WARRANTY

WARRANTY to **Transbay Joint Powers Authority**
(Owner Name)
201 Mission, Suite 2100, San Francisco, CA
(Owner Address)

We hereby warrant and guarantee that the _____
(Description of Work)

which we have installed at Transbay Transit Center has been done in strict accordance with the plans and specifications, and that the work installed will fulfill the requirements of those specifications.

We agree to repair or replace, or cause to be repaired or replaced, any or all of the work which may prove to be defective in workmanship or materials, together with any adjacent work which required repair or replacement because of our defective work within a period of _____ year(s) from the filing of the Notice of Completion on all improvements, or acceptance by the Owner of the building, whichever is later.

If we fail to commence to comply with the above paragraph within ten (10) days after receipt of written notice, or fail to pursue such compliance with diligence, we jointly, and severally, do hereby authorize the Owner or the General Contractor to proceed to have the defects repaired and made good at our sole expense, and we will honor and pay the costs and charges for it together with interest at the maximum rate permitted by law upon demand. If we fail to fulfill the preceding obligations, and if Owner or General Contractor bring an action to enforce this Warranty, we agree to pay Owner or General Contractor reasonable attorney's fees incurred in connection therewith.

SUBCONTRACTOR:	CONTRACTOR:
_____	WEBCOR/OBAYASHI JOINT VENTURE
BY:_____	BY:_____
DATE:_____	DATE:_____
LICENSE NO._____	LICENSE NO. 928731A, B, C-8

LOCAL REPRESENTATIVE TO BE CONTACTED FOR SERVICE:

NAME:_____

ADDRESS:_____

TELEPHONE:_____

Exhibit C

LIEN RELEASES

Form Number	Form Title
1034	Conditional Waiver and Release Upon Progress Payment
1035	Unconditional Waiver and Release Upon Progress Payment
1036	Conditional Waiver and Release Upon Final Payment
1037	Unconditional Waiver and Release Upon Final Payment

CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
***California Civil Code* Section 8132**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: Webcor/Obayashi Joint Venture
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority
Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Webcor/Obayashi Joint Venture
Amount of Check: $_____
Check Payable to: _____

Exceptions

This document does not affect any of the following:
(1) Retentions.
(2) Extras for which the claimant has not received payment.
(3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
Date(s) of waiver and release:_____
Amount(s) of unpaid progress payment(s): $_____
(4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature
Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
***California Civil Code* Section 8134**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: Webcor/Obayashi Joint Venture
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority
Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment: $_____

Exceptions

This document does not affect any of the following:
(1) Retentions.
(2) Extras for which the claimant has not received payment.
(3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT
***California Civil Code* Section 8136**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: Webcor/Obayashi Joint Venture
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Webcor/Obayashi Joint Venture
Amount of Check: $_____
Check Payable to: _____

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT
***California Civil Code* Section 8138**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: Webcor/Obayashi Joint Venture
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
***California Civil Code* Section 8132**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
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Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
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Conditional Waiver and Release

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(3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
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(4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature
Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
***California Civil Code* Section 8134**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
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Unconditional Waiver and Release

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Exceptions

This document does not affect any of the following:
(1) Retentions.
(2) Extras for which the claimant has not received payment.
(3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT
***California Civil Code* Section 8136**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____
Amount of Check: $_____
Check Payable to: _____

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT
***California Civil Code* Section 8138**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: Transbay Transit Center 425 Mission St. San Francisco, California
Owner: Transbay Joint Powers Authority

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

Exhibit D

SAMPLE CERTIFICATE OF INSURANCE
AND ADDITIONAL INSURED ENDORSEMENT

Form Number	Form Title
ACCORD 25	Certificate of Liability Insurance
CG 201 10 11 85	Additional Insured - Owners, Lessees or Contractors (Form B) - Commercial General Liability
WC 04 03 06	Waiver of Our Right to Recover from Others Endorsement

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
ANY AGENT OR BROKER
STREET ADDRESS
CITY, STATE, ZIP
PHONE/FAX

SAMPLE

CONTACT NAME:
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS:

INSU		NAIC #
INSURER A :	XYZ INSURANCE COMPANY (RATED A-VII OR BETTER BY AM BEST)	
INSURER B :		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

INSURED
ABC SUBCONTRACTOR
STREET ADDRESS
CITY, STATE, ZIP

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC	X	X	XYZ123456			EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ TBD
							MED EXP (Any one person)	$ TBD
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			XYZ654321			COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
A	UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			XYZ123456			EACH OCCURRENCE	$
							AGGREGATE	$
								$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	XYZ123456			X WC STATU-TORY LIMITS OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	POLLUTION LIABILTY PROFESSIONAL LIABILITY			XYZ123456 XYZ123456				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

RE: Transbay Transit Center Building

CERTIFICATE HOLDER

Webcor/Obayashi Joint Venture
951 Mariners Island Blvd., 7th Floor
San Mateo, CA 94404-2514

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mary Jane Doe

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" needs to be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement forms a part of Policy No. XYZ 1234567

Issued to: ABC SUBCONTRACTOR

By: XYZ INSURANCE COMPANY

Premium (if any) TBD

We have a right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us).

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be 2-5% of the California workers compensation premium otherwise due on such remuneration.

Schedule

Person or Organization	Job Description
WEBCOR/OBAYASHI JOINT VENTURE, Its Officers, Directors and Employees AND TRANSBAY JOINT POWERS AUTHORITY, its Board Members and Commissions, All Authorized Agents and Representatives, and Members, Directors, Officers, Trustees, Agents and Employees of Any of Them.	TRANSBAY TRANSITY CENTER BUILDING.

WAIVER OF SUBRAGATION FOR WORKERS COMPENSATION INSURANCE TO BE INCLUDED.

WC 04 03 06
(Ed. 4-84)

Countersigned by John Doe
Authorized Representative

POLICY NUMBER: XYZ 1234567 COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS (FORM B)

This endorsement modifies insurance provide under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:	WEBCOR/OBAYASHI JOINT VENTURE, Its Officers, Directors and Employees
AND	TRANSBAY JOINT POWERS AUTHORITY, its Board Members and Commissions, All Authorized Agents and Representatives, and Members, Directors, Officers, Trustees, Agents and Employees of Any of Them.
RE:	TRANSBAY TRANSIT CENTER BUILDING.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that Insured by or for you.

If required by your agreement with such insured, this insurance shall be primary insurance for such Insured. If anyone also provides similar insurance for such Insured, then that insurance will be primary, and this insurance will be excess over, or secondary to that insurance.

"The insurance afforded by this policy for the additional insured(s) is primary insurance and any other insurance maintained by or available to the additional Insured(s) is non-contributory."

WAIVER OF SUBROGATION - WORKERS COMP

CG 20 10 11 85

Exhibit "D"

TRANSBAY TRANSIT CENTER

LEED Subcontractor Submission Letter and Data Sheet

March 13, 2014 Revision 3

WEBCOR/OBAYASHI JOINT VENTURE
SAN FRANCISCO, CA

EXHIBIT E

Exhibit E – LEED Trade Subcontractor Submission Letter & Data Sheet

Transbay Transit Center
Webcor/Obayashi Joint Venture
175 Beale Street
San Francisco, CA 94105
T 415-978-5700

To Whom It May Concern:

In our efforts to complete LEED Documentation for the **Transbay Transit Center Project** we will need the following information provided on your official company letter head:

1. Company Name & Contact Information

2. Contract Value

3. Progress Report Date

4. Scope of work included in Contract with specific Division and Sections listed.

5. **List of all materials permanently installed on the project**, within the LEED boundary that were included in the contract. A total estimated weight value and total actual material cost must be provided for each material. Please provide exact Material name & manufacturer, division and specification section number (XX XX XX).

6. Recycled content (**post-consumer and pre-consumer broken out separately**) percentages for each material from CSI Masterformat 2004 Edition Divisions 3-10, 31 (Section 31 6X XX Foundations) and 32 (Sections 32 1X XX Paving, 32 3X XX Site Improvements, 32 9X XX Planting). Please provide cut sheets of each material with the recycled content values posted.

7. List the location of material extraction (city, state, country) and material manufacturing (city, state, country) for all materials from CSI Masterformat 2004 Edition Divisions 3-10, 31 (Section 31 6X XX Foundations) and 32 (Sections 32 1X XX Paving, 32 3X XX Site Improvements, 32 9X XX Planting). Specifically, we are looking for those materials that were **both extracted and manufactured** within a weighted total travel distance of 500 miles of the jobsite. Per addendum to the BD+C v2009 Reference Guide, weighted total travel distance under Option 2 of the MR Credit 5 Regional Materials should be calculated using the following formula: (Distance by rail/3) + (Distance by inland waterway/2) + (Distance by sea/15) + (Distance by all other means) ≤ 500 miles [800 kilometers]. If you are sure that your materials do not comply as Regional Material, please note that the material was extracted/manufactured "greater than 500 miles" from the jobsite.

8. If you provided any adhesives, sealants, coatings, paints, carpet systems, etc. – please be sure to include these materials on your spreadsheet with the **actual VOC content (g/L**). Please provide proof in the form of a cutsheet, or MSDS highlighting the VOC content value.
    a. All particleboard, MDF, Agrifiber, Veneers, and composite wood products must be **Urea-Formaldehyde free**. Please note "*Urea-Formaldehyde free*" in the VOC column for these material types. All Agrifiber/composite wood products must provide proof of being Urea-formaldehyde free in the form of MSDS, Cut Sheet, or Letter from the Manufacturer.

9. For all materials that contain wood, please specific the FSC Wood **Chain of Custody number** (COC). The COC Certificate and **original purchasing invoices** must be provided as proof of purchase/certification.

LEED Submittals:

A. **Preliminary LEED Material Spreadsheet Submittal** - Within 30 days of Contract award, assemble and submit the "LEED Material Tracking Spreadsheet" complete with all data described in 4-8 above. Cover letter and back up documentation are not necessary for this submittal. The quantities, costs, products, and LEED metrics should be entered in the spreadsheet as the project/contract scope was bid/ estimated. Please see the sample LEED Material Tracking Spreadsheet that you must complete and submit back to Webcor/Obayashi Joint Venture within 30 days of awarded contract.

B. **Quarterly LEED Progress Reports (Reference 01 81 13 1.5 E 2)** – Quarterly LEED Progress Reports are due by February 10 (Q1), May 10 (Q2), August 10 (Q3), and November 10 (Q4) of each year. Assemble and submit the "LEED Material Tracking Spreadsheet" in, PDF and Excel formats, complete with all data described in 4-8 above and based on the Preliminary LEED Material Spreadsheet Submittal. All changes from the previous quarter shall be indicated in bold. Update each Material Status with one of the following: Preliminary, Approved, Bought, or Installed.
    a. Preliminary – Indicates the material has been included in its preliminary stage of planning but has yet to be approved by the design team.
    b. Approved – Indicates the material has been approved by the Design Team as meeting all requirements specified. Include Design Team submittal approval.
    c. Bought – Indicates the material has been bought out after approval by the Design Team.
    d. Installed – Indicates the material has been permanently installed on the project within the LEED boundary.

C. **Final Exhibit E Submittal** – Prior to closeout, assemble and submit all 'actual' LEED material information on the "LEED Material Tracking Spreadsheets" and forms provided in the Project Manual, together with all supplemental documentation as required by LEED. Please see the sample LEED cover letter and Material Tracking Spreadsheet that you must complete and submit back to Webcor/Obayashi Joint Venture prior to closeout on the project.

If you have any questions or concerns, please contact Webcor/Obayashi Joint Venture. If there is any information that you are not able to track down please let us know. We are here to support your LEED efforts.

Sincerely,

WEBCOR/OBAYASHI JOINT VENTURE

[Insert your company logo]
[Type the sender address]
Phone: **[Type the sender phone number]**

Document Control
Transbay Transit Center
Webcor/Obayashi Joint Venture
175 Beale Street
San Francisco, CA 94105
docctrl@webcor-obayashi.com

[**Date**]

To: Webcor/Obayashi Joint Venture,

Please find the following information regarding the scope of work that [subcontractor name] provided to the **Transbay Transit Center project** in San Francisco, CA.

1. Subcontractor's LEED Point of contact information:
   a. Name: _____
      Title: _____
      Email: _____
      Phone #: _____

2. The total contract value of our work is $_____

3. Final Status of all materials: [use LEED Material Spreadsheet]

4. Scope of work (Division/Section): [use LEED Material Spreadsheet]

5. List of Materials included in contract value (weight): [use LEED Material Spreadsheet]

6. Post-Consumer & Post-Industrial Recycled content values for each material (%):[use LEED Material Spreadsheet]

7. Location of Material Extraction & location of Material Manufacturing: [use LEED Material Spreadsheet]

8. VOC Content (g/L) for each material: [use LEED Material Spreadsheet]
   a. VOC values only required for: adhesives, sealants, coatings, paints, carpet & flooring systems
   b. Confirmation of "Urea-Formaldehyde Free" for Agrifiber products: [use LEED Material Spreadsheet]

9. Chain of Custody Number for all FSC Wood Products: [use LEED Material Spreadsheet]

Thank you,

_____

[Insert your company logo]
[Sender Name]
[Sender Title]
[Sender Company Name]
[Date signed]

TTC - LEED Materials Spreadsheet

Trade Group No.: _____

Subcontractor Name: _____

Total Contract Value: _____

Progress Report Date: _____

Material Status (Preliminary, Approved, Bought, Installed)	Official Product Name	Material Manufacturer	Division and Section # (XX XX XX)	Actual Cost of Material	Total Weight of Material Purchased	Post Consumer Recycled Content %	Pre Consumer Recycled Content %	Location of Material Extraction	Location of Material Manufacturing	VOC Content (g/L) (if applicable)	FSC Chain of Custody # (if applicable)

I. Introduction

Webcor/Obayashi Joint Venture is implementing a virtual building process for this project. This process will include building a digital, three-dimensional Building Information Model (BIM) linked to a project cost and labor productivity database, which will provide a platform for collaboration throughout the project's construction. In implementing this virtual building process as further outlined below, the Subcontractors will have the ability to analyze different construction sequences and methods for construction. In turn, the Subcontractor's provision of accurate virtual building data facilitates analysis and mitigation of potential costs and scheduling impacts.

The participants will adhere to the following guidelines in connection with this virtual building process. The costs of all management, administration, software, modeling, drafting, transmission, submittal, meetings, etc. for this process shall be the responsibility of the subcontractor and are included in this Subcontract.

II. 3D Modeling Requirements

Subcontractors will be a part of a team that will meet at least bi-weekly, but not more than twice weekly, for coordination meetings to model the building and its systems, coordinate the work, and build the project virtually. The objectives of these meetings include the elimination of as many conflicts and clashes as possible and the development of reliable schedules that allow for efficient workflow and effective production control. The coordination meetings will occur in multiple phases and as described for Target Schedule Development (TSD) in Subsection IV, Item a, below, but shall precede the TSD at each listed phase.

Webcor/Obayashi Joint Venture will manage and lead the coordination process and assist the subcontractors in bringing the individual models together, running clash detection reports, and generally coordinating the process. The individual participants will be partners in this process, model their work, coordinate this with other trades and building components, obtain submittal approvals from the architect and engineers of record, and relocate/modify their systems as necessary when conflicts arise.

The 3D model consists of geometry control models generated and provided by Webcor/Obayashi Joint Venture and/or the Owner's design team from the 3D Database and system models generated and provided by the Subcontractors for their respective scopes of work. The system models, when integrated with the geometry control models, are referred to as the "Federated Model."

The Subcontractor's system models are the Subcontractor's sole responsibility. Prior to commencing any modeling, the Subcontractor must coordinate the initial model orientation with Webcor/Obayashi Joint Venture. All information in the system models shall be consistent with and based on the Contract Documents. The system model shall be maintained throughout the duration of the Project and updated to reflect as-built

conditions. The degree of detail and accuracy of the Subcontractor's system models shall be sufficient to enable accurate and complete clash detection as well as shop drawing extraction. Subcontractors will be required to print their shop drawings directly from the Federated Model, including dimensions, elevations and location of specific trade elements, based off of the building grid and/or coordinates. The printed material shall comply with the submittal requirements noted elsewhere in the contract documents. Lastly, to allow for model quantity extraction for cost and schedule information, the Subcontractor shall coordinate breakdown and classification of systems in the systems model with Webcor/Obayashi Joint Venture.

The Subcontractor's system models shall be fully compatible with Autodesk Revit, Tekla, or Graphisoft ArchiCAD in the version contemporaneously current with Subcontractor's initial submission of its system model, or the version immediately preceding the contemporaneously current version. It shall be the responsibility of the Subcontractor to maintain this compatibility at its own expense. If more trade specific software is required for a particular system model, Subcontractor must obtain Webcor/Obayashi Joint Venture's prior consent to utilize such software.

The Subcontractor shall transmit its system model to Webcor/Obayashi Joint Venture's BIM Coordinator who will manage the coordination process. The Subcontractor shall be required to perform clash detections and identify conflicts which shall be communicated to the Project team in a discrepancy report. Subcontractor shall review the identified conflicts as set forth in the discrepancy report and jointly develop conflict solutions and modify their system models accordingly. Trade coordination and model modification shall at all times remain a responsibility of each Subcontractor.

a. Modeling Schedule

Webcor/Obayashi Joint Venture will develop a Modeling Schedule showing modeling and coordination efforts required by all subcontractors in order to meet the construction and installation performance shown in the Exhibit I Project construction schedule. Subcontractor will be required to maintain its performance to meet the dates shown in the Modeling Schedule Subcontractor shall ensure that it provides adequate modeling and coordination manpower to maintain the modeling/coordination schedule.

b. Modeling Coordination Meetings

Subcontractor shall participate in BIM coordination and review meetings with Webcor/Obayashi Joint Venture. Subcontractors can expect these meetings to occur at least weekly or biweekly depending on the projects schedule needs. As a result of the information exchanged at such meetings, both the system model and the Work depicted in the Subcontractor's system model may be required to be changed by the Subcontractor to achieve coordination with other elements of the Project being provided by others. In accordance with General Conditions subsection 1.03.G, Subcontractor will be compensated for the associated BIM coordination efforts under the provisions for

Change Orders of Article 6. Subcontractor acknowledges that BIM coordination and review meetings will require attendance of personnel that are familiar with both the data entry aspects of the BIM as well as an understanding of the Work to be performed and its relation to other elements of the Project, and the Subcontractor therefore agrees that personnel conversant in both shall attend all such meetings.

III. Cost and Productivity Data

In addition to the 3-D modeling requirements set forth above, all Subcontractors shall provide accurate cost and productivity information to be imported into a project data base in order to facilitate 4-D (time dimension) and 5-D (cost dimension) modeling. This information shall be broken down such that line items describe work activities for each building system included in Subcontractor's scope of work.

a. Scheduling Information. Subcontractor shall provide detailed scheduling information including, but not limited to, the following:
    i. Provide a list of tasks which identify continuous activities that can be performed with other trades.
    ii. Provide a list of predecessor tasks for each above-defined task that needs to be complete before Subcontractor can start the subject task.
    iii. Provide a list of preferred minimum work areas breakdown. This breakdown shall be based on the minimum work areas that will be necessary for the Subcontractor to work efficiently.
    iv. Provide task and specific location-based activity assignments for each item in Subcontractor Submittal Register when submitted in accordance with Exhibit F, Item III.A.12.
    v. All information noted within this Item 'a.' shall be provided within 15 days of Subcontract award.
b. Cost Information. Subcontractor shall provide detailed cost estimating information including, but not limited to, the following:
    i. Provide a cost plan broken down into separate line items for each scheduled task defined as continuous Trade Subcontractor activity without interference from other trades and no less than one task per crew in each work area identified in the Project Schedule and coordinated with Subcontractor's task list per 4-D (time dimension) above.
    ii. Each estimate line items shall provide labor, material and equipment pricing.
    iii. Labor components shall include applicable hourly rate(s) and productivity in units per man-hour as well as crew composition.
    iv. Material component shall be of sufficient degree of detail to provide unit pricing per estimate/schedule line item.
    v. Equipment component shall include equipment type productivity in unit per machine hour as well as equipment unit cost.
    vi. General conditions costs shall be listed as a separate line item.

vii. This information shall be provided within 15 days of Subcontract award.

c. Production Control Requirements.
   i. Subcontractor shall participate in Production Control Phase Planning sessions as described at Item IV of this exhibit, below, and commit to certain performance based on production rates. By accepting the provisions of this section, Subcontractor expressly agrees to work collaboratively with other subcontractors to promote a high level of productivity and agrees to timely perform its Work so as not to cause delay or disruption of other subcontractors work.
   ii. Subcontractor shall provide a written report on task progress for each task and at each location on a daily basis and as described in Exhibit F, Item III.B.10. The written report shall include the following Production Control related information for each task, and at each location:
      i. Actual man hours worked
      ii. Actual crew size and composition for each task, at each location.
   iii. Each week, Subcontractor shall submit a marked-up schedule indicating the actual start and actual finish dates, as applicable, for each task, at each location.
   iv. If a subcontractor fails to meet its required production rate, the Project Team will evaluate the need for additional resources.
   v. Subcontractors will be required to commit to actions to restore required production rates (Control Actions) if the production rate is too low due to reasons within its own influence.

IV. Project Scheduling and Production Control Phase Planning

Project Schedule, is a critical path method (CPM) schedule that shows the initial plan to construct the project. This schedule sets forth certain dates for performance and a general sequence of construction that is subject to change based on project requirements and as set forth in Section G of the Instructions to Bidders.
Because the BIM requirements contained in this exhibit provide an opportunity to develop a schedule that is optimized for subcontractor performance efficiencies, it is the intent of the Project Team to employ production control techniques to manage the day-to-day construction of the Project. This process will proceed generally in the following manner and is affirmatively acknowledged by Subcontractor as follows:

a. Subcontractor agrees to participate in phased Target Schedule Development (TSD) at completion of each of the following stages of Consolidated Model Development:
   i. TSD#1 – Foundation & Substructure
   ii. TSD#2 – Superstructure & Exterior Envelope
   iii. TSD#3 – Mechanical, Electrical, Plumbing, Sprinkler (Fire) [MEPS]
   iv. TSD#4 – Interior Finishes
   v. TSD#5 – Commissioning

b. Phased Target Schedule Development (TSD) requirements:
    i. Subcontractor agrees that durations for Subcontractor's tasks at each location will be calculated based on quantities at each location divided by the Subcontractor's crew production rate
    ii. Subcontractor agrees to assist with optimization of the overall performance schedule for all trades, working from visualization(s) of labor flow using a Flowline chart (a modified Line of Balance schedule), to:
        i. Balance the number of crews to improve flow
        ii. Remove labor or material spikes to increase manageability and reduce site conflicts
    iii. Use risk analysis to determine buffer placement points and durations required to minimize risk
c. Subcontractor agrees to participate in Mid-Phase Re-optimization Development at least one (1) additional time following each of the TSD for phases of Consolidated Model Development described in Item A, above:
    i. Mid-Phase Re-optimization Development (MRD) requirements:
        i. Subcontractor agrees that durations for Subcontractor's tasks at each location will be calculated based on quantities at each location divided by the Subcontractor's crew production rate.
        ii. Subcontractor agrees to assist with optimization of the overall performance schedule for all trades, working from visualization(s) of labor flow using a Flowline chart (a modified Line of Balance schedule), to enable the following:
            i. Balance the number of crews to improve flow
            ii. Remove labor or material spikes to increase manageability and reduce site conflicts
            iii. Use risk analysis to determine buffer placement points and durations required to minimize risk

V. Miscellaneous Provisions

a. Model Ownership: In accordance with Article 2, subsection 2.07A, BIM files, and other computer files created for the Project shall be made and remain the property of the TJPA, including all intellectual property rights to all documents or materials.
b. Protection of Intellectual Property or Proprietary Information: Subcontractors who provide intellectual property and/or proprietary information which is incorporated into their models shall provide notification of the confidentiality of the information.
c. Other Subcontract Requirements: Subcontractor agrees that neither the BIM nor the use of the BIM is in lieu of nor intended to relieve the Subcontractor of its responsibilities under the Subcontract, including, without limitation, to (i) coordinate its Work with the work of others involved in the Project and (ii) strictly

comply with the other requirements of the Subcontract Agreement and the Contract Documents. It is expressly understood and agreed that, notwithstanding the requirement for submittals in connection with the BIM, other submissions shall be required of Subcontractor as required by the Contract Documents.

d. BIM Liability: Subcontractor acknowledges and agrees that the TJPA and Webcor/Obayashi Joint Venture shall incur no responsibility or liability with respect to the BIM or the use thereof, including that resulting from errors, omissions or deficiencies in the BIM. In the event that Subcontractor provides deficient information or data that does not represent the Work it will ultimately be providing, or that is corrupted in that the information transmitted contains a virus, and/or that otherwise damages the BIM, Subcontractor shall bear all costs associated with reconstructing the BIM and to otherwise remediate such deficiencies and their effects. In the event Subcontractor discovers an apparent error, inconsistency or omission in its information or submissions it shall notify Webcor/Obayashi Joint Venture within 72 hours and via written correspondence. In the event Subcontractor discovers an apparent error, inconsistency or omission in the information or submissions provided by others Subcontractor shall promptly request clarification of the same from Webcor/Obayashi Joint Venture, with a written Request for Information per General Conditions Article 6.03.

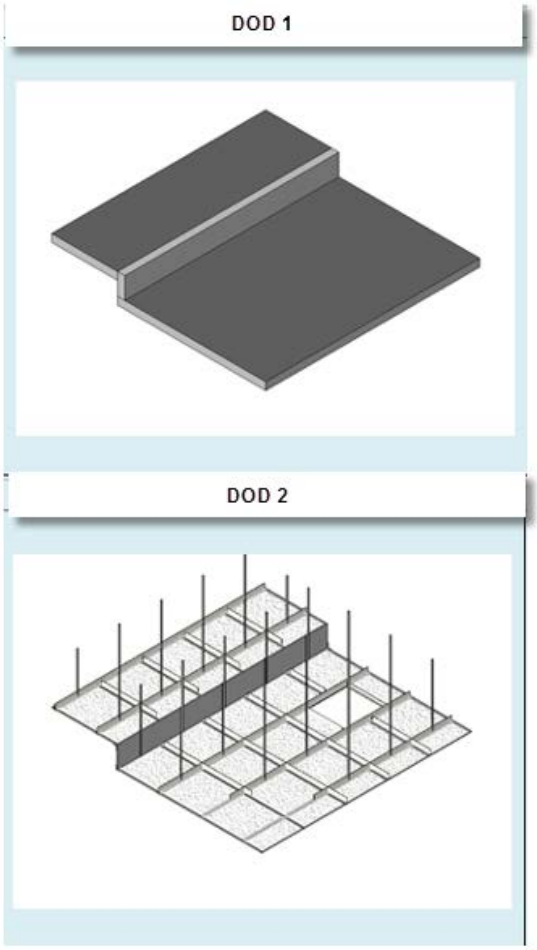
VI. Modeling Specification

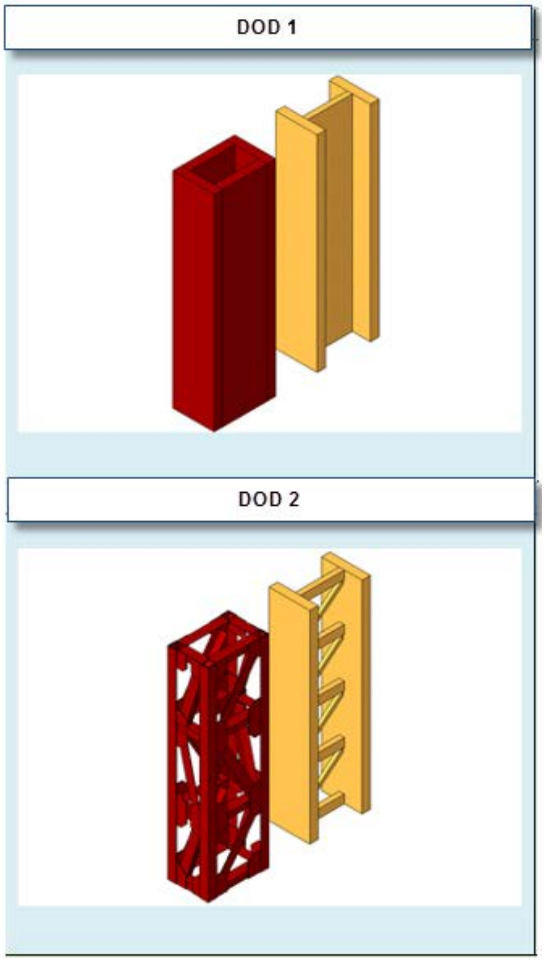
a. The goal, through 3D coordination, is to create fully coordinated shop drawings derived from using the Models produced and coordinated by each discipline. These models would then be used for scheduling (4D) and cost management (5D) purposes. This section describes the **Degree of Detail (DOD)** to which each system will be modeled and whether the system should fall under the standard or high level category.

i. DOD 1 indicates standard degree of detail where elements match the approximate space and shape the element occupies or the space required to access equipment for maintenance. Accurate geometry of components with rectangular cross sectional geometry. Components of complex cross sectional geometry are approximated with simplified cross sections and modeled with accurate enveloping geometry. Composite structures are modeled with solids. Symbolic representation of fixtures, equipment, furniture and like.

ii. DOD 2 indicates a high degree of detail dimensionally accurate, and where applicable, manufacturer specific element (does not require manufacturing/fabrication detail – exterior envelope is required) Accurate

geometry of components with rectangular and complex cross sectional geometry. The individual layers of composites are broken down to smaller components and built up piece by piece. Exact representation of fixtures, equipment, furniture and like. The model will include secondary components that may influence coordination, such as gusset plates, secondary steel members, hangers, braces etc.





Please refer to the Trade Specific BIM Requirements below for the list of systems that are required to be modeled.

VII. Change Management

Subcontractor will maintain its system model throughout the project duration, incorporating all changes that impact its Work. Subcontractor will update its Work as required through participation in the 3D coordination process outlined above. Subcontract may be required to re-extract shop drawings and prepare updated submittals to incorporate changes to its Work.

After each model update for a change package (e.g. ASI), Subcontractor shall archive a copy of its model before incorporation of further changes. Using versions of its system model, Subcontractor shall publish quantity deltas per system between models. Subcontractor will apply it's bought out unit rate for a particular changed system to the quantity delta to calculate the value of the change per the original contract. This value will serve as a baseline to enable change orders negotiations.

Exhibit F - Trade Specific BIM Requirements

Trade	*System*	*As-Built Delivery DOD*
Metal Stairs and Ladders (TG 07.5R)	Metal stairs with all associated rails	2
	Metal landings with supporting associated framing, posts, base plates, metal deck and gates	2
	Illuminated rails with undermount lighting (lighting by others)	1
	Metal toe gaurds	1
	Metal ships ladders with railings, straight ladders with and withoug cages and platforms, ladder security posts and gates, screens	1
	Embeds and attachements for this scope of work	1
	Metal platforms	1

Exhibit G

SUBCONTRACTOR PAYMENT REQUISITION

1. Forms Checklist

2. Forms

	Form Number	Form Title
i.	1030	Subcontractor Progress Billing Invoice
ii.	1030A	Schedule of Values
iii.	1031	Subcontractor Final Retention Invoice
iv.	1031A	Schedule of Value Retention Release
v.	00 08 21/AT3-E (modified)	Progress Payment Report (With Additional SBE Columns)

Forms Checklist

**This checklist is provided as a reference, but may not be a complete list. Refer to the Contract Documents for all required submissions and their frequency.

#	FORMS	FORM	FREQ	REF
1	**CityBuild Workforce Projection Form 1 and 2** - Non-compliance results in removal from site	00 08 20/AT1 00 08 20/AT2	Initial	Div 00 08 20 1.7
2	**Schedule of Values**	1030A	Initial / Monthly	Exhibit G
3	**Daily Report** (must be CURRENT at the time of pay app submission and payment)		Daily / Monthly	Bid Manual IV. A. 4. c.
4	**Subcontract Progress Billing Invoice**	1030	Monthly	Exhibit G
5	**Conditional Waiver and Release Upon Progress Payment**	1034	Monthly	Exhibit C
6	**Unconditional Waiver and Release Upon Progress Payment**	1035	Monthly	Exhibit C
7	**TJPA ARRA Jobs Report Form**	v 1.2	Monthly	Div 00 08 13, 1.2.E & APF
8	**Manpower Projection**		Monthly	Bid Manual IV. A. 38. a.
9	**Billing Projection** / Cashflow Projection		Monthly	Bid Manual IV. A. 37. a.
10	**TJPA Progress Payment Report**	00 08 21/AT3-D	Monthly	Div 00 08 21, 1.5.B
11	**Subcontractor Payment Declaration**	00 08 21/AT3-E	Monthly	Div 00 08 21, 1.5.C
12	**Project Specific Insurance** (Must be CURRENT)		Monthly	Long Form Subcontract 16
13	**Certified Payroll**, weekly electronic submission (CURRENT at the time of pay app submission and payment) including subtiers		Weekly / Monthly	Long Form Subcontract 4.2
14	**Apprentice Training Fund Contributions** proof of payment	a) Copy of trust fund remittance report w/ copy of cancelled check OR b) DAS Form CAC 2 w/ copy of cancelled check	Monthly	Bid Manual II. F. 6. c. & Long Form Subcontract 4.2 & Div 00 08 22 1.2 D.
15	**Apprenticeship min/max ratio verification -** if under, submit a plan to satisfy requirement by the end of the project without exceeding daily max; if over, provide written explanation for each day of violation		Monthly	Bid Manual
16	**Apprenticeship Monthly Trade Subcontractor Affidavit**		Monthly	Bid Manual, Exhibit Q
17	**Request for Dispatch of an Apprentice (DAS 142 Form)** - if any	DAS 142	Monthly	Bid Manual
18	**Apprentice documentation** - documentation on employed apprentices that are current and properly registered as required by specs		Monthly	Div 00 08 13/APA, Section 23 (d) (1)
19	**EIC Form** from eligible subcontractor employees		Yearly	Div 00 08 22 1.9 C (all of 1.9)
20	**LEED - NC Version 3.0** (monthly summaries and deliverables)		Monthly	Bid Manual IV. A. 40. a. and Div 01 81 13 1.5 D.1-4
21	Reconciled Excel submittal form with Trade Package Progress Schedule (2 times a month) - NOTE: In Div 01 our updated schedule must be submitted in our Progress Payment Request, see 01 13 10 1.5 E.		Monthly	Bid Manual IV. A. 35. f. and C.1.J
22	**Weekly Safety "Tool Box" Meeting Minutes** (must be CURRENT at the time of pay app submission and payment)		Weekly / Monthly	Bid Manual IV. B.
23	**JHA Reports** (Job Hazard Analysis Reports) (must be CURRENT at the time of pay app submission and payment)	H4	Monthly	Bid Manual IV. B.
24	**Monthly Disposal and Recycling Summary Report** (Waste Management Requirements)	00 08 15 / APA - 1 and 00 08 15 / APA - 12	Monthly	Div 00 08 15 1.5 C 1 and 2
25	(Contractor) **CONSTRUCTION AND DEMO DEBRIS RECOVERY MONTHLY SUMMARY REPORT** monthly with Pay App		Monthly	Div 01 74 00 1.8 A. B.
26	**DBE Trucking Verification**, due at end of month, need amount paid by DBE Trucking companies to all firms, including owner-operators, for leasing of trucks - DUE TO TJPA by Contractor on the 15th of the month to TJPA	Monthly DBE Trucking Verification Form	Monthly	Div 00 08 21/AT2 5 b. i. and ii.
27	**Up to date As-builts drawings** on site at all times		Monthly	Bid Manual IV. K. 1. a.
28	**Stored Materials Documentation**		Monthly	Div 00 07 00, 1.4.I
29	**Daily Sign In and Out Sheet** (must be CURRENT at the time of pay app submission and payment)	TJPA Daily Sign-in Sheet	Daily / Monthly	Div 00 07 00 57, Article 11, 11.04
30	**Daily Quality Control Reports** (must be CURRENT at time of pay app submission and payment)		Daily	Dic 00 14 00 1.12 and Exhibit J
31	**Trade Package Progress Schedule** update in electronic format (must be CURRENT at the time of pay app submission and payment)		Monthly	
32	**LEED Progress Reporting** with each pay app		Monthly	
33	**Updated Bidders / Proposers Information Request Form** - must be submitted whenever subcontractor information is updated, regardless of SBE participation	00 08 21/AT3-B	As-needed	Div 00 08 21 1.3E
34	**Conditional Waiver and Release Upon Progress Payment** - subtiers and vendors	1034	Final	Exhibit C
35	**Unconditional Waiver and Release Upon Progress Payment** - subtiers and vendors	1035	Final	Exhibit C
36	**Subcontractor Final Retention Invoice**	1031	Final	Exhibit G
37	**Schedule of Values Retention Release**	1031A	Final	Exhibit G
38	**Conditional Waiver and Release Upon Final Payment**	1036	Final	Exhibit C
39	**Unconditional Waiver and Release Upon Final Payment**	1037	Final	Exhibit C
40	**Conditional Waiver and Release Upon Final Payment** - subtiers and vendors	1036	Final	Exhibit C
41	**Unconditional Waiver and Release Upon Final Payment** - subtiers and vendors	1037	Final	Exhibit C
42	**Final** weekly electronic submission of **Certified Payroll** (must be CURRENT at the time of pay app submission and payment) including subtiers		Final	Long Form Subcontract 4.2
43	One compact disk containing electronic files in .dwg format and pdf format and three (3) sets of accurate and complete As-built drawings - Complete As-builts are due upon completion. - prior to requesting final payment		Final	Bid Manual IV. K. 1. e and f.
44	**Operations and Maintenance Manuals** shall be submitted 12 months prior to start of commissioning and prior to requesting final payment		Final	Bid Manual IV. K. 1. f.
45	Evidence of final payment to Unions and Union Trust Funds, State Apprenticeship Programs (subs who are not signatory to unions)		Final	Long Form Subcontract 4.2

Forms Checklist

**This checklist is provided as a reference, but may not be a complete list. Refer to the Contract Documents for all required submissions and their frequency.

#	FORMS	FORM	FREQ	REF
46	**Apprenticeship Trade Subcontractor Affidavit** - that the required number of apprentices were employed and/or records showing that the apprenticeship committee(s) either denied or failed to respond to a request for the dispatch of apprentices in accordance with Labor Code Section 1777.5		Final	Bid Manual, Exhibit Q
47	**Warranties** must be submitted prior to requesting final payment		Final	Div 01 17 00 1.4 A 3. b.
48	Spare Parts and material extra stock		Final	Div 01 17 00 1.4 A 3. d.
49	**Final (Contractor) CONSTRUCTION AND DEMO DEBRIS RECOVERY SUMMARY REPORT**		Final	Div 01 74 00 1.8 D.
50	**Final LEED Final Reports and Documentation**		Final	Bid Manual IV. A. 40. a. and Div 01 81 13 1.5 D.1-4
51	**Final Disposal and Recycling Summary Report** (Waste Management Requirements)	00 08 15 / APA - 1 and 00 08 15 / APA - 12	Final	Div 00 08 15 1.5 C 1 and 2

Subcontractor Progress Billing Invoice

Send invoice to:
EMAIL: ap@webcor.com
FAX: (510) 748-3474
MAIL: 1751 Harbor Bay Parkway, Suite 200 Alameda, CA 94502

Billing Information		***Subcontractor Contact Information***	
Owner Pay App NO.		Subcontractor Name:	
Vendor Number		Remittance Address:	
Webcor/Obayashi Joint Venture Subcontract Number:		City, State, Zip:	
Webcor/Obayashi Joint Venture Job Number:	30100.XX	Contact Name:	
Job Name:	Transbay Transit Center	Contact Email Address:	
Pay App Number:		Contact Phone Number:	
Invoice Number:		Contact Fax Number	
Invoice Date:		Print Signer's Name and Title:	
Sub Job Number:			
Period From:		**Signature**	
Period To:		**Date Signed**	

The following invoice covers work completed through the last day of _____

Original Contract Amount:		$0.00
Executed Change Orders (CO) though CO No:		$0.00
Total Revised Contract Amount:		$0.00
Gross Amount Complete to Date %		$0.00
Less Gross Amount Previously Invoiced:		$0.00
Current Gross Billing Amount:		$0.00
Less Current Retention:		$0.00
Current Net Amount:		$0.00

Webcor/Obayashi Joint Venture Approvals below this line

Schedule of Values

Sub:
Sub No.:

Transbay Transit Center

Sub Application Number:
Invoice Date:
Webcor/Obayashi Joint Venture Job No: 30100.XX

In tabulations below, amounts are stated to nearest dollar

Period From:
Period To:

A			B	C	D	E	F	G	H	I	J
Item No.	CSI Division	Spec Section	Description of Work	Scheduled Value	Previous Application	Work Completed This Application		Total To Date (C+D+E)	% (F/B)	Balance To Finish (B-F)	Retention To Date
						In Place	Stored				
1											
2											
3											
4											
5											
6											
7											
8											
			Sub Total								
PCO #	CSI Division	SCO No.	Approved Change Orders								
			Total Change Orders								
			Grand Total								

Subcontractor Final Retention Invoice

Send invoice to:
EMAIL: ap@webcor.com
FAX: (510) 748-3474
MAIL: 1751 Harbor Bay Parkway, Suite 200 Alameda, CA 94502

Billing Information		***Subcontractor Contact Information***	
Vendor Number (W/O JV Use Only)		Subcontractor Name:	
Invoice Number:	RETENTION:	Remittance Address:	
Invoice Date:		City, State, Zip:	
Webcor/Obayashi JV Subcontract Number:		Contact Name:	
Webcor/Obayashi JV Job Number:	30100.XX	Contact Email Address:	
Job Name:		Contact Phone Number:	
Transbay Transit Center		Contact Fax Number	
		Print Signer's Name and Title:	
		Signature & Date	Date Signed

The following invoice covers work completed through the last date of _____ (Month), _____ (Year):

Contract Amount:		$ -
Executed Change Orders Through Change Order NO:	_____	$ -
Total Revised Contract Amount:		$ -
Gross Amount Complete to Date % (_____ %)		$ -
Less: Total Net Amount Previously Billed:		$ -
Total Amount Due:		$ -

********** ** ********** *** **********

For Webcor /Obayashi JV Use only

Schedule of Values Retention Release

Sub:
Sub No.:

Transbay Transit Center

Sub Application Number:
Invoice Date:
Webcor/Obayashi Joint Venture Job No: 30100.XX

In tabulations below, amounts are stated to nearest dollar

Period From:
Period To:

A			B	C	D	E	F	G	H	I	J
Item No.	CSI Division	Spec Section	Description of Work	Scheduled Value	Previous Application	Work Completed This Application		Total To Date (C+D+E)	% (F/B)	Balance To Finish (B-F)	Retention To Date
						In Place	Stored				
1											
2											
3											
4											
5											
6											
7											
8											
			Sub Total								
PCO #	CSI Division	SCO No.	Approved Change Orders								
			Total Change Orders								
			Grand Total								

TRANSBAY JOINT POWERS AUTHORITY
PROGRESS PAYMENT REPORT
(WITH ADDITIONAL SBE COLUMNS)

To be completed by Trade Subcontractor and submitted to Project Manager with every monthly invoice.

PART 1: PROJECT SUMMARY

Contract Award Date:	TJPA Contract No.:	Contract Title:	
Trade Subcontractor:	Contact Person:	Contact Phone No.:	Contact Email:
Trade Subcontractor Address	Signature:		
Invoice Date:	Invoice No.:	For the Period:	

1. Award amount of Trade Subcontract	$ -
2. Amount of Change Orders, Amendments and Modifications to Date	$ -
3. Total Contract Amount to Date including Change Orders, Amendments and Modifications (Line 1 + Line 2)	$ -
4. Total Amount for this Invoice (Less Retention)	$ -
5. Total Previously Invoiced Awaiting Payment (Less Retention)	$ -
6. Total Amount Paid to Date (not including Lines 4 and 5)	$ -
7. Total Invoice Amount Requested to Date (Line 4 + Line 5 + Line 6)	$ -
8. Total Retention to Date[1]	$ -
9. Percent Complete ([Line 7 + Line 8] / Line 3)	0%

TRANSBAY JOINT POWERS AUTHORITY
PROGRESS PAYMENT REPORT
(WITH ADDITIONAL SBE COLUMNS)

PART 2: CONSULTANT/SUBCONSULTANT PAYMENT DETAIL SUMMARY

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Name of Firm (Including Prime, Subs, Vendors, and Joint Ventures)[4]	**DBE or SBE (Y/N)**	**Portion of Work (%)**	**Contract Amount ($)**	**Amount of Change Orders to Date ($)**	**Total = Contract Amount + Change Orders (D+E) ($)**	**Amount Invoiced This Period ($)**	**Previously Invoiced Awaiting Payment ($)**	**Total Amount Paid to Date ($)**	**Total Retention to Date[1] ($)**	**Percent Complete to Date ([G+H+I +J] / F) (%)**	**SBE Participation Type[2]**	**SBE Participation Percentage[3] (%)**	**SBE Participation Lump Sum[3] ($)**	**SBE Total Contract Amount[3] FxM+N ($)**	**Percent SBE Contract Amount (O/F) (%)**	**SBE Amount Paid to Date ($)**	**Percent SBE Paid to Date (Q/I) (%)**
					$0.00					#DIV/0!				$0.00	#DIV/0!		#DIV/0!
					$0.00					#DIV/0!				$0.00	#DIV/0!		#DIV/0!
					$0.00					#DIV/0!				$0.00	#DIV/0!		#DIV/0!
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TOTAL		0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	0	#DIV/0!	0	#DIV/0!

[1] As retention is requested and paid, move out of "Total Retention to Date" and into "Amount Paid to Date"

[2] SBE Participation Types: (Select 1 Only) SBE Prime Contractor, SBE Subcontractor, SBE Joint Venture Partner, SBE Regular Dealer,Other SBEs, SBE Trucking Company (refer to TJPA Board Policy No. 015 Section IV)

[3] If SBE participation is Other SBE, SBE Joint Venture Partner or SBE Trucking Company enter lump sum participation in column N in lieu of column M (Refer to TJPA Policy No. 015 Section IV)

[4] If SBE Firm has multiple participation types each type should be listed as separate line item

TRANSBAY TRANSIT CENTER

Site Specific Safety Program
Revision **8**

December 19, 2013

WEBCOR/OBAYASHI JOINT VENTURE
SAN FRANCISCO, CA

EXHIBIT H

Contents

WEBCOR/OBAYASHI JOINT VENTURE STATEMENT ON SAFETY

It is the policy of Webcor/Obayashi Joint Venture to provide employees a safe place to work. The personal safety and health of each employee of this company is of prime importance. The prevention of accidents and injury will be given precedence over operating productivity whenever necessary. To the greatest degree possible, management will provide facilities required for personal safety and health.

Our objective is a program that will reduce the number of injuries to a minimum and to surpass the best experience of other operations similar to ours. Our goal is zero accidents and injuries.

Our policy will be implemented as follows:

- Management will continue to develop policies and procedures that will assist in the control of personal injury, property losses, and fleet damage. Direct and indirect costs associated with these types of losses contribute unfavorably to operating expenses. These policies and procedures will be reviewed and updated as needed.

- Safety is the direct responsibility of all personnel. Safety is of prime importance to production and quality.

- Safety on the job in all company facilities and job sites is a priority. In no instance will safety become secondary to any other considerations. Any recognized safety activity or hazard will be corrected.

- It is mandatory that all personnel engaged in work on this project comply with all Federal, State and Local safety codes and regulations throughout the duration of their construction on this project.
- Each site will have a supervisor available to support the safety effort.

- Each supervisor and employee will be assigned various levels of safety responsibility and authority. All employees will be held accountable for the safety policy.

- An established system of communication, measurement, and documentation exists throughout the company.

A Safety Committee is in place to formulate and update the company safety program and policies. This committee operates under the supervision of management.

HEALTH AND SAFETY COMMUNICATIONS

Orientation
This training will contain required elements stipulated by Webcor/Obayashi Joint Venture code of safe work practices.

The Webcor/Obayashi Joint Venture site-specific safety orientation will be approximately one half (1/2) hour to 45 minutes in duration. The orientation includes a discussion on site protocol, evacuation procedures and a description of the logistics of the site. Subcontractors are required to provide other task specific orientations as needed.

Click Safety Program
Project: Transbay Transit Center
Notification of Online Contractor Safety Training Initiative

Webcor/Obayashi Joint Venture and ClickSafety have partnered to create a web-based Contractor Safety orientation course for the Transbay Transit Center. All contractors requiring access to the Transbay Transit Center project must complete the Safety Passport orientation-training course online through ClickSafety. This course addresses site-specific safety expectations/requirements that you and your employees are expected to understand and comply with while working on the premises.

Project Requirements
ClickSafety is the leading provider of web-based safety and risk management systems for the Construction Industry. ClickSafety will be providing the online training and tracking system used to deliver safety orientation. You will be required to have ALL your employees successfully complete the online Safety Passport Orientation, Transbay project specific training and the Click Green Construction Practices through the ClickSafety system prior to their arrival onsite. The average employee should take 30 minutes to complete the Safety Passport and 15 minutes for Transbay project specific training and 10 minutes to complete Click Green Construction Practices. The course will be available in both English and Spanish.

Project Fees
The fee structure for ClickSafety services is a ……***$100 annual fee per user.**
*Prorate will apply to those that begin the training after Q1 of the current year.

The prorate schedule is as follows:

January 1 – March 31	*$100*	*Valid January - December 2012*
April 1 – June 30	*$75*	*Valid April 1 – December 2012*
July 1 – September 30	*$50*	*Valid July 1 – December 2012*
October 1 – December 31	*$25*	*Valid October 1 – December 2012*

ClickSafety Account Setup, User Registration and Implementation
Step 1: Go to the project page – http://www.clicksafety.com/safetypassport-transbay
Step 2: Create a company account. If you already have an account with ClickSafety, you will still need to register your existing account for this project. Click on the 'Company' tab above the 'User' Step 1 on the home page, and then click on 'Register Company'.

Step 3**:** Assign Safety Passport Core Orientation (annual training) along with site specific training.
Step 4: Prepay for employee training with a credit card and create an access code.
Step 5: Direct all employees to the project page to self-register with your access code and complete training prior to arrival at the jobsite.

For general information about this project or registration assistance, please contact:
ClickSafety Support at (925) 855-SAFE (7233) ext. 629 - cshelp@clicksafety.com

A ClickSafety representative is available to answer any of your questions about this program. The ClickSafety program administrator is: Christina Parkin, Account Manager, (925) 208-2618, Email: cparkin@clicksafety.com.

Should you have specific questions regarding the project or safety requirements, you may contact:

Danielle DiRicco
Safety Engineer
Webcor/Obayashi Joint Venture
T (510) 748-1978
ddiricco@webcor.com

We appreciate your attention in this matter and look forward to a continuing and successful business relationship.

Disclaimer
ClickSafety and Webcor/Obayashi Joint Venture make this training material available with the understanding that users exercise their own skill and care with respect to its use. It is the duty of each employer as specified in the Occupational Safety and Health Act of 1970 (P.L. 91-596) to furnish to each of his employees employment and a place of employment which is free from recognized hazards that are causing or likely to cause death or serious physical harm to his employees and must comply with the applicable occupational safety and health standards adopted for his / her type of work. In addition, each employee must comply with occupational safety and health standards and all rules, regulations, and orders which are applicable to his or her own actions and conduct.

Project Supervisory Requirements
All supervisory personnel shall have as a minimum the OSHA 30 Hour Construction Safety training within the prior four years and possess a current CPR /First Aid and AED certification. In addition supervisory personnel shall have at a minimum 5 years' experience as a superintendent in a similar type of project.

Project Safety Staffing Requirements
Every trade subcontractor shall employ (1) full time on Site Safety Representative (SSR) to coordinate project safety requirements. The SSR shall have at a minimum all the following qualifications:

1. Current CHST certification.
2. Attended the OSHA Standards for the Construction Industry (OSHA 500) training program.
3. (3) Years prior full time safety duty experience working in a like project or condition.
4. Current CPR /First Aid and AED certification.

The SSR shall have no duties other than full time safety and the administration and coordination of the Zone Designated Safety Representative (DSRs).

In addition to the SSR every trade subcontractor shall employ sufficient full time Designated Safety Representative(s) (DSRs) required to have (1) dedicated DSR in every Zone (per sheet SL-004) in which work is in progress regardless of shift, including day shift, off-hours shift work, or weekend work. The DSR shall have at a minimum all the following qualifications:

1. Current OSHA 30 certification
2. Attended the OSHA Standards for the Construction Industry (OSHA 510 or equivalent) training program.
3. (2) Years prior full time safety duty experience working in a like project or condition.
4. Current CPR /First Aid and AED certification.

The DSR shall have no other duties than full time safety and spend 90% of their day in the field at the designated Zone.

The SSR and DSR(s) are subject to Webcor/Obayashi Joint Venture's approval and may be removed at any time with or without cause and replacement personnel shall be provided at the subcontractor's/employer's expense.

SafeSiteOne Safety Inspection Program

Daily safety inspections using SafeSiteOne are required for all Subcontractors performing labor at the jobsite. SafeSiteOne is a Web-based safety software product that is used by Webcor/Obayashi Joint Venture to document, track and analyze daily job site safety performance. A version of the product has been designed to provide Webcor/Obayashi Joint Venture subcontractors with an easy to use feature set delivering new safety process efficiencies, safety performance tracking and a convenient, cost-effective means to comply with Webcor/Obayashi Joint Venture subcontractor safety documentation and reporting requirements. A job site safety inspection form and accident form are provided for subcontractors to document their own work area safety inspections and worker accident and injury information for automated distribution to Webcor/Obayashi Joint Venture eliminating the time and cost burdens of maintaining separate manual processes for documentation, reporting and data distribution. Accident and safety violation tracking tools in the way of data tables and charts displayed on an information Dashboard are provided for subcontractors to monitor their job site safety performance, identify and respond to trends and indicators and continuously improve their safety strategies. Using the product, subcontractors can view all job site safety violations to which they are assigned by Webcor/Obayashi Joint Venture during Webcor/Obayashi Joint Venture site safety inspections and be able to respond and track their closure. Subcontractors will be able to track their own safety records relative to the performance of all subcontractors on the job site providing an ongoing assessment and identifying accomplishments of their safety performance. ***Subcontractors shall include $75.00 per month to cover the costs of the SafeSiteOne Product.***

A SafeSiteOne Daily Inspection is to be completed by each Trade Subcontractor DSR and Field Supervisor(s) (Foreman and above) daily. Safety exceptions are to be addressed to the SSR. Traffic control exceptions are to be addressed to the General Superintendent. Observed exceptions / violations are to be recorded under Comments and assigned to the responsible person. Verbal exceptions / violations are unacceptable unless they are also recorded under the Comments column. The cumulative amount of a Trade Subcontractor's exceptions noted under comments for the month shall be no less than Webcor/Obayashi Joint Venture's cumulative exceptions for the month. The SSR, General Superintendent, and or responsible party shall promptly, competently, and completely respond to every

Safety Memo. ***Recept of progress payment may be contingent upon staying current with completed SafeSiteOne Surveys and Safety Memos.***

Additional features, forms and product customizations can be made available to subcontractors by contacting MedicaOne directly at info@medicaone.com or by calling (415)661-7587. More information is also available by visiting the SafeSiteOne Web site at www.safesiteone.com.

Pre-Task Planning/Job Hazard Analysis

Written, detailed Job Hazard Analysis is required prior to the start, ***at a minimum***, for the following activities:

- Chemicals: hazardous & irritant
- Concrete: pre-cast, tilt up, vertical, form work
- Confined Space
- Hoisting/rigging activities: including cranes, derricks, forklifts, straddle buggies, etc.
- Demolition activities & hazardous materials assessment: asbestos, lead, biohazards or other chemicals in the workplace, as well as general demolition hazards assessment
- All framing activities (including drywall)
- Excavation & trenching
- Fall hazards: exposures 6+ feet, overhead work
- Material handling
- Non-routine activities: activities not performed in the last six months
- Public exposure: phased occupancy, partial demolition, traffic control, etc.
- Scaffolding
- Steel erection
- Start Up/Shut Down/System Testing activities: tool hook up, introduction of process chemicals into systems, utility tie ins, lockout/tag out, work on energized equipment

General Job Hazard Analysis Guidelines

- JHA planning is to be led by the supervisor and documented in writing
- Conducted daily prior to start of work for every task.
- All crew members participate (at the job location) in JHA planning and should sign the completed plan
- Should include hazards and precautions identified in work activities
- Should be readily available at the work site (posted and/or placed where crew members have knowledge of its location at the work area)

JHA plans should be reviewed and revised whenever work conditions (or crew membership) change that may affect the ability to safely complete the work.

Incident Reporting/Root Cause Analysis

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project Documentation and Reporting policy and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Sections 01 13 40 (1.5 A thru C) 01 15 45 (1.9 A thru C) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

The TJPA Representative will in writing inform Contractor of any additional hazardous condition encountered. Trade Sub contractor shall respond indicating its action or disposition of the matter by returning an annotated copy of the written communication to the TJPA Representative within 3 days. If death or serious injuries or serious damages occur, the accident shall be reported at once by telephone or messenger to the TJPA as well as to the proper governing authorities. In addition, Contractor shall promptly report in writing to the TJPA all accidents whatsoever arising out of or in connection with the performance of the work whether on or adjacent to the site, giving full details and statements of witnesses. Within 3 days of occurrence, the Sub Trade contractor shall provide the TJPA with 2 copies of the Sub Trade contractor's accident and near-miss reports. A significant accident is defined to include events where personal injury is sustained or tangible property loss is sustained, or where the event posed a significant threat of loss or personal injury. If a claim is made by anyone against the any Trade Subcontractor on account of any accident, the Sub Trade contractor shall promptly report the facts in writing to the TJPA, giving full details of the claim. Contractor shall provide the TJPA Representative copies of any laboratory test data, and medical monitoring results for record and evaluation within 3 days of receipt of the above information or upon the request of the TJPA Representative.

All incidents and accidents shall be immediately reported to Webcor/Obayashi Joint Venture Project Management/Safety and fully investigated. Investigation and root cause analysis should be completed to identify the primary reason the incident occurred with an action plan developed to prevent recurrence. Incident Reporting and Root Cause Analysis guidelines are discussed further in the following Appendices.

Safety and Health Training/Information

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project Documentation and Reporting policy and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Section 01 15 45 (1.10A) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

The Trade Subcontractor shall maintain on-site all training records in accordance with federal, state, and local statutes, regulations, and policies, and provide copies of these records to the TJPA upon request.

New workers will be provided with initial training and/or orientation prior to assignment or when assigned to a new task for which training has not been received. Supervisors are expected to be knowledgeable and informed on hazards and safe work practices in their area of responsibility and to coordinate the disbursement of this information to crews. Training will include general area and specific assignment topics. Documentation of required training will be made available to Webcor/Obayashi Joint Venture Project Management and/or Webcor/Obayashi Joint Venture safety upon request. Training, to include refresher training will be provided in accordance with Federal/State OSHA guidelines (Refer to Appendices for additional information on required training). Training may include, but not be limited to:

- Aerial/Boom Lifts;
- Asbestos awareness

- Confined Space Entry;
- CPR/First Aid;
- Electrical;
- Excavation & Trenching;
- Fall Protection;
- Fire Watch;
- Forklift;
- Hazard Communication;
- Hazardous Chemicals;
- Ladders;
- Lasers;
- Lead awareness
- Lockout/Tag out
- Powder Actuated Tools
- Respiratory Protection;
- Rigging
- Scaffolding: Use & Erection/Dismantle;
- Steel Erection;
- Job Hazard Analysis;
- Accident investigation training for Foremen & Superintendents;

CODE OF SAFE CONDUCT AND WORK PRACTICES

The following Safety Procedures will be complied with on the Transbay Transit Center project**.** These Safety Procedures are in accordance with Webcor/Obayashi Joint Venture Safety Program and the division of Industrial Safety Cal/OSHA Construction Safety Orders.

General

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project Health and Safety Plan (HASP) and will be submitted to the Joint Transit Power Authority as they are received. All subcontractors must submit their Company's Project Safety Program to the Project Site Safety Manager prior to the start of their work.

As a minimum, the subcontractor's Safety Program shall meet or exceed Webcor/Obayashi Joint Venture safety requirements, the applicable parts of the Webcor/Obayashi Joint Venture Corporate Safety Manual, the contract documents and federal, state, local or other applicable regulations.

Prior to Subcontractors arrival, measures to identify, monitor and control the worker and the general public from identified hazards shall be included in their safety plans. The Program shall be reviewed by the Site Safety Manager who may require, from time to time, additional written Safety Procedures as may be necessary to address the potential hazards of their operations.

Contractor Weekly Safety Meetings
Subcontractors and tiered subcontractors are <u>required</u> to hold Weekly Safety "Tool Box" Meetings with their field crews. Submit copies of meetings including Safety subjects discussed and attendance, to the

Webcor/Obayashi Joint Venture Site Safety Manager. Webcor/Obayashi Joint Venture will provide assistance and information to subcontractors and their sub-subcontractors as requested.

In addition, subcontractors and tiered subcontractors are to attend monthly or whenever determined by Webcor/Obayashi Joint Venture all hands safety meeting.

Personal Protective Equipment

Hardhats

All persons employed on this project are required to wear ANSI Z89.1-approved hardhats as a condition of employment. All visitors on the jobsite will be required to wear hardhats while on the project site. Any person refusing to wear a hardhat will be immediately dismissed from the project site. Metal hardhats and "Cowboy" hardhats are not allowed to be worn. 100% hardhats are required at all times while on the project.

Eye Protection

The wearing of eye protection will be strictly enforced at all times. 100% safety glasses are required at all times while on the project.

Hand Protection

Hand protection must be worn 100% of the time on the project Gloves must be worn in any situation where hand/finger exposure to hazards exist, unless the manufacture of the equipment being used states gloves should not be worn.

Foot Protection and Clothing

All personnel shall wear safety vests, work boots or acceptable work shoes while employed on this project and keep their footwear in good condition at all times. Long pants and shirts with "T-shirt-length sleeves shall be worn at all times. No sneakers, tennis shoes, soft-suede/canvas hiking boots, tank tops, etc., will be allowed. Foot covers must be used with jumping jack compactors and jackhammers.

Hearing Protection

Each subcontractor shall provide and enforce the use of hearing protection for all workers exposed to noise levels as required by law.

Contractor Parking

There is no subcontractor onsite parking on the project. Subcontractors and sub-subcontractors in violation of this request will be towed at their expense without further notice. Because of the restricted nature of the project, this rule will be strictly enforced.

Job Vehicular Traffic and Material Deliveries

Only company-owned vehicles with signage are continuously required for the pursuit of subcontractor's and sub-subcontractor's work, and trucks delivering materials will be allowed access to the project site.

All construction vehicle traffic access will be coordinated by Webcor/Obayashi Joint Venture.

Subcontractors are reminded that continuous 2-way vehicular traffic must be maintained at all times for safe public accessibility unless posted otherwise. Two-way traffic control is to be provided by subcontractors prior to delivery vehicles entering the property.

Subcontractors are to notify Webcor/Obayashi Joint Venture 48 hours in advance for approval of material deliveries. Delivery vehicles will unload and depart the project site as soon as possible.

Material storage and layout must be approved by Webcor/Obayashi Joint Venture prior to delivery.

Temporary Offices
Temporary offices will be constructed of fire-resistant materials only. Temporary office locations must be approved by Webcor/Obayashi Joint Venture prior to installation.

Fire Protection
In case of a fire or explosion, notify Webcor/Obayashi Joint Venture immediately so that necessary emergency fire-fighting equipment can be routed to the jobsite. Emergency phone numbers will be posted in such a manner so as to be clearly visible. Each trade is responsible for providing fire extinguishers and a fire-watch program for their work as required in renovation and new construction areas.
Reference Webcor/Obayashi Joint Venture's Fire Prevention Program.

Cleanup and Housekeeping
Subcontractors and sub-subcontractors shall leave the site clean and free of debris and hazardous materials by the end of each working day to the satisfaction of Webcor/Obayashi Joint Venture. Each subcontractor is responsible for removal of debris created by their work. Rubbish containers will be placed at a central location for the removal of trash and debris. Accumulation of trash and debris will not be tolerated. Webcor/Obayashi Joint Venture will perform necessary cleanup of same, at subcontractors' expense, upon failure to comply with cleanup notice request.

Drinking Water
Subcontractors shall provide potable drinking water, cups, and trash receptacles for their employees, and all trash shall be removed from the site on a daily basis.

Security Services
Subcontractors and sub-subcontractors shall be responsible for the security of toolboxes, onsite storage materials, etc.

Noise Control

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project noise control plan and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Section 01 35 65 (1.2E) (1.8B), (1.8C) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

Trade Subcontractors shall conduct noise inspections and noise testing of equipment to ensure that all equipment on the Site is in good condition and effectively muffled per manufacturer's recommendation. Noise control shall be maintained by the subcontractors in all areas of construction, guarding against undue noise. Playing of radios, including headsets, is prohibited.

All motor-drive equipment shall have a proper exhaust system, which shall meet Cal/OSHA Standards on noise levels. Subcontractors are to provide proper hearing protection to employees using chipping guns, jackhammers, rock drills, or similar devices.

Combustible Material (Gas, Oil, Oxygen)
Separate storage areas for acetylene, oxygen, and gasoline will be established by Webcor/Obayashi Joint Venture. The contractor shall post proper warning signs. All gasoline will be in containers that will meet NFPA and Cal/OSHA requirements, and will be stored in designated areas only. All acetylene and oxygen bottles will be attached to a cart when in use, or tied off in a vertical position. All carts must be equipped with a fire extinguisher.

All stored oxygen and acetylene must be separated from each other, by a minimum of 20 feet or a fire-rated barrier, with bottle caps secured in place as required by Cal/OSHA.

Ladders
Fall prevention shall be considered by the competent person if employees work from a ladder 6' or more above a lower level. Metal ladders shall not be used on Webcor/Obayashi Joint Venture projects. When ascending or descending a ladder, employees shall maintain a three-point contact and not carry anything that could cause them to fall. Pull ropes should be placed at all access ladders to lift tools or equipment from level to level. As a minimum, only type 1 or 1-A Heavy/Extra Heavy duty ladders, which carry a minimum of 275 lbs. to 300 lbs., will be allowed on Webcor/Obayashi Joint Venture projects.

Scaffolds
All scaffolds will be constructed and maintained so as to meet all Safety requirements of Cal/OSHA and Webcor/Obayashi Joint Venture. Failure to maintain scaffolds in good condition will result in removal by Webcor/Obayashi Joint Venture. All scaffolds must have top rails, mid rails, and toe boards at all platform levels. All scaffolds are to be built under the supervision of a competent person. The person's name and their qualifications shall be submitted in writing to Webcor/Obayashi Joint Venture prior to the start of work. Daily pre-shift inspection checklists shall be performed by a competent person, maintained by the subcontractor and submitted to Webcor/Obayashi Joint Venture upon request.

100% fall protection is required at all heights above 6'. A competent person shall determine if it is feasible to use fall protection devices while erecting/dismantling a scaffold. Rolling scaffold wheels shall be locked when in use. A horizontal, diagonal brace shall be in place to prevent the scaffold from "wracking". Cross bracing shall not be used as a top or mid rail.

Fall Protection
Webcor/Obayashi Joint Venture maintains a zero tolerance policy for fall protection infractions. Anyone found violating this policy may be removed from the site immediately.

Subcontractor employees are required to provide and use 100% fall protection systems whenever exposed to a fall 6' or greater, including any leading edge work. This can be accomplished through the use of a safety net system, personal fall arrest system or a guardrail system. Webcor/Obayashi Joint Venture does not allow the use of a Safety Monitor System.

Each subcontractor is responsible for providing perimeter tie-off protection for its employees. The building perimeter cable is placed as a guardrail protection, and is not provided for tie-off protection.

Electrical
Ground Fault Circuit Interrupter (GFCI) protection is required for all electrical cords and tools. Each subcontractor shall provide GFCI-protected power strips for use in the building when permanent power has been energized and permanent outlets are placed in service. Each contractor will be responsible for providing and maintaining temporary GFCI's for his or her employees if a GFCI receptacle is not available.

Lockout/Tag out Procedures
Subcontractors shall submit their written LOTO program and documented employee training prior to beginning work on site. The program must include scope of training, pre-planning and specific LOTO procedures. All individuals who are working in or around the hazardous energy shall place their own lock and tag on the disconnect of the energy source. At no time will someone be allowed to remove another employee's lock unless it has been cleared through Webcor/Obayashi Joint Venture competent supervision.

Floor Openings/Hole Cover Procedures
Subcontractor competent person is responsible for identifying any floor opening/hole requiring to be protected. All floor openings/holes shall be covered/protected using appropriate materials. The covers must be able to withstand 2x the load and be secured to the floor and will be inspected daily by the subcontractor competent person. All floor/hole covers shall be clearly marked "Hole Do Not Remove" in a high visible color. All hole covers must be in compliance with OSHA's 29 CFR 1910.23 (a) – 1910.23 (e) 11.

The building perimeter, shafts, and floor openings shall be protected with guard rails and toe boards. Personnel working at a stationary position within 6'-0" of the building perimeter or the edge of a shaft or a floor opening will wear a full body harness and be tied off with an appropriate lifeline. Subcontractors and tiered sub-subcontractors shall not remove any guard rail or fall protection device without the express consent of, Webcor/Obayashi Joint Venture any employee noticed removing such protection without authorization will be removed from the project without recourse. Any area where guardrails and toe boards have been removed shall not be left unattended during a shift. In no case will any guardrail or toe board be left down at the end of a shift.

In locations where temporary protection conflicts with scheduled construction, the subcontractor or the sub-subcontractor shall notify Webcor/Obayashi Joint Venture in advance of the work of necessary modifications. The subcontractor or the sub-subcontractor shall remove the temporary protection and provide other appropriate temporary measures for the performance of their work.

Safe Lifting
All personnel are to be instructed in the proper methods of lifting heavy objects. These instructions will be discussed at Safety and "Tool Box" Meetings.

Powder Actuated Tools
Only low-velocity-type tools will be allowed on this project. Special permission from Webcor/Obayashi Joint Venture must be obtained before high-velocity types can be used, and then only if the job requires it. All personnel working with powder-actuated tools shall be property instructed and licensed for operation of the tool and shall be in possession of current certification while using powder-actuated tools. Warning signs shall be posted in the work area where powder-actuated tools are in use.

Dismissal From Project

THE FOLLOWING IS PROHIBITED AND THE INDIVIDUALCAN BE SUJECT TO DISMISSAL FROM THIS PROJECT SITE FOR VIOLATION:

- Fighting and horseplay.
- Alcohol consumption or controlled-substance use on the site.
- Crowding or pushing while accessing work levels on ladders, scaffolds, etc.
- Throwing trash or any objects from the building.
- Using fire equipment (extinguishers, etc.) for other than its intended use.
- Destroying property or the work of other trades.
- Stealing.
- Gambling on the project site.
- Unsafe work habits.
- Persons using prescribed medication must notify his/her employer of such use prior to going to work or taking the medication.
- Working while your ability or alertness is so impaired by illness or fatigue or other causes that it might unnecessarily expose you or others to injury.
- Noncompliance of any Safety rules and regulations.
- Lewd or abusive language towards jobsite personnel, Owner's personnel, or any member of the public.

First Aid

All subcontractors and tiered subcontractors are required to have a CPR/First Aid certified persons and First Aid Kit available at the jobsite with contents meeting the requirements of Cal/OSHA. Each subcontractor shall make arrangements for medical aid at a facility as provided through their insurance carrier.

Use of Tools and Equipment

Each subcontractor is responsible to provide proper instructions for their employee's use of all tools and equipment.

When the use portable electric or pneumatic tools is needed, proper safety guards must be in place and operational. Power tool cord "whips" must meet NEC requirements. Air compressor hoses must be "clipped" together. Tools are not to be raised or lowered by their cords or air hoses.

Hazardous Material Handling

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project Hazardous Material Handling plan and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Sections 01 13 50 (1.4B and C) and (1.8D) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

Currently Webcor/Obayashi Joint Venture does not anticipate based on the scope of work to have any excavations that will require special protection. In the event the situation does arise, The Trade Subcontractor will submit all appropriate documentation (protections, support systems, inspection process, access) preceding the activity.

Hazardous Communications Program
All subcontractors are to comply with Webcor/Obayashi Joint Venture's Hazard Communication Standard Policy. If you are allergic to cement or are susceptible to lime burns or skin disorders, notify your supervisor in order to make sure you are not assigned work with those substances.
If you are allergic to or cannot use any other chemicals, notify your supervisor.

Confined Space
No person shall enter a confined space such as manholes, underground vaults, tanks, pipes, tunnels, or other similar places until it is determined that it is Safe to enter the space by an approved method. Subcontractor competent person is responsible for identifying any potential confined space and shall initially determine if a permit required confined space exists. A pre-planning meeting must be held if a confined space exits and proper procedures followed to ensure worker safety.

Traffic Work Zone Signaling Requirements
Due to general liability exposure created by improper traffic control, all flagging, training, lane closures, etc. shall conform to the most current edition of the Manual on Uniform Traffic Control Devices (MUTCD). Local permitting issues shall be addressed by Webcor/Obayashi Joint Venture prior to the start of work. All workers in the traffic control area must be trained according to local, state and federal requirements and wear the appropriate reflective vest or high visibility clothing. Stop/Slow paddles, not flags, must be used to control traffic flow.

Equipment
Machinery and equipment shall be inspected and documented daily in addition operated by authorized, trained personnel only. All operated equipment shall have backup alarms in working order. Operators shall inspect each work area to make sure that it is Safe to operate the equipment in that area. Equipment shall not be serviced or repaired while it is in motion or running, unless there are appropriate Safeguards in place to prevent injury. Fuel-operated equipment, such as generators, air compressors, welders, etc., shall have a dedicated fire extinguisher near the equipment at all times when it is in operation. Fire extinguisher shall be rated 10 ABC, minimum.

Excavation and Trenching

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor /Obayashi's overall project Hazardous Materials Handling plan and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Sections 00 07 00 (I), 00 08 14(1.2B), 00 08 14(1.4), 00 08 14(1.5B) and 01 35 65 (1.7C) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

Pursuant to section 6705 of the California Labor Code, excavation for trenches 5 feet or more in depth shall not begin until Webcor/Obayashi Joint Venture has received acceptance from the TJPA of Webcor Obayashi's detailed plan for worker protection from the hazards of caving ground during excavation of such trenches. Webcor Obayashi's shoring plan shall be submitted in accordance with the requirements of the Specifications and shall show the details and supporting calculations of the design of shoring, bracing, sloping, or other provisions to be made for worker protection during such excavation.

No plan shall allow the use of shoring, sloping or other protective system less effective than that required by the Construction Safety Orders of the Division of Occupational Safety and Health.
If Webcor/Obayashi Joint Venture shoring plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and sealed by an engineer retained by Webcor/Obayashi Joint Venture who is registered as a civil or structural engineer in the State of California. The TJPA's acceptance of Webcor/Obayashi Joint Venture shoring plan shall not be construed to relieve Webcor/Obayashi Joint Venture of its sole responsibility for damage or injuries related to the excavation resulting from unsafe shoring.

Currently Webcor/Obayashi Joint Venture does not anticipate based on the scope of work to have any excavations that will require special protection. In the event the situation does arise, The Trade Subcontractor will submit all appropriate documentation (protections, support systems, inspection process, access) preceding the activity.

The Trade Subcontractor will comply with all requirements of federal OSHA, Cal/OSHA, the California Labor Code, Trade Subcontractor safety requirements, and these Contract Documents. The more stringent requirements shall apply.

Should Trade Subcontractors be notified by the TJPA of any unsafe or unhealthy condition associated with the performance of the Work and be required to take remedial action to correct such conditions, Trade Subcontractors shall take action immediately, if so directed, or within 48 hours after receipt of a notice of violation.

The health and safety plan shall be certified by Trade Subcontractor's competent hazardous materials supervisor and submitted to the TJPA for review and comment prior to implementation.

Prior to commence of earthwork activities the Trade Subcontractor shall review the, SMP. Submit for approval a comprehensive and site specific HASP prepared by a certified industrial hygienist.

Daily, pre-shift inspection of excavations, the adjacent areas and protective systems shall be made by the competent person for evidence of potential cave-ins, hazardous atmospheres or protective system failure. Daily, pre-shift inspection checklists shall be maintained by the subcontractor and submitted to Webcor/Obayashi Joint Venture weekly.

No person shall enter an excavation where protection from ground movement is required until such protection is in place. 100% fall prevention is required when working next to excavations greater than 5' in depth. Ladders or other means of approved access shall be used for all excavations. Stepladders shall not be used in a "leaning" position to enter or exit excavations.

Respiratory Protection

- Conditions may exist which require the utilization of respiratory equipment to protect employees against exposure to the inhalation of toxic or harmful gasses, vapors, mists, fumes and dust. Each Contractor must implement and enforce a respiratory program in accordance with CAL/OSHA standards to protect employees from these types of exposures.
- Only respirators that are applicable and suitable for the purpose intended will be used. They will be selected on the basis of the hazards to which the employee is exposed.

- Employees required to use respiratory protective equipment approved for use in atmosphere immediately dangerous to life shall be thoroughly trained in the use and limitations of such equipment.
- Respiratory protective equipment will be inspected regularly and maintained in good condition. Chemical cartridges will be replaced per manufacturer's recommended or calculated filter change-out schedule so as to provide complete protection. Dust respirators are to be replaced in accordance with manufacturer specifications.
- Respiratory protective equipment, which has been previously used, shall be cleaned and disinfected before it is issued to another employee.
- Workers required to wear respiratory protection shall have been medically evaluated and approved to wear such devices. A copy of each of its worker's medical approval will be kept by each contractor on site.
- Employee Training (Respirators, Breathing Apparatus, etc.)
- All employees required to use personal protective equipment shall be given individual instruction by contractor regarding PPE prior to its use. This training shall be documented and a record kept on site.
- All employees must be clean-shaven to ensure the proper fitting of the respirator. Each contractor must perform fit testing on each employee to ensure the proper fit of the respirator. The results of the fit test shall be documented and a record kept on site.
- Each contractor must have a written respirator program and this program is to be submitted to the construction manager, General Contractor and Safety Coordinator prior to working at this site.

Crane Lift Plan Process Requirements.

1. The Crane Use Planning Process has two parts:
   a. Crane Lift Plan
   b. Crane Daily Safety Review (Note: Required EVERY DAY a crane is used)
2. A Complete and Competent Crane Lift Plan (reviewed by Webcor/Obayashi Joint Venture) is required prior to any crane lift while working on a Webcor/Obayashi Joint Venture project.
3. Complete and Competent Crane Lift Plans must be submitted to Webcor/Obayashi Joint Venture at least 48 hours (2 business days) prior to mobilization. Neither TJPA nor Webcor/Obayashi Joint Venture shall be held responsible for any delay allegations as a result of the Trade Subcontractor failing to submit Crane Lift Plans on a timely basis.
4. The Trade Subcontractor is responsible to visit the site prior to the lift date to review documentary information pertaining to the site, which is maintained by Webcor/Obayashi Joint Venture.
5. The Trade Subcontractor is responsible to obtain all information that is necessary to develop a power line safety plan.
6. The Complete and Competent Crane Lift Plan may be valid for more than one day, as long as the configuration, location, maximum expected load, and maximum expected radius does *not* change. Use multiple lift plans for multiple locations.
7. Complete and Competent Crane Lift Plans must be based on "worst case" combination of load weight with chart deductions and lift radius for a specific crane configuration in a specific location.
8. The Crane Lift Plan must be *COMPLETE & COMPETANT* (and reviewed by Webcor/Obayashi Joint Venture) along with attachments to include, but is not limited to:
   a. Plot plan with crane location (identify swing path, delivery truck locations, location of any overhead power lines, etc.).
   b. Elevation plan.
   c. Crane load charts and calculations including any notes.

d. Dimension illustration and specifications for crane and range chart.
e. Operator's: License, training information, USDOT medical certificate, OSHA trainings cards as required by the project.
f. Rigging plan, lists, and diagram.
g. Statement of qualification and competent person designation form for: Crane operator, A/D supervisor, rigger and signal person.
h. JHA for: Assembly / disassembly of crane, power line encroachment, truck load / unload, etc.
i. Logistics and assembly / dismantle plan.
j. 3rd party annual inspection, certification, and report (Inspector shall be registered with the CCAA).
k. Actual weights of materials.
l. Lighting and wind restrictions (from operators manual).

9. Work that is not anticipated in the Complete and Competent Crane Lift Plan, but may arise due to site conditions (moving equipment, loading materials onto floors, etc.) must be reviewed with Webcor/Obayashi Joint Venture prior to hoisting. Changes affecting crane configuration may require the Complete and Competent Crane Lift Plan to be amended.
10. Lifts exceeding 75% of the cranes stability / structural capacity chart, requiring movement of a crane carriage with the load, personnel platforms, critical loads (long lead time, cost), tripping loads, work over occupied facilities, or work involving encroachment on public rights of way, will also require the preparation, submittal and review of a specific JHA (Note: These lifts are discouraged. These lifts must be reviewed in advance. The Complete and Competent Crane Lift Plan(s) may have to be prepared and stamped by a licensed professional engineer (PE) to be provided by the Trade Subcontractor.
11. The Trade Subcontractor / Crane Company / Rigging Company is responsible for the accuracy of all calculations and inspections. This planning process has been established to help ensure proper coordination between subcontractors and Webcor/Obayashi Joint Venture. No warranty or certification of the suitability of this plan is accepted by Webcor/Obayashi Joint Venture. It is the responsibility of the Trade Subcontractor and the Crane Operator to ensure that they and their employees are qualified, competent, properly equipped and properly trained to perform the activities outlined in this plan.

Cranes, Hoisting and Rigging

Introduction

The safe operation and proper maintenance of cranes and rigging on the site shall be the overall responsibility of the contractor. Each contractor shall also be held accountable for compliance with CAL/OSHA crane regulations for all cranes or derricks on the site, whether contractor owned, leased or rented. All rigging inspection logs subcontractor and submitted to Webcor/Obayashi Joint Venture mothly.

Riggers shall meet the qualified rigger requirements of subpart CC – Cranes and Derricks in Construction, as specified in 29 CFR 1926.1401, 1926.1404, and 1926.1425. These provisions are effective November 8, 2010. The more stringent rule shall apply.

Special Provisions

- Prior to its initial use on the site or after repairs have been made each crane or derrick shall be thoroughly inspected by a certified independent third party. Any deficiencies found shall be corrected before the equipment is placed into service.
- A copy of the annual certification inspection performed by a certified independent third party shall be submitted to the Webcor/Obayashi Joint Venture Safety Manager prior to the crane being operated on site.
- Each contractor shall designate a competent person who shall inspect all cranes and derricks daily as part of the contractor's job site inspection program. Such inspections shall be documented. Defective equipment shall be removed from service and repaired and service/repair shall be documented.
- The contractor or vendor supplying the equipment shall inspect each crane at least monthly and provide a written report as to the results of the inspection. Defective equipment shall be removed from service.
- Loads shall not be passed or suspended over persons.
- Tag lines or guide ropes shall be used to control all loads.
- Barricades for employee safety shall be maintained around the swing radius of the crane cab.

Crane Operator Qualifications

- Each contractor shall as specified in 29 CFR 1926.1427. State or local government licensing is effective November 8, 2010 select only those personnel meeting the following qualifications to operate cranes and other hoisting equipment:
- Designated operators who have been licensed by an approved agency or union and meet the requirements of Chapter 5, ANSI B30.
- Crane operators will meet the minimum requirements by the D.O.T. Physical Examination, as provided in D.O.T. 391, Physical Examination for truck drivers. No crane operator will be allowed to operate a crane until they have passed the Physical Exam conducted by a licensed Physician approved by the D.O.T.
- Coordinators certified for crane inspection;
- Test and maintenance personnel when necessary.
- Only designated operators who have been licensed by an approved agency or union and meet the requirements shall be in, or on, the crane during operations.

Operator's Responsibilities

- Each crane operator will be specifically assigned the responsibility for safe operations and shall be given written instructions as applicable. These responsibilities shall include:
- Verification of a current "annual inspection" certification for the crane.
- Verification that manufacturer's rated load capacities, recommended operating speeds, and special warnings or instructions are posted on the crane and are visible from the operator's station.
- Daily inspection of:
    - Condition of brakes under no-load conditions
    - Functioning of various safety devices and limiting devices fitted to the hoisting apparatus
    - The electric power installation
    - The overload controls
    - Condition of structural members for cracks, bends, misalignment, etc.
    - Fire extinguisher in cab
- Assuring that routine maintenance is performed, as well as necessary repairs.

- Responsibility for assuring that signaling and communications are adequate. This includes making sure that personnel at materials loading and receiving areas use correct hand signals. Where conditions require, radio communications will be used with a clear channel for crane operations.
- Refusing to lift any loads that are not safely rigged. This refusal cannot be overridden by job supervisory personnel.
- Making sure that adequate clearances exist between operating areas and nearby structures, especially power lines.
- Each crane operator shall ensure that good housekeeping is maintained in his or her equipment.

Operating Procedures

Each contractor shall ensure that its crane operators:

- Not engage in any practice, which may divert his attention while engaged in crane operations.
- Not operate the crane if physically or mentally unfit, or if taking prescription drugs, which may affect judgment.
- Not respond to any signal, which is unclear or is given by anyone other than appointed signalmen. Exception: The operator shall respond to a stop signal given by anyone.
- Have final responsibility and control over the crane operations. When there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle the loads until safety has been assured. Any manager, supervisor or person attempting to bypass the crane operator's authority on this issue will be immediately removed from the project.
- Shall be intimately familiar and have thorough knowledge of the crane and its care, the operators' manual, and load charts. He shall be responsible for notifying its supervisor of any needed adjustments or repairs, and for logging his findings in the crane log.
- Shall, upon request, demonstrate his ability to determine total load weight and its relationship to the crane load charts.
- Immediately shut down the crane if any part of the crane, rigging or load strikes any object. The crane will be re-inspected by a qualified person, and if damage is detected, all repairs shall be completed under the guidelines of the manufacturer. The crane must then be re-inspected by a third party agency prior to beginning operations again.
- Never leave the controls while there is a load on the hook.
- Stop the crane operation if there are any problems and notify the Safety Coordinator.

Contractor Responsibilities

Making sure that rigging equipment is in good condition and provided with safety devices as applicable. This includes such things as:

- Safety latches on hoisting hooks.
- Chains, wire rope, slings, etc. are free from defects and conform with standard load ratings for work being done.
- Eye splices conform to safety standards.
- Employee Training
- Each contractor shall ensure that all of its employees involved in crane activities receive comprehensive training as to their responsibilities. This training shall include hand signals and those authorized to give signals. Said training shall be documented.

Hoisting and Rigging

- Documented inspections of hoisting and rigging equipment shall be conducted by a competent person before their use to ensure that it is in safe operating condition and that lifts will be conducted in a safe manner.
- Damaged or defective equipment shall be removed from service and removed from the project site.
- Accessible areas within the swing radius of the rotating superstructure shall be properly barricaded to prevent employees from being struck or crushed by the crane.
- Lifts shall not be conducted over employees, visitors, or areas occupied by the public.
- The crane operator shall be responsible for determining the safe operation of their crane and the safety of each lift.
- Routes of suspended loads shall be preplanned to ensure no workers or the public are directly below suspended loads.
- Tag lines shall be used for controlling all loads.

HAZARD COMMUNICATION STANDARD POLICY

This Webcor/Obayashi Joint Venture project plan will be developed incrementally as trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors plan will become part of Webcor/Obayashi's overall project Hazardous Material Communication plan and will be submitted to the Joint Transit Power Authority as they are received.

This Section will conform to Specification Sections 01 15 45 (1.2A1, 1.2A2),(1.13D),(1.4A), (1.4C) found in The Transbay Transit Center Contract Number 08-04-CMGC-000

Trade Subcontractors shall submit the following in accordance with this Contract specification:
A HASP. Upon approval of the HASP, Trade Subcontractor shall provide 2 copies on compact disc in Portable Document Format (PDF) with properly labeled cases. Materials Safety Data Sheet (MSDS) for all chemicals and other hazardous materials to be used. This submittal is only as warranted. Trade Subcontractor's site-specific HASP. Trade Subcontractors shall submit a site-specific environmental HASP in accordance with these specifications and 29 CFR 1910.120, 8 CCR 5192. The HASP shall remain in effect throughout the life of the Contract, and a copy of the HASP must be on site at all times.

Trade Subcontractors shall submit 5 copies of the HASP at least 10 working days before any demolition or any building materials-disturbing activity, and no later than 30 days after the Notice to precede for each Trade Subcontract package. The TJPA will not review the HASP for its content, nor will the TJPA be liable for Contractor's failure to have an adequate HASP or implement it. Receipt of the HASP by the TJPA neither constitutes the legality of the HASP nor incurs liability with Trade Sub contractor.

- Each subcontractor is to submit a copy of its written Hazard Communication Program to the Webcor/Obayashi Joint Venture jobsite. An initial hazardous material/chemical listing for this specific jobsite must accompany the Program.
- All subcontractors are required to maintain MSDSs on the project.
- A complete file of all MSDSs submitted is to be located at the jobsite office for review by all workers during job hours (Webcor/Obayashi Joint Venture Subcontractors, and Sub-subcontractor/Suppliers).

- Noncompliance with this portion of the Webcor/Obayashi Joint Venture Safety Policy will be written up as a Safety violation and may result in a Safety fine and/or nonpayment to the subcontractor(s).
- Webcor/Obayashi Joint Venture is only required to train its employees to comply and observe the policy. It is the responsibility of each subcontractor and each sub-subcontractor to train his employees in the implementation and use of the Hazard Communication Policy.
- Each subcontractor will discuss each new substance introduced on the jobsite at the weekly Safety meetings with his crews and the Superintendents of other subcontractors at the Project Safety Meeting.
- Each subcontractor must label the contents of all containers including secondary containers. The label must identify:
    - Substance
    - Hazard Warnings
    - Name and address of the manufacturer
- Each subcontractor must:
- Train his personnel regarding Hazardous Communications, and specifically as t the dangers of working with these substances, chemicals, materials. Keep copies of training certificates at jobsite.
- Provide proper personnel protective equipment, as required.
- Train employees in the first-aid and medical emergency procedures associated with each material.
- Keep copies of all MSDSs at the jobsite.

- Bulk fuel storage is not allowed onsite.

EMERGENCY MEDICAL PROCEDURES

The purpose of this program is to establish standard jobsite procedures for reporting accidents, administering first aid, and emergency medical procedures.

Each subcontractor and sub-subcontractor shall maintain a Cal/OSHA-approved First Aid Kit on the Project at all times. Each subcontractor shall designate an employee qualified in first-aid treatment as their Safety Coordinator. It shall be the Safety Coordinator's responsibility to treat minor injuries and complete and submit required accident reports to Webcor/Obayashi Joint Venture.

Minor Injuries
Minor injuries are those which require only immediate first-aid treatment and do not result in lost work time.

In the event of a minor injury, the subcontractor's Safety Coordinator shall provide first aid and/or take the injured employee to the designated medical center or clinic for treatment and checkup if necessary.

Persons who have sustained head injuries, major impacts, or whose injuries are the result of a fall shall be evaluated and stabilized by professional medical personnel and provided transportation to the medical facility by the subcontractor or EMT.

Upon return from treatment, the employee shall return to work ONLY if so released in writing by the attending physician.

All minor accidents shall be a topic of discussion at the subcontractor's next scheduled Safety Meeting, to include cause of accident and preventive measures to be taken to avoid future similar accidents.

Major Injuries
Major injuries or illness are those which require extended medical treatment with hospitalization for more than 24 hours resulting in loss of work time, or result in death, disfigurement, or dismemberment.

In the event of a major injury, the first person to encounter the injuries shall summon others to notify the Webcor/Obayashi Joint Venture Field staff and provide the appropriate first-aid treatment if qualified. Any subcontractor or sub-subcontractor may dial 911 to request medical assistance. Emergency vehicles shall be directed to enter the Project at site entrance that will be determined as conditions change on the logistic map.

Upon entering the project, the emergency vehicle shall be directed to the exact location of the injured.

While awaiting arrival of the Emergency Vehicle(s), the injured shall not be moved unless he/she is in immediate danger of additional injury in his/her current location. Equipment and material involved in or responsible for the accident shall not be disturbed unless it presents an additional danger to the injured person(s).

The closest Emergency Medical Facility is:

St. Francis Health Center
24 Willie Mays Plaza
San Francisco, CA 94107-2134
(415) 972-2249

Immediately after the accident, Webcor/Obayashi Joint Venture will meet with the responsible subcontractor's Superintendent and/or Foremen, review the conditions, and direct the appropriate corrective action. The subcontractor's Safety Coordinator shall complete and submit a copy of all required reports to Webcor/Obayashi Joint Venture.
Within 24 hours of a major injury, Webcor/Obayashi Joint Venture shall conduct a Safety Meeting with attendance required of all jobsite personnel. Topics to include: cause of accident, nature of injury, immediate prognosis for full recovery from injury (if available), and preventive measures to be taken to avoid future similar accidents.

ACCIDENT / INJURY MANAGEMENT

Accident Reporting
All on-site incidents and accidents must be reported to Webcor/Obayashi Joint Venture Project Management immediately. All accidents resulting in industrial injuries or illnesses occurring on the jobsite will be thoroughly investigated. The investigation will be conducted by the controlling employer's Project Management, supervisor and Safety Coordinator, under the direction of Webcor/Obayashi Joint Venture Project Management. This includes accidents, injuries and illnesses of workers whether the injury resulted in medical treatment; no claim was filed, or is a non-industrial injury. Completion of

appropriate forms, as defined in the Incident Reporting Appendix must be completed immediately after occurrence.

Accident Investigation
The initial accident investigation is to be completed within 24 hours, with immediate notification of Webcor/Obayashi Joint Venture safety (refer to Incident Reporting Appendix). Identification and review process of root causes must be completed. Corrective actions, identification of persons responsible for corrective actions, and date of completion must be established. Follow up documentation verifying corrective action completion is required. Lessons learned from root cause analysis reviews will be shared with the project, regionally and globally.

Investigation reports of accidents or injuries requiring medical treatment must include medical treatment forms and completed first report or injury forms.

This project requires that an Incident Investigation form be completed for all on-the-job accidents. The form is contained with the Incident Reporting Appendix. This form must be completed as soon as possible (limit - within 1 working day) after occurrence of any injury that results in medical treatment or property damage. After completion, the form must be returned to Webcor/Obayashi Joint Venture Project Management/Safety for corrective action and processing.

Copies of all accident investigation documentation must be submitted to the Webcor/Obayashi Joint Venture Regional Safety Director. If required by law, injury notification to OSHA must be coordinated through the Webcor/Obayashi Joint Venture Regional Safety Director and the Corporate Safety Director.

Accident Analysis
Webcor/Obayashi Joint Venture provides a safe and healthful work environment for all workers through progressive, proactive injury prevention planning. Job pre-planning and identification of up-coming potentially hazardous activities is supported by regular review of trend analysis.

To identify root causes of accidents and at-risk behavior Webcor/Obayashi Joint Venture and subcontractor management will be required to, within 48 hours of the incident, conduct a “lesson learned” meeting. The meeting will analyze any injury accidents, environmental incident, or impact to existing facilities and operations. Accident trends will be identified and plans developed to prevent additional incidents. A complete Root Cause Analysis will be performed involving at least the Webcor/Obayashi Joint Venture and Subcontractor Project Teams. The mission of these meetings will be to identify problem areas, develop specific action plan(s) to address root causes and at-risk behaviors, and to immediately implement corrective actions. Webcor/Obayashi Joint Venture will periodically review implemented plans for effectiveness. Lessons learned from root cause analysis reviews will be shared with the project, regionally and globally.

RESPONSIBILITIES FOR SAFETY and LOSS CONTROL

Overview
The objective of this project safety overview (PSO) is to establish that safety and health must be addressed throughout the entire project. The prevention of accidents and protection of property are company values and are integral to our success. All safety issues shall receive active support and participation by the entire project team.

The principles of safety and loss control are intended to prevent injuries on the jobsite and to reduce the potential for damage to property and equipment. No phase of construction is of greater importance than incident prevention. Accidents that result in personal injury or damage to property and equipment represent needless waste and loss.

Planning for safety starts with project design and continues through purchasing, fabrication and construction in all phases of the project. Practical steps will be taken to maintain an Injury Free Environment. All subcontractors must accept responsibility for preventing accidents and be responsible for thorough safety and loss control training and instruction for their workers.

The primary objective of the Webcor/Obayashi Joint Venture PSO is to coordinate the elimination or reduction of risk associated with the construction of the project. Associated missions are to promote safe work practices/behaviors, prevent accidents, prevent worker injuries, prevent damage to property, and promote maximum efficiency and effect savings by reducing unplanned business interruptions.

Active participation by the management of Webcor/Obayashi Joint Venture, subcontractors, tiered subcontractors and all workers will make the program effective and successful by coordinating the participants' efforts in performing the following tasks:
Providing a safe environment in which workers can perform high quality work.
Using job hazard analysis pre-task safety planning as a tool to reduce injury to persons and property.
Conduct jobsite safety audits to locate and abate unsafe work practices/behaviors and unsafe conditions.
Protecting the public and property potentially affected by Webcor/Obayashi Joint Venture sites.
Educating and training workers through:

- New hire/site specific safety orientation
- Safety meetings
- Task specific safety training; i.e., hazardous communications (HAZCOM), construction safety practices, excavation and trenching safety, confined space entry, equipment operations, etc.
- Mandatory personal protective equipment (PPE) programs
- Immediate injury reporting and effective record keeping to maintain an up-to-date accident experience and trends analysis
- Use of accident investigation information to abate deficiencies and eliminate any additional losses

Webcor/Obayashi Joint Venture Management Team
Webcor/Obayashi Joint Venture Management Team is responsible for construction management services for the Transbay Transit Center and for:

- Encouraging, reinforcing and modeling Webcor/Obayashi Joint Venture culture, including Injury Free Environment initiatives
- Participating in the development and assessment of EH&S leading indicators
- Reviewing and approving project corrective action/recovery plans.
- Instituting accountability when action plans and culture are not maintained
- Has the authority to stop any operations that pose a potential threat

Webcor/Obayashi Joint Venture Project Manager (Steve Humphreys)
The Webcor/Obayashi Joint Venture Project Manager is responsible for construction management services for the Transbay Transit Center and for:

- Determining if contract documents and specifications support the project's safety missions and objectives
- Monitoring subcontractor selection process and adherence to established guidelines
- Periodically auditing subcontractor's safety plans for compliance with the Webcor/Obayashi Joint Venture 's EHSP
- Participating in pre-task planning and subcontractor pre-construction safety meetings
- Being aware of loss control and public protection requirements of the project
- Participating in fact finding, root cause analysis, and the implementation of corrective actions associated with injury/incident investigations
- Documenting weekly jobsite safety audits
- Facilitating monthly craft feedback luncheon
- Supporting Webcor/Obayashi Joint Venture EHS personnel and cooperating with all designated personnel in obtaining corrective actions necessary to comply with the Webcor/Obayashi Joint Venture EHSP
- Has the authority to stop any operations that pose a potential threat
- Promoting and supporting our Injury Free culture

Webcor/Obayashi Joint Venture Project Superintendents (Ryan Burke)
It is the responsibility of Webcor/Obayashi Joint Venture Superintendents to oversee safety on jobsite. Their EHS responsibilities include:

- Overseeing the planning and execution of all work in compliance with the Webcor/Obayashi Joint Venture EHSP and contract specifications
- Being aware of loss control and public protection requirements identified in the safety specifications of the contract documents
- Completing daily jobsite safety audits and reviewing completed jobsite safety audits to ensure identified hazards are addressed in a timely manner
- Participating in pre-task planning, and subcontractor pre-bid, pre-construction and/or kick-off meetings
- Monitoring and participating in job hazard analysis and pre-task planning
- Requiring supervisors and workers to use personal protective equipment in accordance with the Webcor/Obayashi Joint Venture EHSP and local, state and federal safety regulations
- Participating in fact finding, root cause analysis and the implementation of corrective actions associated with injury/incident investigations
- Ensuring Injury Accident Investigation Packets are accurately completed and forwarded to designated individuals
- Participating in and encouraging weekly tool box/tailgate safety meetings, and evaluating their effectiveness

- Taking appropriate action to abate identified unsafe conditions and practices and document corrective actions.
- Supporting Webcor/Obayashi Joint Venture EHS, and cooperating with all designated project safety personnel in obtaining corrective actions necessary to comply with the Webcor/Obayashi Joint Venture EHSP
- Has the authority to stop any operations that pose a potential threat
- Promoting and supporting Injury Free culture

Webcor/Obayashi Joint Venture Project EHS Manager (Keith Buchignani)

The Webcor/Obayashi Joint Venture Project EHS Manager has authority for safety and health on the project. The Webcor/Obayashi Joint Venture EHS Professional is considered to be the program administrator and has the authority delegated by Webcor/Obayashi Joint Venture Corporate EHS to implement and promote safety. Duties of Webcor/Obayashi Joint Venture Project EHS Manager include:

- Helping to familiarize Webcor/Obayashi Joint Venture and subcontractor project managers, superintendents and supervisors with the Webcor/Obayashi Joint Venture EHSP. These individuals must be familiar with safety and health hazards to which all workers may be exposed, as well as applicable laws, regulations and safety rules and policies.
- Supporting project management in achieving an injury, incident and impact free environment.
- Help assure that all workers are trained in accordance with applicable requirements
- Helping to ensure that observation, inspection, recognition, evaluation and abatement of hazards are conducted on a continuing basis
- Continually developing new methods for abating hazards
- Helping to ensure that hazards are abated in a timely and effective manner
- Reporting all injuries immediately to Webcor/Obayashi Joint Venture Project Management. Webcor/Obayashi Joint Venture EHS also has the responsibility for overseeing development, implementation and maintenance of the project’s safety program by:
- Requiring subcontractors to incorporate the requirements of the Webcor/Obayashi Joint Venture’s EHS Plan into their safety programs and safety orientation if theirs are less protective than those of. Webcor/Obayashi Joint Venture.
- Expediting corrective action(s) to abate any observed or potential safety exposure(s) to workers.
- Requiring Webcor/Obayashi Joint Venture Project Management and Safety Coordinators to continuously monitor Webcor/Obayashi Joint Venture and the subcontractor's safety performance and expedite abatement action(s).
- Overseeing the implementation of emergency response procedures, and helping to assure that Webcor/Obayashi Joint Venture and subcontractor's personnel are trained to handle onsite emergencies.
- Setting project missions and milestones and reporting indicators for all project personnel.

Webcor/Obayashi Joint Venture EHS is further responsible for monitoring the subcontractor's compliance with the Webcor/Obayashi Joint Venture EHSP. Webcor/Obayashi Joint Venture EHS must help ensure that the guidelines, rules and procedures in this document are followed for site work, being familiar with local emergency services and conducting or taking the necessary steps to help ensure that tool box/tailgate safety meetings are conducted before work startup. Additional meetings may be required for specific job tasks or site activities. Webcor/Obayashi Joint Venture EHS also must help monitor the maintenance and inspection of PPE, onsite hazards, the physical condition of site personnel, and perform daily safety audits of work site activities.

Additional duties include maintaining safety files, which will include training and applicable medical certifications, environmental testing and special associated training, tool box/tailgate meeting notes and rosters, safety observation/audit reports, investigation reports including near-misses, injury summaries, required safety permits, security issues, or other safety and health documentation, as applicable. Webcor/Obayashi Joint Venture EHS has the authority to stop any operations that pose a potential threat to site personnel.

Furthermore, Webcor/Obayashi Joint Venture EHS will:
Report unsafe acts and conditions to the worker's supervisor and/or safety coordinator for prompt corrective action and stop all life threatening situations immediately upon knowledge. Webcor/Obayashi Joint Venture requires prompt correction of safety infractions.
Help monitor the subcontractor selection process and adherence to established environmental safety and health guidelines
If the subcontractor does not make immediate corrections after initial notification, Webcor/Obayashi Joint Venture EHS will:

- Notify the subcontractor's Project Management in writing to make prompt corrective action to help eliminate construction safety concerns.
- Forward copies of the written notice to Webcor/Obayashi Joint Venture Project Management
- Develop the direction to help resolve outstanding construction safety issues and maintain documentation of corrective actions

Help ensure that the proper steps are taken in the case of emergencies when a major event resulting in a fatality, multiple injuries, or property loss occurs. Webcor/Obayashi Joint Venture EHS is responsible for requiring that we preserve the accident scene in an "as is" condition, including any construction equipment involved, to allow for a proper investigation. Webcor/Obayashi Joint Venture EHS must order, if necessary, the area or piece of equipment to be stabilized to preclude further injuries or loss.
Notify Webcor/Obayashi Joint Venture Project Manager should we be subjected to an OSHA (federal or state) inspection. Should citations, warnings or safety violations be issued, we copies to Webcor/Obayashi Joint Venture Corporate EHS manager within 48 hours.

NOTE: Webcor/Obayashi Joint Venture EHS manager may assign all or some of these tasks to other responsible persons as appropriate.

Webcor/Obayashi Joint Venture Project Engineer (Robert Kjome)

The Webcor/Obayashi Joint Venture Project Engineer assists the Webcor/Obayashi Joint Venture Project Manager with his/her responsibilities for construction management services for the project. This person will:

- Complete weekly jobsite safety audits
- Participate in pre-task planning, and subcontractor pre-bid, pre-construction, and/or kick-off meetings
- Assist with jobsite safety startup, safety orientations, and craft feedback luncheons
- Participate in fact finding, root cause analysis, and implementing corrective actions to prevent further occurrences on all injury/incident investigations
- Attend and/or participate in jobsite safety meetings

Webcor/Obayashi Joint Venture Supervisor/ Foremen (Ryan Burke)

The Webcor/Obayashi Joint Venture Supervisor/Foreman will interface daily with his/her workers. Therefore, the Webcor/Obayashi Joint Venture Supervisor/Foreman will have a major influence on the effectiveness of the safety program and accident experience. Each Supervisor/Foreman's construction safety responsibilities will include:

- Training and instructing workers in safe work practices for all tasks to which they are assigned
- Helping ensure crew participation in pre-task planning
- Helping ensuring availability of and enforce the proper use of jobsite tools and PPE
- Monitoring the work area for unsafe acts and conditions and instituting immediate corrective action
- Setting a good example for workers
- Pre-planning activities to help ensure workers are properly trained in applicable safety requirements
- Conducting daily pre-job meetings to include review of day's activities and associated hazards
- Ensuring all injury reports are properly completed and submitted to Webcor/Obayashi Joint Venture EHS or designee
- Participating in fact finding, root cause analysis, and the implementation of corrective actions associated with injury/incident investigations, and providing information regarding these actions to Webcor/Obayashi Joint Venture Project Management/Regional Leadership
- Reporting and assisting with the resolution of near miss incidents
- Helping provide first aid care for injured workers
- Promoting and supporting Injury Free culture
- Leading tool box/tailgate safety meetings with the crew to:
- Encourage participation
- Discuss observed accident trends and causes
- Plan construction safety into crew's work activities
- Take action to correct safety-related concerns

Webcor/Obayashi Joint Venture Project Safety Coordinator (TBD)

The Webcor/Obayashi Joint Venture Safety Coordinator's primary responsibility is to ensure immediate corrective action of observed unsafe acts and unsafe conditions. This person will:

- Report unsafe acts and conditions to the worker's supervisor and/or safety coordinator for prompt corrective action and stop all life threatening situations immediately upon knowledge
- Orientate all new Webcor/Obayashi Joint Venture workers according to the Project Site-Specific Safety Orientation
- Make twice daily job site safety audits
- Facilitate daily safety coordination meetings with subcontractor safety coordinators (as applicable)
- Provide appropriate materials and conduct weekly tool box/tailgate meetings or safety meetings, as well as:
- Review meeting reports for attendance
- Help implement required training programs for workers
- Report, in writing to the project EHS manager the names of individuals and their supervisors who are continually observed to violate construction safety requirements, with copies to Webcor/Obayashi Joint Venture Project Management. Webcor/Obayashi Joint Venture Project Management may require that we remove these individuals and/or their supervisors from the job site. Also, Webcor/Obayashi Joint Venture Project Management and/or Webcor/Obayashi Joint Venture EHS is/are authorized to order a work stoppage until present unsafe conditions are abated.
- Report all injuries immediately to Webcor/Obayashi Joint Venture EHS Manager.
- Participate in fact finding, root cause analysis, and resolution on all injury/incident investigations
- Participate in completion and forwarding of all Injury Accident Investigation Packets (injury, liability, property damage, and the like) to Webcor/Obayashi Joint Venture Claims Manager.
- Promote and support Injury Free culture.
- Keep on file the following:
- Updated chemical management plan, including chemical inventory lists and Material Safety Data Sheets (MSDSs) for all products used or stored onsite

Subcontractor Responsibilities

The subcontractor has overall responsibility for accident prevention and implementation of this Webcor/Obayashi Joint Venture EHSP for anyone under their control, including their respective employees, vendors and suppliers. This responsibility is shared with the tiered subcontractors. .
Where subcontractor is not using Safety Professional(s)/Safety Coordinator(s) the subcontractor will assign safety responsibilities to a member of subcontractor Project Management. This assignment is subject to approval by Webcor/Obayashi Joint Venture Management and Webcor/Obayashi Joint Venture EHS, or designee.

Subcontractors will submit a copy of their company's safety program prior to beginning work. All subcontractor workers must be orientated to their company's safety program as well as to applicable sections of this Webcor/Obayashi Joint Venture EHSP.
The subcontractor may be responsible for providing their Safety Professional(s)/Safety Coordinator(s) or designee with a reliable communication method or device in order to contact Webcor/Obayashi Joint Venture Project Management and Webcor/Obayashi Joint Venture EHS during emergency response and/or other safety related communications.
Although many existing hazards may be corrected through informal communications between the subcontractor's Safety Professional/Safety coordinator or designee and members of Webcor/Obayashi Joint Venture Project Management, all corrective actions must be documented, with copies forwarded to Webcor/Obayashi Joint Venture Project EHS Manager.

Subcontractor's Project Manager
The subcontractor's Project Manager is responsible for:

- Planning and monitoring all work performed for compliance with the objectives of the Webcor/Obayashi Joint Venture EHSP, subcontractor's safety program, and federal, state and local safety and health regulations
- Authorizing immediate correction of any existing construction safety-related concerns
- Fully supporting the designated Safety Coordinator and cooperating with all designated project safety personnel in obtaining corrective actions necessary to comply with the Webcor/Obayashi Joint Venture EHSP
- Completing weekly safety audits
- Participating in pre-task planning and subcontractor kick-off meetings
- Participating in fact finding, root cause analysis, and resolution on all injury/incident investigations
- When requested, attending special construction safety meetings

Subcontractor Superintendent/Supervision/Foremen
All supervisory personnel shall have as a minimum the OSHA 30 Hour Construction Safety training within the prior four years and possess a current CPR /First Aid and AED certification. In addition supervisory personnel shall have at a minimum 5 years' experience as a superintendent in a similar type of project. Responsibilities of Subcontractor Superintendent/Supervisor/Foremen are the same as Webcor/Obayashi Joint Venture Superintendent/Supervisor/Foremen, plus:

- Attending weekly contractors' safety meetings

Subcontractor's Safety Professional
This person will:

- Report all incidents and injuries immediately to Webcor/Obayashi Joint Venture Project Management and Webcor/Obayashi Joint Venture EHS

- Perform continuous safety audits of all their respective trade contractors and their subcontractors' work areas throughout the entire workday and take immediate action to eliminate all unsafe acts and/or conditions. These observations, along with corrective actions taken will be reported to the appropriate member of Webcor/Obayashi Joint Venture Project Management, the subcontractor's own management, and Webcor/Obayashi Joint Venture EHS, using the SafeSiteOne Safety Inspection Report. These forms will be completed daily and submitted to Webcor/Obayashi Joint Venture Project Management/EHS.
- Serve as technical advisors to their project management team on safety and health planning, training and problem resolution issues.
- Ensure that prior to the commencement of any work activity; every Supervisor/Foreman reviews each task assignment with every affected employee to ensure a comprehensive understanding of the safety requirements and precautions to be followed while performing this work. The Safety Professional(s) and Supervisor/Foremen should further ensure that all of the necessary guards are in place, safety equipment is provided, and other required steps are taken prior to starting the work.
- Each Safety Professional has the right and the authority to direct stoppage of any work of any contractor whenever imminent danger to life and health exists.
- Each Safety Professional has the right and authority to stop any and all hazardous work activities being performed by his/her company or their subcontractors until necessary corrective actions are taken.
- Ensure that appropriate personal protective equipment is provided and its use enforced
- Enforce their company's safety program and disciplinary procedures
- Accompany Webcor/Obayashi Joint Venture's supervisory personnel as directed and perform joint inspections of work areas and activities
- Orient all new subcontractor personnel to the site's safety program prior to work commencement
- Complete and forward all claim forms (injury, liability, property damage, and the like).
- Attend and participate in daily Safety Coordination Meetings
- Participate in accident investigations and recommend proper courses of corrective action. When serious accidents occur, this task will be performed in conjunction with Webcor/Obayashi Joint Venture EHS and Webcor/Obayashi Joint Venture and the subcontractor Project Management or their representatives.
- Provide appropriate materials for those conducting weekly tool box/tailgate meetings or safety meetings, as well as:
    - Review safety meeting reports for attendance
    - Attend and periodically conduct tool box/tailgate meetings to evaluate their effectiveness
    - Implement required safety training programs for subcontractor employees and supervisors

No full time Safety Professional shall be assigned any duties other than assuring the safety and health of the personnel employed by their company or their subcontractors.

Subcontractor's Safety Coordinator

The subcontractor's Safety Coordinator's responsibilities include assuring immediate corrective action to eliminate observed unsafe acts and unsafe conditions. This person will:

- Report all incidents and injuries immediately to Webcor/Obayashi Joint Venture Project Management/EHS.
- Orient all new subcontractor personnel to the site's safety program prior to work commencement
- Make daily job site safety observations/audits (to be documented daily) and provide copies of documentation to Webcor/Obayashi Joint Venture Project Management and Webcor/Obayashi Joint Venture EHS
- Complete and forward all claim forms (injury, liability, property damage, and the like).
- Attend and participate in daily safety coordination meetings
- Participate in accident investigations and recommend proper courses of corrective action. When serious accidents occur, this task will be performed in conjunction with Webcor/Obayashi Joint Venture Project Management/EHS and subcontractor Project Management or their representatives.
- Provide appropriate materials for those conducting weekly tool box/tailgate meetings or safety meetings, as well as:
    - Periodically conduct tool box/tailgate meetings
    - Implement required training programs for workers and supervisors
    - Provide necessary information for the obtaining of motor vehicle records for all crane operators on site

Everyone's Responsibilities

- Report injuries ***immediately*** to supervision
- Work according to good safety practices as posted, instructed and discussed
- Comply with Webcor/Obayashi Joint Venture EHSP and subcontractor's safety program
- Use all required safety devices
- Report any unsafe situation or act to supervisor and/or designated Safety Coordinator/designee immediately (unsafe conditions and acts must be corrected when noticed to effectively prevent accidents)
- Maintain a clean and safe work area
- Come to work alert and free of any impairment that may affect safety
- Follow the site's Safe Work Practices
- Promote and support the Injury Free Environment: Agree to be held accountable for your safety, and the safety of others
- In addition, EVERYONE is held accountable for their designated assignments of responsibilities as denoted in their respective definitions; i.e., Project Manager, Superintendent, etc.

- Refrain from performing any work which may feel unsafe or for which proper equipment and/or training have not been provided

SAFETY DISCIPLINARY POLICY

Under Webcor/Obayashi Joint Venture, all employees are required to follow company safety policies and operating procedures. When needed, employees will be provided with additional training and information, or retraining to maintain their knowledge.

Although Webcor/Obayashi Joint Venture reserves the right to discharge "at will," we believe that employees found performing work in an unsafe manner that would endanger the employee or another employee shall be subject to discipline or termination by management. Webcor/Obayashi Joint Venture strictly maintains a zero tolerance policy towards violations involving, but not restricted to: fall protection, lock-out/tag-out, and confined space.

The Webcor/Obayashi Joint Venture Project Management/Site Safety Manager will determine the course of action best suited to the circumstances. The steps to be taken at a minimum shall include the following:

- *Verbal Warning* – As the first step in correcting unacceptable behavior, the Supervisor shall review the pertinent facts with the employee. The Supervisor will consider the severity of the problem, and the employee's past performance. A verbal warning will be issued to the employee, if necessary; the employee will be placed on probation.

- *Written Warning* – If the unacceptable performance continues, the next step will be a written warning. The written warning will clearly state the safety policy that was violated. Probation will be a part of the written warning. It may also include time off without pay. At the completion of the probationary period, the supervisor will meet with the employee to determine if the employee has achieved the required level of performance.

- *Termination* – The employee may be terminated if he does not improve his performance while on probation, or has violated another company safety policy within twelve months.

LADDER SAFETY RULES

General:

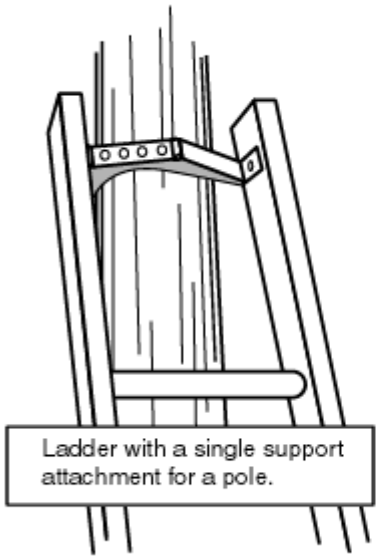
- Inspect before use for physical defects.
- Ladders are not to be painted except for numbering purposes.
- Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
- When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
- Always face the ladder when ascending and descending.
- If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.
- Only one person is allowed on a ladder at a time.
- Do not jump from a ladder when descending.
- All joints between steps, rungs, and side rails must be tight.
- Safety feet must be in good working order and in place.
- Rungs must be free of grease and/or oil.

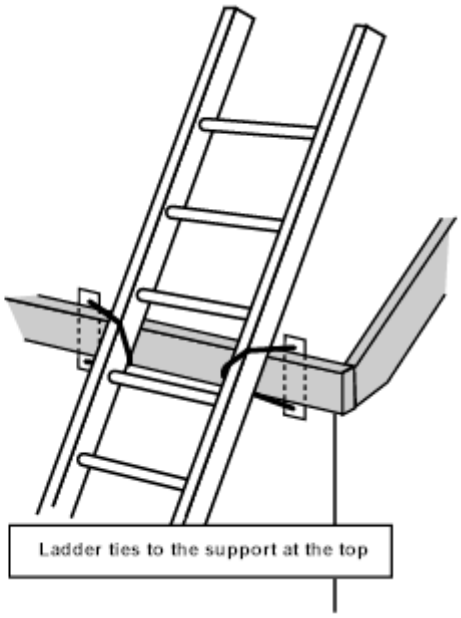
Stepladders

- Do not place tools or materials on the steps or platform of a stepladder
- Do not use the top two steps of a stepladder as a step or stand.
- Always level all four feet and lock spreaders in place.
- Do not use a stepladder as a straight ladder.

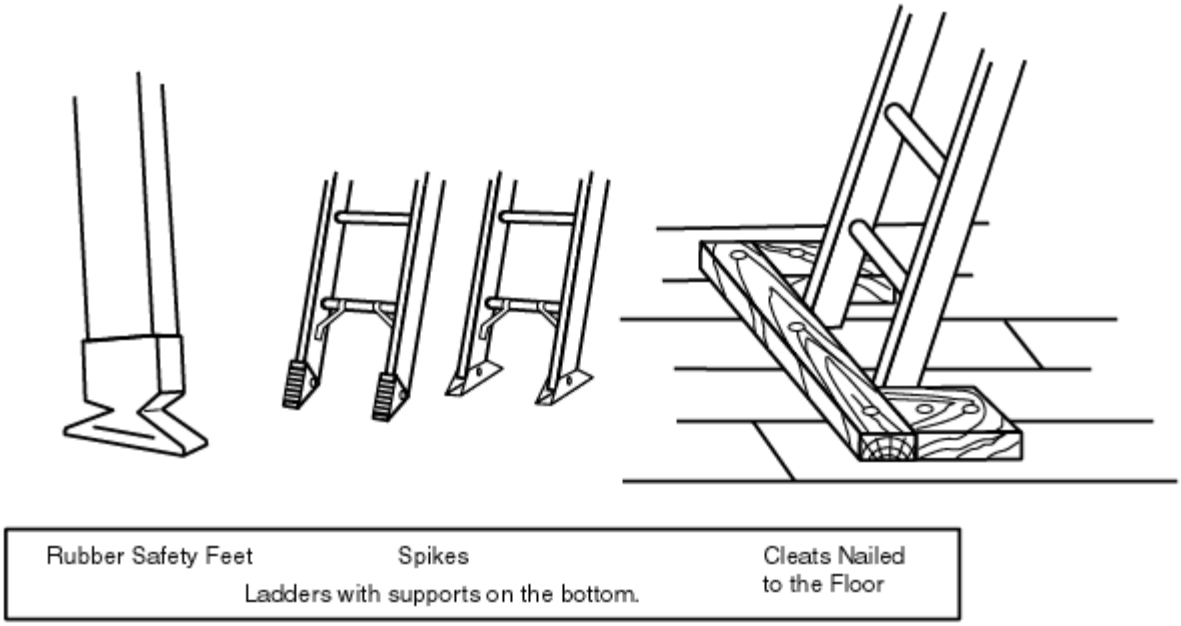
Straight type or extension ladders

- All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
- After raising the extension portion of a two or more stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.
- All extension or straight ladders must be secured or tied off at the top.

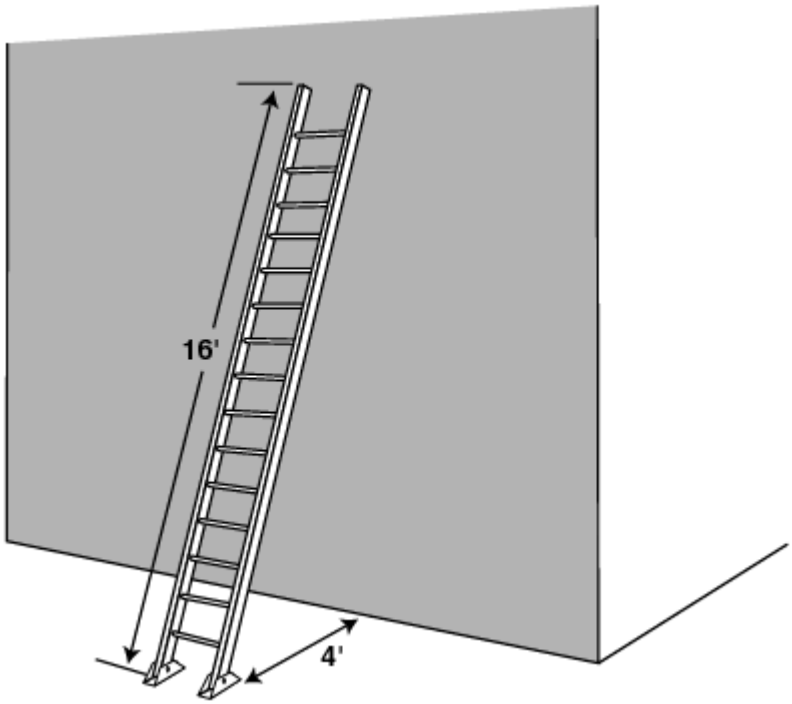




- All ladders must be equipped with safety (non-skid) feet.



- Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.



GENERAL MATERIALS HANDLING SAFETY

General material storage safety:

- Make sure that all materials stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse.
- Post conspicuously the maximum safe load limits of floors within buildings and structures, in pounds per square foot, in all storage areas, except for floor or slab on grade. Do not exceed the maximum safe loads.
- Keep aisles and passageways clear to provide for the free and safe movement of material handling equipment or employees. Keep these areas in good repair.
- Do not store materials on scaffolds or runways in excess of supplies needed for immediate operations.
- Use ramps, blocking, or grading when a difference in road or working levels exists to ensure the safe movement of vehicles between the two levels.
- Do not place materials stored inside buildings under construction within 6 feet of any hoist way or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.
- Segregate non-compatible materials in storage.
- Stack bagged materials by stepping back the layers and cross-keying the bags at least every ten bags high.
- Carefully handle cement and lime delivered in paper bags to prevent the bags from bursting.
- Do not pile cement and lime bags more than ten bags high except when stored in bins or enclosures built for the purpose of storage.
- When bags are removed from the pile, keep the length of the pile at an even height and maintain the necessary step backs every five bags.
- When handling cement and lime bags, wear eye protection preventing any contact with the substance (such as goggles or other sealed eye protection) and wear long sleeve shirts with close fitting collar and cuffs.
- Do not wear clothing that has become hard and stiff with cement.
- Make sure to report any susceptibility of skin to cement and lime burns.
- Make sure that a hand cream or Vaseline and eyewash is provided and kept ready for use to prevent burns.
- Store lime in a dry place to prevent a premature slacking action that may cause fire.
- Do not stack bricks more than 7 feet high. When a loose brick stack reaches a height of 4 feet, taper it back 2 inches for every foot of height above the 4-foot level.
- Never stack bricks, for storage purposes, on scaffolds or runways.
- Always stack blocks; do not throw in a loose pile.
- When stacking masonry blocks higher than 6 feet, taper back the stack one-half block per tier above the 6-foot level.
- When stacking inside a building, distribute the piles to prevent overloading the floor.
- Do not drop or throw blocks from an elevation or deliver blocks through chutes.
- Do not stack lumber more than 20 feet high; if handling lumber manually, do not stack more than 16 feet high.
- Remove all nails from used lumber before stacking.
- Stack lumber on level and solidly supported sills, and such that the stack is stable and self-supporting.

- Stack stored lumber on timber sills to keep it off the ground. Sills must be placed level on solid supports.
- Place cross strips in the stacks when they are stacked more than 4 feet high.
- If not racked, stack and block structural steel, poles, pipe, bar stock, and other cylindrical materials as to prevent spreading or tilting.
- Wear heavy gloves when handling reinforcing steel.
- When bending reinforcing steel on the job, use a strong bench set up on even dry ground or a floor to work on.
- Carefully pile structural steel to prevent danger of members rolling off or the pile toppling over.
- Keep structural steel in low piles, giving consideration to the sequence of use of its members.
- Stack corrugated and flat iron in flat piles, with the piles not more than 4 feet high; place spacing strips between each bundle.
- Frequently inspect stock piles of sand, gravel, and crushed stone to prevent their becoming unsafe by continued adding to or withdrawing from the stock.
- Do not remove frozen material in a manner that would produce an overhang.

General Rigging Equipment Safety:

- Inspect rigging equipment for material handling prior to use on each shift and as necessary during its use to ensure that it is safe. Remove defective rigging equipment from service.
- Never load rigging equipment in excess of its recommended safe working load.
- Remove rigging equipment when not in use from the immediate work area so as not to present a hazard to employees.
- Mark special rigging accessories (i.e., spreader bars, grabs, hooks, clamps, etc.) or other lifting accessories with the rated capacity. Proof tests all components to 125% of the rated load prior to the first use. Maintain permanent records on the job site for all special rigging accessories.

Disposal of waste materials:

- Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, use an enclosed chute of wood or equivalent material.
- When debris is dropped without the use of chutes, make sure that the area onto which the material is dropped is completely enclosed with barricades at least 42 inches high and 20 feet back from the projected edge of the opening above. Post at each level warning signs of the hazard of falling materials. Do not remove debris in this lower area until debris handling ceases above.
- Remove all scrap lumber, waste material, and rubbish from the immediate work area as the work progresses.
- Make sure to comply with local fire regulations if disposing of waste material or debris by burning.
- Keep all solvent waste, oily rags, and flammable liquids in fire-resistant covered containers until removed from the work site.

FIRE PREVENTION PROGRAM

Purpose:

To reduce to a minimum the possibility of fire damage and associated losses incurred during the construction of the Project.

The following program, by no means complete, is the guide to be used on the Project to aid in preventing the spreading of materials loosed by fires and gases associated with combustion, etc.

Fire Protection

- All temporary electric service, equipment, and wiring must be in accordance with Cal OSHA and NFPA 70, National Electric Code (NFPA 241, Section 4-1.1).
- Storage of any material within 10 feet of fire hydrants is strictly prohibited.
- Work areas shall be policed on a regular basis to prevent accumulation of material. All combustible waste material, dust, and debris shall be removed from the building and its immediate vicinity at the end of each work shift, or more frequently as necessary, for Safe operations (NFPA 241, Section 3-4.1).
- No motors or machinery shall be left running during nonworking hours except as specifically directed by Webcor/Obayashi Joint Venture.
- All heating equipment shall have necessary Safety devices and shall be wired, piped, and operated according to all applicable codes, rules and regulations, and manufacturers' instructions.
- All tarps and blankets shall be of fire-retardant material.
- All fuel and solvent containers shall be in approved containers and placed on drip pans. Storage of these materials shall be in accordance with product Material Safety Data Sheets, statutory Hazardous Material requirements, and Fire Department requirements.
- No open or burning fires shall be permitted onsite. Anyone doing so will be subject to immediate dismissal.
- No solid fuel shall be permitted on the site.
- Fire extinguishers shall be placed and maintained on the job in conspicuous and identified locations per Cal/OSHA Title 8 Construction Safety Orders, Article 36, Section 1922, (a), (1). These fire extinguishers shall not be moved or discharged, except for fighting a fire. Anyone discharging an extinguisher as a prank will be subject to immediate dismissal.
- All gas bottles, such as propane, oxygen, and acetylene, shall be stored and secured in a vertical position in areas designated by Webcor/Obayashi Joint Venture. All stored bottles shall be capped. Oxygen and acetylene will not be stored within 20 feet of each other or must be separated by a one-half-hour-rated fire barrier. At no time during construction shall propane or LPG be stored inside of a structure or building.
- All oxygen and acetylene in use shall be in proper carts with required separations and with an attached 10 BC, minimum, fire extinguisher.
- During welding or cutting operations, a fire watch with fire extinguisher will be required and shall be the responsibility of the subcontractor or its sub-subcontractor performing the work. The need of a hot work permit may be needed, depending on location and circumstances for such. Permits will be obtained from the Project Safety Manager.

Fire Fighting

- Appropriate action is the key to the prevention of loss of life and property damage. This action in the first minute is worth gallons of water ten minutes later.
- If a fire occurs, notify the local fire department and Webcor/Obayashi Joint Venture immediately.
- Extinguish fire with a noncombustible, such as sand, or an available fire extinguisher.
- Remove or shut off fuel supply, such as removing debris or stored material, or shutting off fuel supply.

Welding and Cutting Permit Program for "Hot Work"

- The Site Safety Manager will act as the Fire Safety Manager.
- Each subcontractor shall notify Webcor/Obayashi Joint Venture of proposed "Hot Work" through a "Welding/Cutting Permit" application to the Fire Safety Manager.
- The Fire Safety Manager shall review the Permit form with the subcontractor to assure that all areas of concern are accounted for in fire protection.
- The Fire Safety Manager shall keep a log of all Permits.
- Permissible Areas:
  - New construction: When all fire prevention measures are taken, permits shall be authorized for the work.
    - New construction work shall require the presence of a dedicated fire extinguisher (20 lb, ABC), provided by the subcontractor performing the work, and any other preventive measures as may be necessary for protection of life and property, such as fire blankets, water supply, etc.
    - The subcontractor and the Fire Safety Manager shall ensure that the surrounding area(s) are free of combustible material per NFPA 51B.
    - When the work is of the nature that "hot" material may fall to areas below, the subcontractor and the Fire Safety Manager shall ensure that those areas are free of combustible material or material that may otherwise be damaged. Work in place must be protected by the subcontractor performing the work.
    - When "Hot Work" is performed in Permit Required Confined Spaces, the applicable Standards will be followed for Permit Required Confined Space work.
    - "Hot Work" shall not be performed near fuel storage areas or other areas where combustible vapors may accumulate.
  - Occupied Buildings: "Hot Work" shall not be performed in occupied buildings without notification of the local Fire Department responding agency (local Engine Company).
    - The fire suppression system for the building must be in operation.
    - The appropriate Building or Department Managers must be notified and the work coordinated with their operations.
    - Preparation for the work and clearing of combustible materials shall be in accordance with NFPA 51B. Combustible material shall be cleared from the work area by a distance of 35 feet.

Office, Tool Sheds, Etc.

- Shall be constructed of fire-resistive materials and heated with approved fire-safe heating devices in accordance with manufacturers' instructions.
- Shall be separated from materials which present extraordinary fire hazards in accordance with NFPA 241, 241, Table 2-1.1).

- Shall be equipped with a minimum of one 20-lb. ABC fire extinguisher each, in accordance with Cal/OSHA Title 8 Construction Safety Orders, Article 36, Section 1922, (a), (1).
- Shall have a 40-gallon waste container adjacent to it.
- Shall not be used to store oily rags, oily clothes, or fuels.

The principles outlined above should provide a reasonable change for a fire-free job. Strict adherence to the intent of this program is to be considered a contractual requirement. (See attached appendix for Hot Work Permit.)

APPENDICES

ASBESTOS ABATEMENT PROGRAM

THE CHARACTERISTICS OF ASBESTOS

There are no visible signs that asbestos is particularly hazardous. Also, no immediate side effects are experienced by workers after exposure. But this common mineral can cause lung disease, cancer and even death if not handled safely. This is why the Standard requires that workers who don't really work directly with asbestos, but who may have incidental exposure, must receive at least "Asbestos Awareness" training.

To help address OSHA's concerns, and provide the awareness training needed by employees under the regulation, this program is designed to present fundamental information.

Employees should understand how long-term exposure to asbestos can harm the human body. Employees should recognize the areas where asbestos may be located in their project.

Employees should know which asbestos and asbestos-containing materials should be repaired and/or removed.

Employees should understand how to avoid potential hazardous maintenance and custodial activities that could lead to asbestos exposure.

Employees should know what personal protective equipment to use to protect against asbestos exposure.

Employees should understand which safe work practices should be used when helping with a minor asbestos clean-up.

Employees should understand why, when there is the potential for exposure to asbestos, air monitoring and medical surveillance can be important elements in providing a safer workplace.

Employees should be familiar with certain requirements in the OSHA Asbestos Standard…especially those concerning workplace controls and personal protective equipment.

Outline of Major Program Points
The following outline summarizes the major points of information employees should be familiar with.

- Asbestos is a mineral which has many positive qualities. It is:
    - Fireproof.
    - Heat resistant
    - Lightweight.
    - Resistant to most chemicals.
    - Sound-absorbing.
    - And it does not conduct electricity.

- Products that contain Asbestos can be helpful, but they can also be very harmful.
- Asbestos has hidden dangers that you need to know about.
- While most rocks break down into tiny particles, like grains of sand… Asbestos breaks down into small fibers, like strands of rope.
    - These fibers are invisible to the human eye.
    - You need a powerful microscope to see them.
    - These fibers have the strength of steel.
- The biggest problem when dealing with Asbestos fibers is that you cannot:
    - See them.
    - Taste them.
    - Smell them.
- If Asbestos fibers enter your body, they can cause severe damage.
- Asbestos has been used throughout the building and construction industry. It was:
    - Mixed with plaster and wallboard for strength and support.
    - Sprayed onto wall, ceilings, and steel girders for fireproofing.
    - Wrapped around pipes, boilers and heating ducts for insulation.
    - Even in floor and ceiling tiles.
- Several types of workers need to know about the hazards of working with or near Asbestos:
    - Custodial.
    - Engineering.
    - Maintenance.
- Asbestos hazards are so serious that OSHA has issued a Standard requiring that employees be:
    - Trained
    - Monitored.
    - Protected.
- As part of the training in this program, you will learn:
    - The health risks and effects of long-term Asbestos exposure.
    - How to recognize and deal with possible Asbestos hazards.
    - The content of your employer's Asbestos Management Plan.
- Asbestos fibers can float in the air for long periods of time, and can be easily inhaled.
    - They can cause severe damage to the lungs.
    - Yet in most instances there are not any immediate side-effects.
- This exposure to Asbestos fibers can lead to a disease known as "Asbestosis."
    - It can cause shortness of breath.
    - It may cause enlargement of the heart.
    - In extreme cases, it can even cause death.
- Long-term exposure to Asbestos fibers can also lead to cancer.
- People who smoke are especially vulnerable to Asbestos.
    - Cigarette smoke breaks down the lungs' defensive system, and leaves them vulnerable to Asbestos fibers.
    - Smokers are over 50 times more likely to become sick after long-term exposure to Asbestos.
- Some of the ways to reduce your exposure to Asbestos including knowing:
    - Where it is located in your work areas.

    - How to recognize potential problems.
    - What to do if you find damaged Asbestos materials.
- If Asbestos-Containing materials are located in your workplace, your facility will have an Asbestos Management Plan.
    - The plan will contain a list of Asbestos materials.
    - There should also be a sign o a label at each location to warn you about Asbestos.
    - Notify your supervisor if there is not a sign where Asbestos may be present.
- Asbestos materials that you may encounter generally fit into two categories:
    - Friable.
    - Non-Friable.
- "Friable" Asbestos material can be easily damaged or broken:
    - This can release dangerous fibers into the air.
- "Non-Friable" material is not damaged as easily, but can also release asbestos fibers.
- The three most common materials that contain Asbestos are:
    - Thermal system insulation.
    - Floor tiles.
    - Sprayed-on materials.
- Thermal system insulation is the most common type of friable Asbestos material, and can be found on:
    - Boilers.
    - Utility pipes.
    - Ductwork.
    - Heating systems.
- Keep a look-out for possible problems with this Asbestos material.
    - Even a small tear in the insulation is a potential hazard
- If you encounter damaged insulation, minimize the chance of exposure by acting immediately.
    - Secure the area, even if you are not sure that the material contains Asbestos.
    - Post a warning sign.
    - Notify your supervisor, your facility's environmental manager or an outside company (if appropriate).
- If you cannot fix the situation immediately, you may be asked to temporarily patch the damaged area.
    - Before starting work, put on appropriate personal protective equipment.
    - This may include gloves, a respirator and disposable overalls.
    - Wrap the damaged material with strong plastic.
    - Secure it with duct tape.
- The professionals will find a more permanent solution.
    - When they arrive, keep clear and let them do their work.
- Never handle or remove any Asbestos material unless authorized and properly equipped.
    - If Asbestos material needs to be removed, first talk to your supervisor to find out who in your facility is qualified.
- Floor tiles, as well as the glue used to stick the tiles to the ground, can also contain Asbestos.
    - Although floor tiles are non-friable, if they are damaged they can still release fibers.
    - Look for cuts, grooves or cracks in the material.

    - If you notice damage, seal off the area and notify your supervisor.
    - Do not grind, cut or break apart floor tiles, since this could release fibers.
- If you need to strip a floor's finish, use the "Wet Method."
    - Dampen the floor so fibers are less likely to become airborne.
    - Use a Low Abrasion Pad, at speeds of less than 300 rpm, for safe cleaning.
- Ceiling tiles may also contain Asbestos.
    - Be careful when changing light bulbs or replacing tiles.
    - Look for broken corners or other damaged areas.
    - Both are signs that the tiles may be releasing fibers.
- Asbestos may also be found sprayed onto ceilings and walls.
    - They are friable materials.
    - They must be handled with extreme caution.
- Sprayed on materials can also peel away from a surface, and the dust and debris could contain Asbestos.
    - Do not sweep or shovel material while "dry."
    - This stirs up fibers into the air where they can be inhaled.
    - Report the problem to your supervisor, who will arrange for clean-up and disposal.
- Depending on the job, you may be asked to assist in the repair or removal of Asbestos at your facility.
    - Make sure that you use proper personal protective equipment.
    - Although Asbestos is not a skin contact hazard, by wearing disposable overalls your decontamination will be much easier.
- You will also need to wear a respirator fitted with special filters, to help prevent you from inhaling fibers.
    - The respirator must be the right size and shape for your face.
    - "Fit test" the respirator to prevent gaps between your face and the mask, so Asbestos fibers cannot "leak" through.
    - You'll be trained to clean and maintain your respirator, as well as how and when to change the filters.
- When cleaning up any Asbestos-Containing materials, never use an ordinary vacuum.
    - Even a shop-grade vacuum will send fibers into the air.
    - Vacuums used for Asbestos clean-up must be fitted with special HEPA filters.
    - These "High Efficiency Particulate" fibers prevent the release of Asbestos fibers into the air.
- Remember to use the "wet method" during clean-up activities.
    - Make sure the Asbestos is wet before, during and after handling, even if a HEPA vacuum is used.
    - After any clean-up, "wet wipe" the area with a damp cloth.
    - Be sure to dispose of the cloth properly.
- Asbestos materials must be properly bagged and labeled.
    - Use only official "Asbestos Disposal Bags" for this purpose.
    - When labeling a bag, use a "Generator Label" which lists the name and address of your facility.
- If an Asbestos Disposal Bag becomes torn, seal it immediately with tape.
    - Place the damaged bag inside a new bag and reseal it.

    - Place a Generator label on the new outer bag.
    - Remember, Asbestos is a regulated waste (it must be hauled to a licensed landfill).
- When helping with an Asbestos cleanup, you may be asked to wear an Air Sampling Device.
    - It measures the airborne concentration of Asbestos fibers in your work area.
    - An air pump is strapped to your waist, and a sampling cassette is taped to the front of your shoulder.
    - After you turn in the cassette, the air sample is analyzed for Asbestos content.
- After any work with Asbestos materials, you must decontaminate yourself and your equipment.
    - This prevents the spread of Asbestos dust and debris.
    - Always use an official decontamination area.
    - It should be equipped with a HEPA vacuum, as well as a plastic drop cloth (to contain any loose fibers).
- Never eat, drink or smoke in these decontamination areas, or any other area where Asbestos is present.
    - This increases your chance of inhaling fibers.
- When decontaminating your clothing, never brush off dust or debris.
    - This sends Asbestos fibers into the air.
    - Use a HEPA vacuum to remove these materials from your clothing before taking it off.
    - Also vacuum your equipment and Asbestos Disposal Bags.
- Remember that your overalls will be contaminated, and must be disposed of as a regulated waste.
    - Seal them in as Asbestos Disposal Bag.
- Scrub your hands and face with soap and water before leaving work.
    - If possible, shower before leaving your facility as well.
    - If not, shower immediately when you get home.
    - This prevents exposure to your family or friends.
- To provide an additional safeguard, you may be asked to participate in a Medical Surveillance Program.
    - This makes certain that you are not exposed to dangerous amounts of Asbestos.
    - It will also verify that you can safely wear a respirator.
- To provide an additional safeguard, you may be asked to participate in a Medical Surveillance Program.
    - This makes certain that you are not exposed to dangerous amounts of Asbestos.
    - It will also verify that you can safely wear a respirator.
- The Medical Surveillance Program requires regular visits to a doctor.
    - You may be asked to take a “breathing capacity” test, or have X-rays taken of your lungs.
    - This is provided free of charge.
    - If you have any questions, consult with your supervisor.
- A review of the most important points of the program:
    - Asbestos may be a hidden danger, but it is not hard to find ways to protect yourself.
    - Know where Asbestos is located in your facility, and check your Asbestos Management Plan.
    - Inspect all Asbestos locations at least twice a year.
    - Record the results of these inspections in an Asbestos Log Book for future reference.
    - Do not disturb Asbestos-Containing materials unless absolutely necessary.
    - Take steps to prevent contamination during operations involving Asbestos.

- Always remember to decontaminate after coming into contact with any Asbestos material.

LEAD ABATEMENT PROGRAM

This program has been put in place because Webcor/Obayashi Joint Venture recognizes that some of the work we do has the potential to expose our employees to lead. We want to do as much as is practically possible to protect them from lead exposure.

Prior to the start of a project, professionals/Industrial Hygienist in lead detection and abatement will be brought in to do an exposure assessment to determine whether the work environments Webcor/Obayashi Joint Venture employees will be operating in have the potential to expose them to lead. These professionals will be used to give Webcor/Obayashi Joint Venture direction as to how to proceed. It will be our goal to have lead abatement taken care of by licensed lead abatement professionals prior to the arrival of Webcor/Obayashi Joint Venture employees.

To help address OSHA's concerns and provide the lead awareness training needed by employees, this program is designed to present fundamental information.

Lead can be found in a number of workplace environments. Until recently, lead was a common component in paints of all kinds (which can create exposure whenever sanding, "sandblasting," scraping, or even demolition occurs).

Workplace experience and empirical studies have shown that lead is fairly easily absorbed into the body. Breathing airborne lead dust and fumes is the most common route of entry. Lead can also be absorbed if it comes into contact with the mouth or tongue.

Overexposure to lead can occur both on an "acute" basis, where large amounts of lead are absorbed into the body in a short period of time, or on a "long-term" basis where small amounts of lead are absorbed at any one time, eventually accumulating to cause significant health problems.

On May 4, 1993, OSHA published the Interim Final Rule for Lead Exposure in Construction. The Construction Standard establishes "Interim" procedures and work practices that must be followed in construction environments. The OSHA Standard and its compliance requirements are included at the end of this written program. The Lead Standards are "performance based"; the standard will tell you what you have to accomplish.

There is really only one General Requirement in the Lead Standards. This requirement also essentially defines the objectives of the standards as far as OSHA is concerned. That is:

- Employers must make sure that no employee is exposed to lead concentrations greater than 50 micrograms per cubic meter of air, averaged over an eight-hour period in any 24-hour day.

The rest of the standard addresses how to accomplish that goal.

Typically, OSHA requires that you use the following methods to protect your employees:

- Engineering controls.
- Work-practice controls.
- Respiratory protection.
- Personal protective clothing and equipment other than respirators.
- Hygiene facilities and practices.
- Housekeeping.
- Employee information and training.

OSHA requires that every employer who is covered by these Standards provide "Information and Training." For employers in the Construction Industry, it requires that they meet the training requirements of the Hazard Communication Standard ("Right To Know"). Information that must be given employees under the Hazard Communication Standard includes:

- The hazards associated with lead exposure.
- Warning signs and labels that can be found on materials containing lead.
- How to find information about materials containing lead on Material Data Safety Sheets (MSDS).
- Use of personal protective equipment.

THE WRITTEN COMPLIANCE PROGRAM

Prior to the start of a project, professionals/Industrial Hygienist in lead detection and abatement will be brought in to do an exposure assessment to determine whether the work environments Webcor/Obayashi Joint Venture employees will be operating in have the potential to expose them to lead. This policy will be an overall policy with each subcontractor contributing their specific plan as they come on board to the project.

These professionals will give Webcor/Obayashi Joint Venture direction as to how to proceed. It will be our goal to have lead abatement taken care of by licensed lead abatement professionals prior to the arrival of Webcor/Obayashi Joint Venture employees.

INCIDENT REPORTING INSTRUCTIONS

☐ 1. Ensure the safety and security of the individual(s) that were injured or involved, other people on site, the public and the project.

☐ 2. If this is a 911 emergency consult your Crisis Management Plan.

☐ 3. All incidents requiring clinic visits contact Danielle DiRicco at 510-476-2578 or 650-520-4251.

☐ 4. Take photos of the incident scene and surrounding area immediately. Include these photos in the investigation report. Please number, date, use arrows to indicate specific targets, etc.

☐ 5. Contact your Area Safety Director/Manager.

☐ 6. For Webcor/Obayashi Joint Venture Field and Salaried employees complete the entire Incident Investigation Packet thoroughly. The DWC1 form will need to have signatures by both the employee and employer and a copy of the signed form must be given to the employee. You have a maximum of 24 hours to complete the packet. Send all forms via email or fax to Danielle DiRicco at fax number 510-476-3066.

☐ 7. For Subcontractor injuries complete the following forms. You have a maximum of 24 hours to complete the forms. Send all forms via email or fax to Danielle DiRicco at fax number 510-476-3066.

a. Incident Investigation Packet
b. Injured Worker's Statement
c. Supervisor's Statement
d. Witness Statement

☐ 8. Before leaving the doctor's office, obtain the **Physician's Release/Work Status and the Job Analysis/Work Recommendations Report** from the clinic/hospital doctor after each doctor's visit via email or fax to Danielle DiRicco at 510-476-3066.

☐ 9. Provide training certificates, orientation documentation, Job Hazard Analysis for this specific task to include in the Incident Investigation Packet.

☐ 10. Contact your Area Safety Director/Manager if the injured worker must be hospitalized over twenty-four (24) hours for more than observation. OSHA must be contacted within eight (8) hours of the incident by the Area Safety Director/Manager or designated person.

☐ 11. In the event an incident results in a recordable, lost time or near miss a Root Cause Analysis (RCA) shall be performed. The RCA will be scheduled by the Area Safety Director/Manager and participation by the designated project team members is required. See attached Root Cause Analysis instructions.

INCIDENT INVESTIGATION REPORT FORM

#1 Employer Information:

Company Name: _____ WC Policy Number: _____

Mailing Address: _____

Nature of Business (type of contractor):_____

Job Site Name: _____ Project Number: _____

Job Site Address: _____

#2 Employee Information:

Employee Name: _____

Address: _____

Street Address City State Zip Code

Social Security Number: _____-_____-_____ ☐ Male ☐ Female

Phone Number: (___) _____ Date of birth: ____/____/____ Date hired: ____/____/____

Job Title: _____

Employee usually works: _____hours per day, _____days per week, _____ total weekly hours

Employment Status: ☐ Full Time ☐ Part Time ☐ Temporary ☐ Seasonal

Gross wages/salary: $_____ per _____

#3 Injury / Illness Information

Date of Incident: _____ Day of Week: _____Time of Incident: _____

Time Employee Began Work: _____If Employee Died, Date of Death: _____

Type of Injury: _____ Part of body injured: _____

Exact Location of Incident (Bldg. Level/Area): _____

Employee's Direct Supervisor: _____Were they working on a crew? ☐ Yes ☐ No

PPE worn at time of incident (list):_____

Were other workers injured in this event? ☐ Yes ☐ No

Date reported to Webcor/Obayashi Joint Venture: _____, to whom: _____

Was the employee taken to a medical facility offsite? ☐ Yes ☐ No Date: _____

Treating Facility & Phone Number: _____

INCIDENT INVESTIGATION REPORT FORM (continued)

Physician's Name: _____

Employee Returned to: ☐ Regular Work ☐ Modified Work If not, estimated return date: _____

Were they unable to work for at least one day after date of injury? ☐ Yes ☐ No

Date Last Worked: _____ Date Returned to Work: ____ is employee still off work? ☐ Yes ☐ No

Was the employee paid full wages for date of injury or last day worked? ☐ Yes ☐ No

Is the employee's salary being continued? ☐ Yes ☐ No

Equipment, materials and chemicals the employee was using when event or exposure occurred (i.e., Acetylene, welding torch, tractor, scaffold)? _____

_____

_____

_____

_____

_____

General activity at time of incident (i.e., concrete)? _____

_____

_____

_____

_____

Specific task at time of incident (i.e., Finishing)? _____

_____

_____

_____

_____

INCIDENT INVESTIGATION REPORT FORM (continued)

#4 Description of the Incident (not to be completed by injured worker):

NOTE: This does not take the place of a witness Statement. Describe in detail the circumstances of the incident (attach diagrams, drawings and/or photos of accident scene). Give a chronological sequence of events. If materials and/or equipment were involved, start before the materials/equipment was brought to the incident scene describing who, what, where, when, how:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

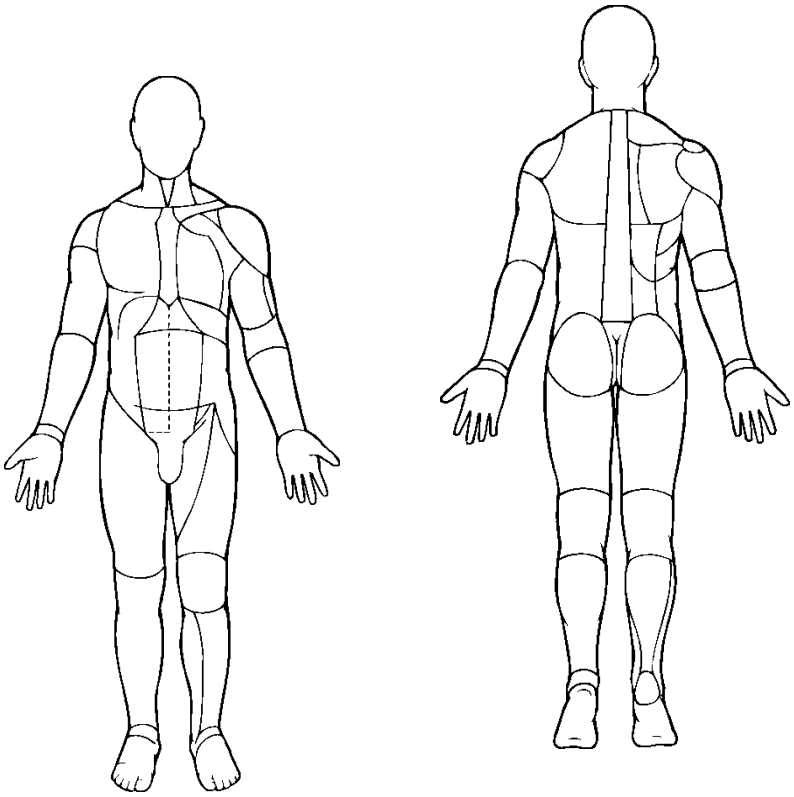
_____

_____

_____

Please indicate the location of all incurred injuries and describe the type of injury.

For example, for a laceration to the right palm – shade the right hand palm and write laceration next to it connected by a line.



INCIDENT INVESTIGATION REPORT FORM (continued)

#5 Additional Information

Name of witnesses and others working with injured worker (attach witness statements):

_____

Object, substance, equipment involved in incident (desc/model/serial #):_____

_____

List PPE worn at time of incident: _____

Safety equipment, PPE & training required for job: _____

_____

Does employee normally operate this equipment? ☐ Yes ☐ No

Was employee instructed in the safe use of this equipment? ☐ Yes ☐ No

When/how? – Describe in detail & attach copies of equipment certifications):_____

_____

Was any defect with the equipment noted or reported prior to accident/incident? ☐ Yes ☐ No

Were standard work procedures followed? ☐ Yes ☐ No If no, why not – describe in detail, attach additional sheets if necessary and attach a copy of the standard site procedures._____

_____

Was a safety rule or specific instruction violated? ☐ Yes ☐ No If yes, what – describe in detail, attach additional sheets if necessary and attach a copy of the rule/regulation? _____

_____

When was the last safety meeting conducted? _____

When was the last jobsite audit conducted? _____

Attach copies of the last safety meeting agenda with sign-in sheet and Job Hazard Analysis for specific task.

#6 Completing Report:

Supervisor Completing Report:
Name: _____
Signature: _____

Management Review By:
Name: _____
Signature: _____

Date report prepared:
_____

State of California
Department of Industrial Relations
DIVISION OF WORKERS' COMPENSATION

Estado de California
Departamento de Relaciones Industriales
DIVISION DE COMPENSACIÓN AL TRABAJADOR

WORKERS' COMPENSATION CLAIM FORM (DWC 1)

PETITION DEL EMPLEADO PARA DE COMPENSACIÓN DEL TRABAJADOR (DWC 1)

Employee: Complete the **"Employee"** section and give the form to your employer. Keep a copy and mark it **"Employee's Temporary Receipt"** until you receive the signed and dated copy from your employer. You may call the Division of Workers' Compensation and hear recorded information at **(800) 736-7401.** An explanation of workers' compensation benefits is included as the cover sheet of this form.

You should also have received a pamphlet from your employer describing workers' compensation benefits and the procedures to obtain them.

Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony.

Empleado: *Complete la sección* ***"Empleado"*** *y entregue la forma a su empleador. Quédese con la copia designada* ***"Recibo Temporal del Empleado"*** *hasta que Ud. reciba la copia firmada y fechada de su empleador. Ud. puede llamar a la Division de Compensación al Trabajador al* ***(800) 736-7401*** *para oir información gravada. En la hoja cubierta de esta forma esta la explicatión de los beneficios de compensación al trabjador.*

Ud. también debería haber recibido de su empleador un folleto describiendo los benficios de compensación al trabajador lesionado y los procedimientos para obtenerlos.

Toda aquella persona que a propósito haga o cause que se produzca cualquier declaración o representación material falsa o fraudulenta con el fin de obtener o negar beneficios o pagos de compensación a trabajadores lesionados es culpable de un crimen mayor "felonia".

Employee—complete this section and see note above ***Empleado—complete esta sección y note la notación arriba.***

1. Name. *Nombre.* _____ Today's Date. *Fecha de Hoy.* _____
2. Home Address. *Dirección Residencial.* _____
3. City. *Ciudad.* _____ State. *Estado.* _____ Zip. *Código Postal.* _____
4. Date of Injury. *Fecha de la lesión (accidente).* _____ Time of Injury. *Hora en que ocurrió.* _____ a.m. _____ p.m.
5. Address and description of where injury happened. *Dirección/lugar dónde occurió el accidente.* _____
6. Describe injury and part of body affected. *Describa la lesión y parte del cuerpo afectada.* _____
7. Social Security Number. *Número de Seguro Social del Empleado.* _____
8. Signature of employee. *Firma del empleado.* _____

Employer—complete this section and see note below. ***Empleador—complete esta sección y note la notación abajo.***

9. Name of employer. *Nombre del empleador.* _____
10. Address. *Dirección.* _____
11. Date employer first knew of injury. *Fecha en que el empleador supo por primera vez de la lesión o accidente.* _____
12. Date claim form was provided to employee. *Fecha en que se le entregó al empleado la petición.* _____
13. Date employer received claim form. *Fecha en que el empleado devolvió la petición al empleador.* _____
14. Name and address of insurance carrier or adjusting agency. *Nombre y dirección de la compañía de seguros o agencia adminstradora de seguros.* _____
15. Insurance Policy Number. *El número de la póliza de Seguro.* _____
16. Signature of employer representative. *Firma del representante del empleador.* _____
17. Title. *Título.* _____ 18. Telephone. *Teléfono.* _____

Employer: You are required to date this form and provide copies to your insurer or claims administrator and to the employee, dependent or representative who filed the claim within **one working day** of receipt of the form from the employee.

SIGNING THIS FORM IS NOT AN ADMISSION OF LIABILITY

Empleador: *Se requiere que Ud. feche esta forma y que provéa copias a su compañía de seguros, administrador de reclamos, o dependiente/representante de reclamos y al empleado que hayan presentado esta petición dentro del plazo de* ***un día hábil*** *desde el momento de haber sido recibida la forma del empleado.*

EL FIRMAR ESTA FORMA NO SIGNIFICA ADMISION DE RESPONSABILIDAD

☐ Employer copy/*Copia del Empleador* ☐ Employee copy/ *Copia del Empleado* ☐ Claims Administrator/*Administrador de Reclamos* ☐ Temporary Receipt/*Recibo del Empleado*

7/1/04 Rev.

Workers' Compensation Claim Form (DWC 1) & Notice of Potential Eligibility
Formulario de Reclamo de Compensación para Trabajadores (DWC 1) y Notificación de Posible Elegibilidad

Return to Work: To help you to return to work as soon as possible, you should actively communicate with your treating doctor, claims administrator, and employer about the kinds of work you can do while recovering. They may coordinate efforts to return you to modified duty or other work that is medically appropriate. This modified or other duty may be temporary or may be extended depending on the nature of your injury or illness.

Payment for Permanent Disability: If a doctor says your injury or illness results in a permanent disability, you may receive additional payments. The amount will depend on the type of injury, your age, occupation, and date of injury.

Vocational Rehabilitation (VR): If a doctor says your injury or illness prevents you from returning to the same type of job and your employer doesn't offer modified or alternative work, you may qualify for VR. If you qualify, your claims administrator will pay the costs, up to a maximum set by state law. VR is a benefit for injuries that occurred prior to 2004.

Supplemental Job Displacement Benefit (SJDB): If you do not return to work within 60 days after your temporary disability ends, and your employer does not offer modified or alternative work, you may qualify for a nontransferable voucher payable to a school for retraining and/or skill enhancement. If you qualify, the claims administrator will pay the costs up to the maximum set by state law based on your percentage of permanent disability. SJDB is a benefit for injuries occurring on or after 1/1/04.

Death Benefits: If the injury or illness causes death, payments may be made to relatives or household members who were financially dependent on the deceased worker.

It is illegal for your employer to punish or fire you for having a job injury or illness, for filing a claim, or testifying in another person's workers' compensation case (Labor Code 132a). If proven, you may receive lost wages, job reinstatement, increased benefits, and costs and expenses up to limits set by the state.

You have the right to disagree with decisions affecting your claim. If you have a disagreement, contact your claims administrator first to see if you can resolve it. If you are not receiving benefits, you may be able to get State Disability Insurance (SDI) benefits. Call State Employment Development Department at (800) 480-3287.

You can obtain free information from an information and assistance officer of the State Division of Workers' Compensation, or you can hear recorded information and a list of local offices by calling **(800) 736-7401**. You may also go to the DWC web site at **www.dir.ca.gov**. Link to Workers' Compensation.

You can consult with an attorney. Most attorneys offer one free consultation. If you decide to hire an attorney, his or her fee will be taken out of some of your benefits. For names of workers' compensation attorneys, call the State Bar of California at (415) 538-2120 or go to their web site at **www.californiaspecialist.org**.

impuestos. Los pagos por incapacidad temporal son dos tercios de su pago semanal promedio, con cantidades mínimas y máximas establecidas por las leyes estatales. Los pagos no se hacen durante los primeros tres días en que Ud. no trabaje, a menos que Ud. sea hospitalizado(a) de noche, o no pueda trabajar durante más de 14 días.

Regreso al Trabajo: Para ayudarle a regresar a trabajar lo antes posible, Ud. debe comunicarse de manera activa con el médico que le atienda, el/la administrador(a) de reclamos y el empleador, con respecto a las clases de trabajo que Ud. puede hacer mientras se recupera. Es posible que ellos coordinen esfuerzos para regresarle a un trabajo modificado, o a otro trabajo, que sea apropiado desde el punto de vista médico. Este trabajo modificado, u otro trabajo, podría extenderse o no temporalmente, dependiendo de la índole de su lesión o enfermedad.

Pago por Incapacidad Permanente: Si el doctor dice que su lesión o enfermedad resulta en una incapacidad permanente, es posible que Ud. reciba pagos adicionales. La cantidad dependerá de la clase de lesión, su edad, su ocupación y la fecha de la lesión.

Rehabilitación Vocacional: Si el doctor dice que su lesión o enfermedad no le permite regresar a la misma clase de trabajo, y su empleador no le ofrece trabajo modificado o alterno, es posible que usted reúna los requisitos para rehabilitación vocacional. Si Ud. reúne los requisitos, su administrador(a) de reclamos pagará los costos, hasta un máximo establecido por las leyes estatales. Este es un beneficio para lesiones que ocurrieron antes de 2004.

Beneficio Suplementario por Desplazamiento de Trabajo: Si Ud. no vuelve al trabajo en un plazo de 60 días después que los pagos por incapcidad temporal terminan, y su empleador no ofrece un trabajo modificado o alterno, es posible que usted reúne los requisitos para recibir un vale no-transferible pagadero a una escuela para recibir un nuevo entrenamiento y/o mejorar su habilidad. Si Ud. reúne los requisitios, el administrador(a) de reclamos pagará los costos hasta un máximo establecido por las leyes estatales basado en su porcentaje del incapicidad permanente. Este es un beneficio para lesiones que ocurren en o después de 1/1/04.

Beneficios por Muerte: Si la lesión o enfermedad causa la muerte, es posible que los pagos se hagan a los parientes o a las personas que vivan en el hogar, que dependían económicamente del/de la trabajador(a) difunto(a).

Es ilegal que su empleador le castigue o despida, por sufrir una lesión o enfermedad en el trabajo, por presentar un reclamo o por atestiguar en el caso de compensación para trabajadores de otra persona. (El Codigo Laboral sección 132a). Si es probado, puede ser que usted reciba pagos por perdida de sueldos, reposición del trabajo, aumento de beneficios, y gastos hasta un límite establecido por el estado.

Ud. tiene derecho a estar en desacuerdo con las decisiones que afecten su reclamo. Si Ud. tiene un desacuerdo, primero comuníquese con su administrador(a) de reclamos, para ver si usted puede resolverlo. Si usted no está recibiendo beneficios, es posible que Ud. pueda obtener beneficios de Seguro Estatal de Incapacidad (SDI). Llame al Departamento Estatal del Desarrollo del Empleo (EDD) al (800) 480-3287.

Ud. puede obtener información gratis, de un oficial de información y asistencia, de la División estatal de Compensación al Trabajador *(Division of Workers' Compensation – DWC)*, o puede escuchar información grabada, así como una lista de oficinas locales, llamando al **(800) 736-7401**. Ud. también puede ir al sitio electrónico en el Internet de la DWC en **www.dir.ca.gov**. Enlácese a la sección de Compensación para Trabajadores.

Ud. puede consultar con un(a) abogado(a). La mayoría de los abogados ofrecen una consulta gratis. Si Ud. decide contratar a un(a) abogado(a), sus honorarios se tomarán de sus beneficios. Para obtener nombres de abogados de compensación para trabajadores, llame a la Asociación Estatal de Abogados de California *(State Bar)* al (415) 538-2120, ó vaya a su sitio electrónico en el Internet en **www.californiaspecialist.org**.

INJURED WORKER STATEMENT

Date: _____ Project Name: _____

Name: _____Date of Birth: _____

Address: _____ City, State, Zip _____

Phone: _____ _____Phone 2:_____

Date of Incident: _____Time of Incident: _____ □ AM □ PM

What happened? (Explain in Detail)

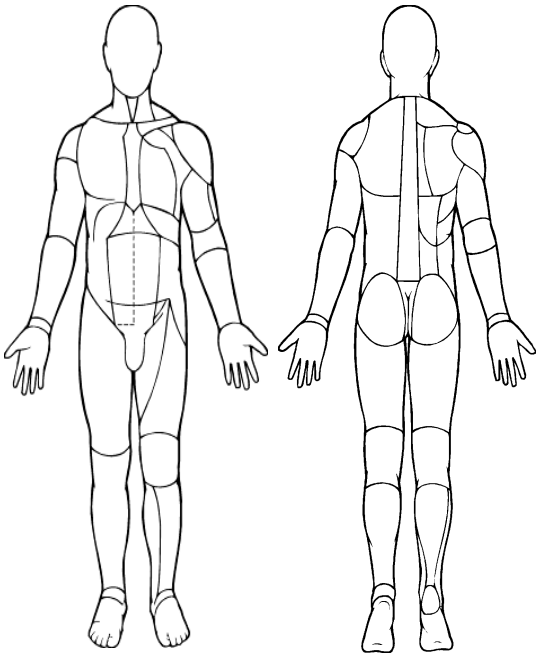
_____
_____
_____
_____
_____
_____
_____
_____
_____

List names of co-workers that witnessed the incident:

_____
_____

To what part of the body was the injury sustained?
(Please print in this space and mark with "X" on diagram)
_____
_____

Employee Signature: _____



EMPLOYEE WITNESS STATEMENT

Date: _____ Project Name: _____

Name of witness_____ Company: _____

Address: _____ City, State, Zip _____

Phone: _____ Phone 2:_____

Date of Incident: _____ Time of Incident: _____ □ AM □ PM

Name of injured worker: _____

What happened? (Explain in Detail)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

I believe the preceding statement to be true to the best of my knowledge.

Witness Signature: _____

SUPERVISOR STATEMENT

Date: _____ Project Name: _____

Name of supervisor_____ Company: __ _____

Address: _____ City, State, Zip _____

Phone: _____Phone 2:_____

Date of Incident: _____Time of Incident: _____ □ AM □ PM

Name of injured worker: _____

What happened? (Explain in Detail)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

I believe the preceding statement to be true to the best of my knowledge.

Supervisor Signature: _____

RETURN TO WORK PROGRAM

Modified work is defined as the temporary period of time when the employee first comes back to work with restrictions or job modifications, until the time when they are fully functional in their job or the Company determines that it cannot reasonably accommodate the work restrictions.

Webcor/Obayashi Joint Venture will attempt to provide modified work that allows our injured employees an opportunity to return to work on a modified work status whenever possible. This modified work process will focus on your abilities and we will attempt to make the necessary accommodations for your work restrictions.

When an employee reports an injury, they will be given certain forms and may be taken to a doctor for treatment and/or an examination. If the doctor determines that the employee qualifies for our Return to Work Program, the doctor will complete a work status report with the recommended restrictions for modified duty. Webcor/Obayashi Joint Venture will then review the work status report and to the extent possible provide modified work until the employee is able to return to full duty. Modified work may be offered at any project and/or any shift.

You must inform your doctor that there is modified work available to you, regardless of your work restrictions. You must also report to work immediately if possible, or by the next working day to inform your supervisor in any changes to your work restrictions. You must give your supervisor your written work status from the doctors listing all work restrictions. You may not return to work without release from your doctor.

This letter serves as notice to you that modified work is available to you. Failure to return to the position that is available may affect your employment with Webcor/Obayashi Joint Venture.

Webcor/Obayashi Joint Venture feels it is important to create an environment that allows injured employees an opportunity to recover to their maximum potential and, whenever possible, continue to contribute to the success of our organization.

☐ I have read and fully understand the above policy for Webcor/Obayashi Joint Venture Return-To-Work Program.
Signing this form states that I will accept modified duty.

_____	_____	___/____/____
Employee Name (Printed)	Employee Signature	Date

RETURN TO WORK AGREEMENT

Webcor/Obayashi Joint Venture has modified work available that allows our injured employees an opportunity to return to work on a modified work status whenever possible. This modified work process will focus on your abilities and we will attempt to make the necessary accommodations for your work restrictions.

Information received from Dr. _____indicates that although you are not able to perform all of your customary job duties, you may perform other modified duties as of ___/___/_____ that are within the following restrictions/capabilities:

We request that you report on:

Date: _____ Report to: _____
Time: _____ Days Per Week: _____
Address: _____ Hours Per Day: _____
Phone: _____

** Wages will not be affected by this agreement.*

Modified work is defined as the temporary period of time when the employee first comes back to work with restrictions or job modifications, until the time when they are fully functional in their job or the Company determines that it cannot reasonably accommodate the work restrictions.

This letter serves as notice that modified work is available to you. Failure to return to the position that is available may affect your workers' compensation benefits and may be grounds for termination.

Webcor/Obayashi Joint Venture feels it is important to create an environment that allows injured employees an opportunity to recover to their maximum potential and continue to contribute to the success of our organization.

☐ I _____ agree to the restrictions given to me by the doctor and will report For modified duty on ___/____/_____.

☐ I declined this modified work position.

_____ ____/_____/_____
Employee Signature Date

If you have any questions or concerns, please contact Danielle DiRicco at 510-476-2578 or 650-520-4251.

MODIFIED DUTY OFFER LETTER

3/20/2008

Jane Doe
1234 Happy Lane
San Francisco, CA 94105

Re: Bona Fide Offer for Modified Duty
Dear Jane Doe:

Webcor/Obayashi Joint Venture has offered you modified duty to accommodate the restrictions given by your doctor. Our records show that you have not shown up to work or called your Supervisor in 3 days, we would like to offer you once again modified duty to help you transition back to your full capacity.

We believe this assignment is within your capabilities as described by your doctor. You will only be assigned tasks consistent with your physical abilities, skills and knowledge. If any training is required to do this assignment, it will be provided.

Job title: _____

Description of physical requirements of this position_____
_____

Address: _____

Work Hours: From: (_____) To: (_____)

(Wages will not be affected)

Job: _____Supervisor_____

-Attached is a copy of the letter you signed at the doctor's appointment when you were put on modified duty, stating you agreed to accept modified/light duty.
-Attached is a copy of the doctor's status report with your restrictions.

This job offer will remain open for 48 hours from your receipt of this letter. If we do not hear from you within 48 hours, we will assume that you have refused this offer and this may be grounds for termination.

We look forward to your return. If you have any questions, please do not hesitate to contact me at:
510-476-2578 or 650-520-4251 or email me at **ddiricco@webcor.com**

Sincerely,

Danielle DiRicco
Safety Project Assistant

ELEVATED WORK

Policy & Scope

All contractors have the duty to provide fall protection for all workers potentially exposed to a fall situation. *Safety harness is the only acceptable means of personal fall arrest system permitted on this site, the use of safety body belts is not acceptable and violates federal OSHA standard 1926.502 (d).*

Pre-Task Planning/Job Hazard Analysis

Work activities that expose worker(s) to fall hazards of 6 feet or more, work on/around scaffolding, as well as overhead work requiring the worker to be 6 feet or more above the work platform are activities defined by Webcor/Obayashi Joint Venture to be High Hazard and therefore require detailed, written pre-task planning.

Duty to have Fall Protection

All workers must be protected from the hazard of falls whenever work is being completed at heights of six feet (6') or greater measured from the work platform to the bottom of the sole of the foot. The six-foot rule, at minimum, applies to the following conditions:

- Ladders
- Walking and working surfaces
- Unprotected sides and edges
- Hoist areas
- Holes
- Formwork and reinforcing steel
- Ramps, runways, and other walkways
- Excavation and trenching
- Dangerous or large pieces of equipment
- Overhand bricklaying and related work
- Precast concrete erection
- Wall openings
- Floor openings
- Leading edge
- Scaffolding erection/dismantle
- Any additional circumstance that may be deemed necessary by Webcor/Obayashi Joint Venture.

Fall Protection Systems

Anytime a potential fall hazard of 6 feet or more exists, a suitable fall protection system must be provided to protect the worker. Examples of suitable systems include the following:

- Guardrail Systems
- Warning Line Systems
- Safety Net Systems
- Positioning Device Systems
- Personal Fall Arrest Systems

Falling Object Protection Systems
Anytime a potential hazard of falling objects exists, suitable systems must be provided to protect workers. Examples of suitable fall object protection systems include the following:

- Covers
- Toe boards
- Canopies
- Debris Nets

Safety Monitoring Systems
Webcor/Obayashi Joint Venture does not recognize the use of safety monitors as an effective means of ensuring the safety of persons at elevated heights; hence, the use of a safety monitor is only allowed when all other means have been demonstrated to be infeasible. A member of Webcor/Obayashi Joint Venture Project Management, competent in fall protection, will make the final determination, and then only after a written fall protection plan limited to the actual work to be performed is approved by Webcor/Obayashi Joint Venture.

Personal Fall Arrest Systems

Personal fall arrest systems are designed to control the fall of a worker and minimize the injury once a worker has fallen. Personal fall arrest systems consist of the following components:

- Full body harness (body wear)
- Shock absorbing lanyard or retractable (connecting device)
- Tie off point (anchorage)
- Training

Specific Requirements

- Safety harness is the only acceptable means of personal fall arrest system permitted on any Webcor/Obayashi Joint Venture project; the use of body belts is not acceptable for fall protection (including positioning systems).
- Retractable lanyards are the most preferred fall protection systems for this project.
- Each subcontractor and tiered subcontractor is responsible for providing and requiring the use of safety harnesses, lifelines and lanyards when workers are exposed to a fall of 6 feet or greater.
- All subcontractors must provide safety harness at their cost when fall protection is required.
- All lanyards must be equipped with locking snap hooks.
- Appropriate shock absorbing lanyards will be used for fall protection when they do not create a greater hazard due to the length of the potential fall.
- Shock absorbing lanyards are not to be used in combination with a retractable lanyard.
- Any safety harness, lifeline or lanyard actually subjected to in-service loading MUST be immediately removed from service and should not be used again for worker safeguarding.
- Fall arrest equipment should be removed from service when evidence of wear is detected.
- Retractable lifelines are preferred where direct anchorage is not available.
- All safety harnesses, lifelines and lanyards must have a nominal breaking strength of 5,000 lbs (5,400 lbs in CA).

- The anchorage (tie off point) must be capable of withstanding a minimum 5,000 lbs (5,400 lbs in CA) tensile strength per worker attached.
- Anchorage used for attachment of personal fall arrest equipment should be secured above the point of operation whenever possible
- Anchorage, tie off, must generally be above the worker's head.
- Anchorage must be high enough that the worker will not strike any lower level surface or object should a fall occur.
- All fall protection equipment shall be inspected daily/monthly and before each use, with documentation made available upon request that it is in proper working order.

Rescue Plans
Specific plans for rescue of workers should be developed and rehearsed prior to initiating work requiring the use of fall protection. Rescue plans and the basic work plan should be submitted to the Webcor/Obayashi Joint Venture Project Management for review and comment. Concerns expressed by Webcor/Obayashi Joint Venture Project Management or any other reviewing authority shall be addressed fully prior to exposing any worker to the elevated work area.

Floor & Wall Openings and Guard Rail Systems
To control conditions where there is a danger of workers or materials falling through floor, roof, perimeter edges or wall openings, such openings should be covered/protected and marked with a warning sign (i.e., DANGER HOLE, DO NOT REMOVE).

All protection systems are to be maintained at all times. Any violation that is not rectified immediately will result in removal of the responsible supervisor. Further violations will result in termination for cause of the responsible subcontractor's contract.

Floor Openings
Floor opening covers should be capable of supporting the maximum intended floor load and installed so as to prevent accidental displacement. Covers should be distinctively marked and anchored. For purposes of covering, a floor opening is defined as any opening from 2" up to 16 square feet. All others must be protected with top and intermediate rail and toe board.

Rail Systems
- Standard Railing: A standard railing should consist of a top rail, intermediate/mid-rail, toe board and posts:
    - The top rail should be approximately 42 inches from the upper surface of the rail to the floor, platform, or ramp level. The top rail should have a smooth surface throughout its length and be made of at least 2-inch by 4-inch stock, 3/8-inch double clamped wire rope or its equivalent. It should be secured to withstand a 200-pound, horizontal force with minimum deflection.
    - The midrail should be halfway between the top rail and the floor, runway, platform, or ramp. The ends of the rail should not overhang the terminal posts except when it does not constitute a projection hazard. The midrail sill should be made of at least 1-inch by 6-inch stock or its equivalent.

    - The toe board should have a 4-inch minimum height and should be securely fastened in place with no more than 1/4 inch clearance above the floor level.
    - Wooden railing posts (verticals) should be made of at least 2-inch by 4-inch stock or its equivalent, and be spaced so as not to exceed 8 feet on center.
- Other Railings: Other types, sizes and arrangements of railing construction are acceptable, provided they meet the following requirements:
    - A smooth surfaced top rail approximately 42 inches above the floor.
    - Strength to withstand the minimum of 200 pound top rail pressure with a minimum of deflection.
    - For specific material requirements, refer to applicable regulations.

Guard Rail Openings

- Work that requires the opening of guardrails or the removal of hole covers shall be approved in advance by the Webcor/Obayashi Joint Venture Project Management.
- Particular attention shall be given to the alternate means of fall protection required to safely perform the work and protect other workers in the vicinity of the fall exposure.
- Those who remove the rail, are responsible for replacing it in a manner meeting or exceeding local, state, federal, or Webcor/Obayashi Joint Venture practices, whichever may be more stringent.

Safety Nets

Safety nets will comply with CFR 1926.502 requirements. The use of safety nets may be allowed only after a written fall protection plan limited to the actual work to be performed is reviewed and approved by Webcor/Obayashi Joint Venture. Below are guidelines for Safety Nets:

- Safety nets should be provided by the subcontractor or tiered subcontractor when work places are more than 25 feet above the ground or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines or safety harnesses are impractical. When safety net protection is required, operations should not be undertaken until the net is in place and has been thoroughly tested.
- Safety nets should extend 8 feet beyond the edge of the work surfaces where workers are exposed and should be installed as close under the work surface as practical. In no case should the safety net be more than 25 feet below the work surface. Nets should be hung with sufficient clearance to prevent the user's contact with surfaces or structures below. Clearances should be determined by impact load testing.
- The mesh size of the nets should not exceed 6 inches by 6 inches. All nets should meet accepted standards of 17,500 foot pounds minimum impact resistance, as determined and certified by the manufacturer, and should bear a label of proof test. Edge ropes should have a minimum breaking strength of 5,000 pounds. Forged steel safety hooks or shackles should be used to fasten the net to its supports. Connections between net panels should develop the full strength of the net.

Fall Protection Training

Subcontractors and all tier subcontractors must provide as a minimum, by a competent person, the following training. Documentation of training must be forwarded to Webcor/Obayashi Joint Venture upon request. Training must include, at a minimum:

- The nature of the fall hazards in the work area.

- The correct procedure for erecting, maintaining, disassembling and inspecting the fall protection systems to be used (the installation of personal fall protection systems cannot in themselves create a fall hazard exposure to the worker installing the system).
- The use and operations of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems (refer to section 2.3 of this Appendix), controlled access zones and any other methods of protection to be used.
- The role of each worker in the safety monitoring system (refer to section 2.3 of this appendix) when this system is approved for use.
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
- The role of workers in fall protection plans.

Aerial Lifts

- Lifts should be inspected each day prior to use to verify they are in safe working condition. (Refer to Scissor/Boom Lift Inspection form at the end of this Appendix or use manufacturer's inspection guidelines.)
- Only authorized persons should operate an aerial lift, and must be trained on the equipment they will be operating.
- Always stand on the floor of the basket, do not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- A body harness should be worn and a shock absorbing lanyard attached to the boom or basket when working from an aerial lift. Tying off to an adjacent pole, structure or equipment is not permitted.
- Boom and basket load limits specified by the manufacture should not be exceeded.
- The brakes should be locked and when outriggers are used, they should be positioned on pads or a solid surface. Wheel chocks must be used before using an aerial lift on an incline provided they can be safely installed.
- An aerial lift truck should not be moved when the boom is elevated with personnel in the basket.
- Aerial lifts should have both platform (upper) and lower controls. Upper controls should be in or beside the platform within easy reach of the operator. Lower controls should provide for overriding the upper controls. Controls should be plainly marked as to their function. Lower level controls should not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Lifts must be thoroughly inspected to determine if they require two hands or a hand and a foot to operate. Any lift that does not meet these conditions must immediately be removed from service and either returned, replaced, or modified to meet this requirement.
- A spotter may be needed when there is a potential for operator injury due to physical contact with facility systems or structures or in congested areas. Spotters may also be needed when there is a potential for damage to sensitive facility systems or structures.

Scissor Lifts

- Lifts should be inspected each day prior to use to determine that they are in safe working condition (refer to Scissor/Boom Lift Inspection form at the end of this Appendix or use manufacturer's inspection guidelines).

- Only authorized persons should operate a scissor lift, and must be trained on the equipment they will be operating.
- Lifts should be operated in accordance with manufacturer's recommendations.
- Lifts must be thoroughly inspected to determine if they require two hands or a hand and a foot to operate. Any lift that does not meet these conditions must immediately be removed from service and either returned, replaced, or modified to meet this requirement. If the requirement cannot be met for a two-hand controlled scissor lift, and a lift is unavailable to meet this requirement, a spotter will be needed for all equipment movement (other than incidental movement where there is no potential for operator injury due to physical contact with facility systems or structures).

Note: A spotter may be needed when there is a potential for operator injury due to physical contact with facility systems or structures and in congested areas. Spotters may also be needed when there is a potential for damage to sensitive facility systems or structures.

RESPIRATORY PROTECTION PROGRAM

Purpose
The purpose of this plan is to establish a program and procedures for wearing respiratory protection at **WEBCOR/OBAYASHI JOINT VENTURE.**

This program supports compliance with the Occupational Safety and Health Administration Respiratory Protection Standard as found in 29 CFR 1910.134. This program applies to all company employees who work in areas whose exposures to airborne contaminants require the use of respirators.

Definitions
Dusts: Particles released during work operations such as grinding and sawing.

Fit Testing: The process of making sure that an employee's respirator fits property and will provide the necessary protection without any leaks.

Fumes: Vaporized, condensed metals such as lead that may be present during welding operations.

Gases: Examples include nitrogen, methane, and carbon monoxide.

IDLH: An OSHA hazard classification—"Immediately Dangerous To Life & Health." An atmospheric condition that poses an immediate hazard to life or poses immediate irreversible debilitating effects on health.

Mists: Particles of liquid released during operations such as spray painting.

NIOSH: National Institute for Occupational Safety and Health; an agency that establishes minimum performance standards for respirators and tests and approves respirators for various uses.

Vapors: Gaseous forms of a liquid such as paint solvents.

Responsibilities

The Program Administrator
Responsible for:
- Issuing and administering this program and making sure that the program satisfies the requirements of all applicable federal, state, or local respiratory protection requirements.
- Providing initial and periodic training to employees on respiratory protection requirements.
- Conducting hazard assessments where respiratory hazards may be present.
- Assisting managers and supervisors in the selection of appropriate respiratory protection for use on their jobsites.
- Auditing the respiratory protection program to ensure its continued effectiveness.

The Purchasing Agent will be the Jobsite Superintendent.

Responsible for:
- purchasing respiratory protection equipment.
- Assuring that all equipment purchased is approved by NIOSH/MSHA.

Superintendents Whose Jobsites Are Required To Wear Respiratory Equipment.
Responsible for:
- Knowing the hazards in their areas that require respiratory protection.
- Knowing the types of respirators that need to be used.
- Enforcing the wearing of respiratory protection in the areas where it is required.
- Making sure employees are knowledgeable about the respiratory requirements for the areas in which they work.
- Providing training on hazardous chemicals to employees.

Employees Who Are Required To Wear Respiratory Protection.
Responsible for:
- Wearing appropriate respiratory protection.
- Properly maintaining their respiratory protection equipment and keeping it in a clean and operable condition.

Program Activities
General
- Respiratory hazards will be assessed on the jobsite and appropriate protection will be provided for all affected employees.
- Employees are required to wear respiratory protection wherever respiratory hazards exist.
- Respiratory protection is stored and issued from the jobsite office.
- Efforts will be made to minimize the use of hazardous chemicals in the workplace.
- If the use of hazardous chemicals creates an imminent-danger situation, the operation will be discontinued.

Selection and Use of Respirators
- Respirators will be selected according to the type of activity for which they will be used and the type of potential air contaminants associated with these activities.
- Only NIOSH/MSHA approved respirators will be used.
- All respirator protection equipment will be used in accordance with the manufacturer's recommendations.
- In areas in which maintenance and sanitation services are unavailable or respiratory usage is limited, disposable respirators will be used.
- Non disposable respirators which are used exclusively by one person will be maintained and cared for by the wearer.
- All non disposable respirators which are used by more than one person will be cleaned and sanitized between each use.
- Jobsite Superintendents will be responsible for re-issuing of respirators.
- Chemical cartridge respirators will be stored in airtight, labeled containers between each use. All other respirators will be stored in a clean and sanitary manner and labeled with the wearer's name.

- Disposable respirators will be used until the cartridge or filter media requires replacement or when the face piece is dirty.

Respirator Inspection and Maintenance
- Respirators will be inspected by the wearer prior to each use.
- Supervisors on jobsites where respirators are used will verify that appropriate respirator protection is being used, inspected, and maintained properly.
- Non disposable respirators will be inspected according to the manufacturer's instructions.

Fit Testing
- All users of respirators will be fit tested to ensure a proper face piece-to-face seal.
- Employees whose facial hair interferes with the face piece-to-face seal will not be allowed to wear negative-pressure air-purifying respirators.

Training
- All employees who are required to wear respirators will receive training in their use, selection and appropriate maintenance.
- Training will provide an opportunity for the employee to handle the respirator, have it fitted property, test the face piece-to-face seal, wear it in normal air, and wear it in a test atmosphere.

Wearing Respirators In Emergency Situations
- Respiratory protection designated for emergency use will be inspected monthly.
- All employees who are expected to use emergency equipment will be trained in its use.

SILICA EXPOSURE PROGRAM

Purpose
The purpose of this policy is to establish procedures to protect employees from the health hazards associated with exposure to airborne crystalline silica generated by various construction activities. Due to the amount of work we do with concrete and masonry on almost any project; our workers have the potential for silica exposures through abrasive blasting, chipping, hammering, sawing, grinding or demolition of concrete.

Silicosis is a lung disease marked by hardening of lung tissue and symptoms such as shortness of breath, possible fever, fatigue and eventual respiratory failure. Silicosis also renders a person more susceptible to disease of the lungs, such as tuberculosis. Where there is concrete, there is a potential silica exposure so it is essential to monitor our work activities and take the necessary corrective actions to protect our employees.

Responsibilities
Project Supervision shall:
- Evaluate all work activities for silica exposures
- Institute engineering controls as a first line of protection to reduce silica exposures

- Institute all administrative/work practice controls to reduce silica exposures when feasible and when engineering controls have been explored and ruled out.
- Institute the use of respirators to reduce exposures when the above mentioned controls fail to reduce silica exposure levels
- Provide training identified in this policy when employees are exposed to silica hazards
- Provide necessary respirator protection as well as training in its proper use, when deemed necessary.

Craftsmen shall:
- Follow all work plans that identify engineering and administrative work practice controls to reduce their exposure to crystalline silica
- Wear respiratory protection to reduce their exposure to crystalline silica when deemed necessary by their supervisor
- Not eat, drink, use tobacco products or apply cosmetics in areas where there is dust containing crystalline silica

Procedure

Exposure Assessment
- Work tasks that must be monitored for crystalline silica exposure include by are not limited to:
    - Jack hammering and chipping
    - Grinding concrete
    - Tunneling
    - Sandblasting
    - Dry sweeping or blowing concrete debris, sand or rock dust
    - Demolition of concrete/masonry structures
    - Crushing, loading, dumping rock or concrete
    - Saw cutting concrete or rock
    - Crystalline silica exposures must be maintained below the OSHA PEL of

    10mg/m3

    (Percentage Quartz) +2
    - Historical data from similar operations producing silica exposure can be used as exposure monitoring when feasible
    - Assessment of worker exposure to reparable crystalline silica dust during various tasks associated with concrete finishing and demolition activities is performed annually by an Industrial Hygienist. Specific job tasks monitored include:
        - Grinding and Patching
        - Chipping
        - Demolition
        - Segregation, stockpile, and loading of concrete rubble

Engineering Controls
- When it has been determined that employees will be exposed to crystalline silica in excess of the PEL, engineering controls will be used as a first line of defense.
- Engineering controls include, but are not limited to:

    - Use of dust collection systems which are available for many dust generating tools and equipment
    - Wetting down the grinding or cutting surface to reduce dust emissions
    - During saw cutting, use equipment that provides water to the blade
    - During rock drilling, use water through the drill stem to reduce the amount of dust in the air
    - During abrasive blasting use abrasives with a low silica or no silica content
    - Use local exhaust ventilation to prevent dust from being released into the air
- In the event engineering controls fail to reduce worker silica exposure below the PEL administrative controls will be the next line of defense.

Administrative/Work Practice Controls

- When engineering controls cannot be utilized or are not effective to sufficiently reduce exposure to the inhalation of silica, administrative controls will be used when feasible to reduce the time of exposure for the employees
- Where work crews are of sufficient size, the pool of workers skilled in the operation of applicable tools, and job duration is sufficient to accommodate worker rotation, develop a program to reduce the exposure time of individual workers to silica.

Respirator Protection

- When engineering and administrative/work practice controls cannot be utilized or are not effective to sufficiently reduce exposure to inhalation of silica, respirators must be used to reduce employee exposures.
- Select respirators based on the criteria identified in the respirator protection section of this manual.

Follow-up Monitoring

- After initial assessment and institution of exposure controls, follow-up air monitoring will be conducted to assess the effectiveness of the controls put in place
- In the event that the follow-up monitoring reflects that instituted controls have not yet reduced employee exposures, the operations will cease, be re-evaluated and alternative controls will be explored to reduce employee exposures to silica

Training

- Employees will be trained in the following
    - Hazards of silica exposure
    - The requirements of this program
    - Engineering and administrative/work practice controls, if any, that have been instituted to control silica exposures
    - Personal protective equipment specific to their work assignments
    - The employees right of access to exposure monitoring and medical records.

Emergency Procedures

- Call 911
- Identify the injury
- Provide necessary first aid
- Ventilate the area
- Utilize the eye wash station
- Stabilize the person, wear PPE
- Don’t move injured unless absolutely necessary

- Secure scene, make sure no one else can be hurt
- Release care of injured to emergency personnel
- Get medical screening if you come into contact with blood

CONCRETE CODE OF SAFE PRACTICES

Introduction

The concrete appendix is established to assist in conforming to the requirements for all construction activities involving concrete performed on Webcor/Obayashi Joint Venture projects. This includes, but is not limited to:

- Cast in Place
- Shoring & Reshoring
- Formwork/False work
- Post Tensioning
- Placing & Finishing
- Etc.

Definitions

Bull float means a tool used to spread out and smooth concrete.

Formwork means the total system of support for freshly placed or partially cured concrete, including the mold or sheeting (form) that is in contact with the concrete as well as all supporting members including shores, reshores, hardware, braces, and related hardware.

Limited access zone means an area alongside a masonry wall, which is under construction and which is clearly demarcated to limit access by employees.

Precast concrete means concrete members (such as walls, panels, slabs, columns, and beams) which have been formed, cast, and cured prior to final placement in a structure.

Reshoring means the construction operation in which shoring equipment (also called reshores or reshoring equipment) is placed, as the original forms and shores are removed, in order to support partially cured concrete and construction loads.

Shore means a supporting member that resists a compressive force imposed by a load.

Fall Protection

Workers working more than 6 feet above any adjacent working surface or placing reinforcing steel in walls, piers, columns, etc. should be protected by personal fall arrest system, guardrail system or equivalent device. In addition to the above general guidelines, the following specific guidelines will also apply

- Unless otherwise provided by a site specific fall protection plan, the placing of frames and stringers should be from below via appropriate ladders, temporary work platforms, false decks, scaffolds, or other similar work platforms.
- Unless otherwise provided by a site specific fall protection plan, the first several joists spread should be from below via appropriate ladders, temporary work platforms, false decks, scaffolds, or other similar work platforms. Once the first several joists are positioned, a work platform (e.g. 4x6 sheet of

plywood or similar) should be placed on top of a placed joists and all further spreading of joists should take place from this work platform or successive sheets of plywood laid to extend this platform. Work should take place from the center of the bay, with joists spaced no greater than 24" on center. Any work within 6' of the leading edge and greater than 6' above a lower working surface should be protected by a suitable fall protection system.

- Workers inside a Cunningham beam for, where the form leading edge is less than 39" in height and the worker is greater than 6' above a lower working surface, should be protected by a suitable fall protection system consisting of a catenary or similar pendant type line and personal fall arrest system.
- As soon as practical, a perimeter guardrail system should be established. For more information on guardrail systems refer to the Elevated Work Appendix.
- Special attention and consideration should be given to workers on ladders within 6' of leading edge such as when working on columns or wall forms. Additional fall protection measures may be required.
- When working on vertical reinforcing steel columns or false work, fall protection should be set in advance from ladders, manually propelled elevated work platforms, or similar means so that 100% fall protection can be utilized.
- Workers on wall forms greater than six (6) feet above any adjacent working surface should be protected from falling by a personal fall arrest system or equivalent system. Ensure appropriate anchorage points are provided and utilized. Where applicable , a two hook system for 100% fall protection should be utilized.
- Workers who are placing or tying reinforcing steel more than six (6) feet above any adjacent working surface should be protected from falling by personal fall arrest system or equivalent system.
- When workers are exposed to falls greater than six (6) feet above any adjacent working surface while erecting or dismantling shoring systems, they should have suitable fall protection as necessary utilize an appropriate anchorage point
- In addition to the above fall protection requirements, when erecting and dismantling shoring, a minimum of two scaffold grade planks should be used or other similar means, such as mobile scaffolding, lifts, etc. Planks should rest on horizontal frame members and not on cross bracing.
- The use of positioning systems as a sole means of fall protection is not permissible.

For additional information on fall protection requirements, refer to the Elevated Work Appendix.

Formwork/False work

General Guidelines

- Formwork, false work and shoring should be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably by anticipated to be applied to the formwork. Formwork which is designed, fabricated, erected, supported, braced and maintained in conformance with ANSI A10.9-1983 Construction and Demolition Operations – concrete and masonry work, will be deemed to meet the requirements of this paragraph.

- Drawings or plans, including all revisions, for the jack layout, formwork (including shoring equipemt0, working decks, and scaffolds, should be available at the jobsite.
- Procedures for safe installation, removal, lifting etc., should be available at the jobsite and all workers appropriately trained in these procedures as applicable.
- Work areas should be clear of all unauthorized personnel during installation, concrete placement and removal. Appropriate barricading, delineation and/or signage should be placed to limit access and alert other workers of hazards associated with the work area.
- At no time should workers place themselves underneath a live load.
- When hoisting material, the worker should be positioned to the side of the hoisted material and never into the pinch point between the hoisting equipment and the material or in the area where an operator would land material in the event of an emergency.
- Appropriate tag lines should be utilized as required and two tag lines may be necessary to help align/control panels or forms.
- Safe means of access and egress should be maintained at all times.

Removal

- Forms and shores (except those used for slabs on grade and slip forms) should not be remove until the employer determines that the concrete has gained sufficient strength to support its weight and superimposed loads. Such determination should be based on compliance with one of the following:
    - The plans and specifications stipulate conditions for removal of forms and shores, and such conditions have been followed, or
    - The concrete has been properly tested with an appropriate ASTM standard test method designed to indicate the concrete compressive strength, and the test results indicate that the concrete has gained sufficient strength to support its weight and superimposed loads.
- Prior to dismantling, the entire system should be inspected to determine if there are any hazards from displacement, weakening, alterations etc. of the shoring and false work.
- Shores, cross braces etc. should only be removed in the immediate work areas and as appropriate.
- All nails should be removed or bent over immediately upon stripping.
- Shoring, formwork and all other equipment being removed should be stacked, consolidated or placed in an orderly manner as soon as practicable during the removal operation and egress/access paths maintained at all times.
- Only appropriate tools should be used for removal of shoring and formwork. i.e. pry bars, cats paws, tec. versus the claw end of hammers, screwdrivers etc.

Shoring and Reshoring

General Guidelines

- All shoring and reshoring operations should comply with all federal, state local and manufactures regulations.
- All shoring equipment (including equipment used in reshoring operations) should be inspected prior to erection to determine that the equipment meets the requirements specified in the formwork drawings.

- Shoring equipment found to be damaged, severely rusted, missing locking devices etc. should not be used for shoring. Shoring equipment that is in place and is found to be damaged or weakened, should be immediately reinforced.
- Erected shoring equipment should be inspected immediately prior to, during and immediately after concrete placement.
- The sills for shoring should be sound, rigid and capable of carrying the maximum intended load.
- Base plates should be attached to a minimum of 12' square, 2" plywood or equivalent.
- All base plates, shore heads, extension devices, and adjustment screws should be in firm contact, and secured when necessary, with the foundation and the form.
- Existing ground should be level, adequately compacted and loads distributed. Consideration should be given to adverse weather conditions such as washouts, rain impact to slopes etc. Special precautions such as hardwood wedges or bracing should be utilized on sloped surfaces.
- All clamps, screws, pins and other similar components should be in a closed or engaged position.
- Eccentric loads on shore heads and similar members are prohibited unless these members have been designed for such loading. Ensure stringers are centered on these members to minimize eccentric loading.
- Adequate access should be provided to all form deck surfaces. If access ladders are required these should be secured and extend at least 36" above the form deck surface.
- When horizontal shoring is required, these should be engineered and special consideration should be given to installation and conformance to the completed design.
- Ensure all stringers and joists are fully supported and centered over shoring heads/top plates and adequately secured. Further, ensure that all stringers and joists are fully upright and not rolled.
- All horizontal shoring should be installed and erected in compliance with manufacture's requirements as well as federal, state and local regulations.

Frame Shoring

- The design of the shoring should be prepared by a qualified designer and the erected shoring should be inspected by an engineer qualified in structural design.
- The shoring design or layout drawing should be followed with no omissions of required components, or alteration in frame spacing's, types used, towers heights, locations or sizes.
- Shoring loads should be carried on all legs.
- All shoring fames should be plumb and level. This should be checked and corrected at a minimum of during erection and just prior to the pour. Adjustment of shoring frames should not be made once the pour begins.
- When shoring height exceeds a minimum of four (4) times the minimum base width, additional bracing and securing of the frames should be performed.
- Cross braces should never be climbed and workers should climb frames from the inside.

Screw Jacks

- Screw jacks should not exceed the manufactures recommended extension height at any time.

- Screw jack extension should be kept to a minimum for maximum load carrying capacity.
- All screw jacks should be in firm contact with the foundation and frame legs.

Post Shoring

- The single post shores should be vertically aligned/plumbed. This should be checked and corrected at a minimum of during erection and just prior to the pour.
- Adjustment of post shores for any reason, including but not limited to raising formwork, should not be made once the pour begins.
- Refer to the manufacture's guidelines for additional stability measures and bracing requirements of each system used.
- Post shores should be adequately secured at top and bottom to prevent displacement.
- Whenever single post shores are used one on top of the other (tiered), they should comply with the following specific guidelines in addition to the general guidelines for formwork:
    - The single post shores should be spliced to prevent misalignment.
    - The single post shores should be adequately braced in two mutually perpendicular directions at the splice level.
    - Each tier should also be diagonally braced in the same two directions.

Ellis Shores

- Ensure shores are erected with the proper length of timbers allowing a minimum of 24" overlap between shore members.
- The shore clamps should be attached 12" apart with the upper clam at a minimum of 2" form the top of the lower shore. Each clamp should be secured with the appropriate number of type of duplex nails.
- Shores should be raised to the desired height by sliding the upper shore member upwards being careful to avoid pinch points.
- Shore hand jacks should not be used to raise decks, lift formwork or elevate concrete.
- Ensure all shores, jacks and clamps are inspected prior to use and any damaged or defective materials are removed or repaired prior to use.
- Safety nails should be secured above each clamp of the upper shore member casting to prevent uplift or movement during vibration.

Reshoring

- Shores should not be removed, including cross bracing, until the concrete has gained sufficient strength to support its weight and superimposed loads. Such determination shall be based on compliance with one of the following:
    - The plans and specifications stipulate conditions for removal of forms and shores, and such conditions have been followed, or
    - The concrete has been properly tested with an appropriate ASTM standard test method designed to indicate the concrete compressive strength, and test results indicate that the concrete has gained sufficient strength to support its weight and superimposed loads.

- Stripping and removal of shoring equipment should be performed in conformance to the approved stripping sequencing plan.
- Reshoring should be erected, as the original forms and shores are removed, whenever the concrete is required to support loads in excess of its capacity.
- The design of the shoring should be prepared by a qualified designer and the erected shoring should be inspected by an engineer qualified in structural design.
- The shoring design or layout drawing should be followed with no omissions of required components, or alterations in spacing's, types used, heights, locations or sizes.
- Reshoring should not be removed until the concrete being supported has attained adequate strength to support its weight and all loads in place upon it.
- Reshores should be placed directly below load carrying legs to avoid punch through, stress reversals or other undesirable forces on the poured concrete.
- Slabs or beams should be allowed to take their permanent deflection before final adjustment of reshoring equipment is made.
- Horizontal shoring should never be used as part of a reshoring system.

Bracket Scaffolds

- Bracket scaffolds should only be used when through bolted walls, with at least 5/8" diameter bolts.
- Scaffolds should be solidly secured to the walls or the supporting structure.
- Scaffolds should be able to support at least 4 times the maximum intended working load.
- Spacing of brackets should not be greater than 10' apart.
- Railings should be installed on all scaffolds 6' or greater in height.
- Platforms should consist of at least two 2"x10" planks that extend at least 6" over each bracket and no more than 18".
- Platforms should be solidly planked with no more than 7" gap under the back rail and 14" gap to the face of the form.
- Planking should be scaffold grade lumber or equivalent and should be free from damage, defects, cracks, splits etc. Damaged planks should not be used.

Reinforcing Steel

- All protruding reinforcing steel, onto and into which employees could fall, should be guarded to eliminate the hazard of impalement. When working at grade, impalement hazards from 4" to 6' in height, at a minimum, should be protected.
- Reinforcing steel for walls, piers, columns, and similar vertical structures should be adequately supported to prevent overturning and to prevent collapse.
- Employers should take measures to prevent unrolled wire mesh form recoiling. Such measures may include by are not limited to securing each end of the roll or turning over the roll.

- Reinforcing steel should be stockpiled as close as practicable to work areas. Additionally special attention should be taken towards access and egress to work areas, excavations and ensuring work areas are free from tripping hazards or other surface encumbrances.

Concrete Placement and Finishing

General

- Appropriate PPE should be utilized during concrete placement. This includes but is not limited to; safety glasses, fall protection, gloves, boots, hardhat, and long sleeves. Refer to the Personal Protective Equipment appendix for more information.
- Appropriate respiratory protection should be used for all concrete cutting, grinding, sanding, and blasting, scabbling, dry mixing, jack hammering etc. operations or any other operation involving respiratory hazards. Refer to the Respirator Protection Appendix for more information.
- When discharging concrete on a slope, the wheels of ready-mix trucks should be blocked, the brakes set to prevent movement and the operator with the vehicle at all times.
- All washout activities should be completed in the designated washout area.
- All concrete cutting, finishing and cleanup should be done in such a manner that all residue or waste water will be properly contained and disposed of.
- Appropriate precautions should be taken for specialty applications (e.g. acid washing, dyes, stains etc.); in their handling, storage use and disposal.
- Powered and rotating type concrete troweling machines that are manually guided should be equipped with a control switch that will automatically shut off the power whenever the hands of the operator are removed from the equipment handles.
- Bull float handles used where they might contact energized electrical conductors, should be constructed of nonconductive material or insulated with nonconductive sheath that's electrical and mechanical characteristics provide the equivalent protection of a handle constructed of nonconductive material.
- Masonry saws should be guarded with a semicircular enclosure over the blade.
- When operation air guns for cleaning off decks, inside forms etc., these guns should have a maximum of 30 psi nozzle pressure and be equipped with a safety release valve.
- Air guns should have pressure valves, and extension tube and the hoses well maintained with appropriate whip checks.
- Employee operating air guns should have appropriate PPE, including but not limited to, chip protection (i.e. face shield, goggles etc.), ear plugs and respiratory protection as required.
- No employee should be permitted to perform maintenance or repair activity on equipment (such as compressors mixers, screens, pumps used for concrete and masonry construction activities) where the inadvertent operation of the equipment could occur and cause injury, unless all potentially hazardous energy sources have been locked out and tagged.

Concrete Buckets

- No employee shall be permitted to ride concrete buckets.

- No employee should be permitted to work under concrete buckets while buckets are being elevated or lowered into position.
- To the extent practical, elevated concrete buckets should be routed so that no employee or the fewest number of employees are exposed to the hazards associated with falling concrete or falling buckets.
- Concrete buckets equipped with hydraulic or pneumatic gates should have positive safety latches or similar safety devices installed to prevent premature or accidental dumping.
- Concrete buckets should e designed to prevent concrete from hanging up on top of the sides.

Pumpcrete Systems

- No employee should be permitted to apply a cement, sand and water mixture through a pneumatic hose unless the employee is wearing appropriate personal protective equipment.
- Concrete pumping systems using discharge pipes should be provided with pipe supports designed for 100 percent overload.
- Compressed air hoses used on concrete pumping systems should be provided with positive failsafe joint connectors to prevent separation of sections when pressurized.
- Movement of concrete hoses should be planned to limit the amount of manual positioning of hose as much as practicable. When necessary, the use of hooks, ropes or other similar devices should be utilized when handling the concrete hose.

Buggies and Wheelbarrows

- Concrete buggy handles should not extend beyond the wheels on either side of the buggy.
- Handles should be guarded or equipped with knuckle guards.
- All buggies, wheelbarrows or other similar conveyances should be properly maintained and repaired/replaced immediately if damaged, in poor repair or otherwise.
- Paths of access and travel should be level, free of debris and other surface encumbrances and ramps or other access ways should be appropriately built, maintained, and protected.
- Buggies, wheelbarrows etc. should not be overloaded.

Post-Tensioning Operations

- No employee (except those essential to the post-tensioning operations) should be permitted to be behind the jack during post-tensioning operations.
- Signs and barriers should be erected to limit employee access to the post-tensioning area during tensioning operations.
- Appropriate fire protection measures should be taken during burning operations, including by not limited to spark control or blankets, fire extinguishers, wetting formwork etc.

Emergency Response Procedures

In the event of a collapse or failure of formwork, false work or an excavation, the following general emergency procedures should be initiated:

Initial Stage of a collapse (before rescue recovery)

- Get other exposed individuals out of the area.

- Call 911
- Secure the area
- Shut down all equipment that might cause vibration (with the exception of dewatering equipment) or additional loading. Reroute traffic to eliminate vibration if necessary.
- Do not enter a failed excavation or area of collapse without adequate protection
- Do not remove hand tools, personal protective equipment, or other material from the scene that may be used to locate a victim.
- Begin removing standing or seeping water
- Find out if the failure damaged a utility. If so, take appropriate action.
- Consider tying a digging tool to a rope and tossing it t a conscious and able victim so that he or she may dig out without having another person enter the excavation.
- Account for everyone
- Follow standard emergency procedures as detailed in the Crisis Management Plan.

Rescue or recovery

- Do not attempt to pull a partially trapped/buried victim out by a rope or sling. This may cut the victim in half or pull limbs from the body. It may also loosen dirt or material enough to create a secondary cave-in/collapse.
- If equipment is used to remove material from around a victim, remove/dig so that loosened material will fall away rather than toward the victim. It is generally bad practice to use equipment to dig someone out because the vibration and surcharge can cause further failures. In the case of an excavation, a better option might be to locate and use a vacuum truck.
- Assist all emergency response personnel as needed.
- Ensure that adequate equipment is available for a sustained rescue effort (e.g. shoring materials, equipment, generator, lighting, supplies, personnel etc.)
- Control traffic and crowds. Reroute traffic as necessary.

Permitting/Documentation

Before a contractor is on site, the following items should be obtained in writing:

- Permit for excavation/trenching activities (Cal OSHA Excavation Notification Form as applicable) for all trenches/excavations that are equal to or greater than 5’ in depth where an employee is required to enter.
- Permit for any false work or scaffolding 36’ in height or greater total.
- Excavation and trenching plan
- Shoring/False work design or plan
- Name(s) of competent person(s)
- Soils analysis report
- Copy of their Safety Manual

FORMS

MANAGEMENT INSPECTION REPORT

Job #

Job Location/Name

Date
Month / Day / Year

Time

Jobsite Supervisor
Last First

Safety Manager
Last First

Webcor/Obayashi Joint Venture Principal
Last First

Insurance Representative
Last First

X – Corrective Action Required ☐

O – No Corrective Action Required ☐

	WEBCOR/ OBAYASHI	SUB	N/A	CORRECTED
1. PERSONAL PROTECTIVE EQUIPMENT				
1. Hard Hats				
2. Eye Protection				
3. Ear Protection				
4. Respirators				
5. Proper Clothing				
6. Footwear				
7. Safety Belts				
2. HOUSEKEEPING				
1. Exits & Stairs Clear				
2. Piling & Stacking				
3. Debris Removal				
4. Nails Bent or Removed				
3. LADDERS & STAIRS				
1. Ladder Condition				
2. Ladders Tied Off				
3. Ladder 3' Above Landings				
4. Stairs				
4. RAILINGS / FLOOR OPENINGS				
1. Perimeter				
2. Floor Openings / Shafts				
3. Stairs / Ramps				
4. Walkways				
5. Elevator Door Openings				
5. SCAFFOLDS				
1. Railings & Kickboards				
2. Tied to Building				
3. Planks & Platforms				
6. ELECTRICAL				
1. Lighting				
2. Grounding				
3. Cords, Plugs & Receptacles				

	WEBCOR/ OBAYASHI	SUB	N/A	CORRECTED
7. FIRE PROTECTION				
1. Extinguishers				
2. Flammable Materials				
3. Welding / Cutting Equipment				
8. TOOLS				
1. Condition				
2. Guarded				
3. Power Cords				
4. Temp. Power Boxes				
9. SITE & PUBLIC PROTECTION				
1. Excavation / Trenches				
2. Earth Moving Equipment				
3. Forklift / Cranes				
4. Fences				
5. Lighting				
6. Barricades				
7. Signage				
8. Rebar Caps				
10. FIRST AID				
1. Trained Personnel				
2. Kits / Supplies				
3. Sanitation / Water				
11. PROGRAM / INFORMATION				
1. Twice Daily Inspections				
2. Orientation: New Employee / Haz. Sub.				
3. Safety Meetings				
4. Required Signs Posted				
12. OTHER (LISTS)				
1. Safety Manual				
2. MSDS Book				
3. CAL-OSHA 200 Log (Posted Every February)				

Comments:

Title / Signature:

DAILY PROJECT INSPECTION

Job #

Job Location/Name

Week Ending
Month / Day / Year

X – Corrective Action Required ☐ ***O*** – No Corrective Action Required ☐

	M	T	W	T H	F	COMMENTS
A. BASICS						
1.Workers are wearing personal protective equipment						
2.exits and stairways are clear						
3.Construction material stored properly						
4.Site debris removed						
5.Nails bent or removed						
6.Ladder condition and placement						
7.Permanent & temporary rails						
8.Cylinder storage						
9.Hazardous material storage						
10.Electrical Cords and grounding						
11.Extinguishers in place where needed						
12.Excavation / trenches						
13.First aid kit is accessible & stocked						
14.Required signs posted						
15.Construction equipment						
B. CRANES						
1.Crane certification						
2.Load chart						
3.Operator maintenance reports updated						
C. MANLIFT						
1.Ramps, rails, phones & doors are maintained properly						
2.Personnel stretcher stored on top of the man lift						
3.Fire extinguisher in place						
4.Weekly maintenance check reports						
D. BACKHOES						
1.Back-up bell working						
2.Wearing safety equipment						
3.Personnel working with the backhoe a safe distance from the backhoe bucket at all times						
E. TRUCKS						
1.Back-up bell working						
2.Driver wearing safety equipment						
F. COMPRESSOR						
1.Properly maintained						
2.Air tools working properly						
3.Personnel wearing correct safety equipment and have been instructed how to use the equipment						
4.All air hose connectors are wired together						
G. **SHORING / SCAFFOLDING**						
1.Railings & kick boards						
2.Tied off / braced correctly						
3.Planking is the correct size						

Supervisor _____
Last First

EQUIPMENT SAFETY INSPECTION CHECKLIST

Date: _____

Project: _____

Equipment: _____

All guards and fenders	_____	OK	_____	Needs Repair
Brakes	_____	OK	_____	Needs Repair
Lights – front, rear, side, dash	_____	OK	_____	Needs Repair
Back-up alarm – horn	_____	OK	_____	Needs Repair
Ladders, stairs, hand holds	_____	OK	_____	Needs Repair
ROPS (Roll-over protection)	_____	OK	_____	Needs Repair
Seat belts	_____	OK	_____	Needs Repair
Fire extinguisher	_____	OK	_____	Needs Repair
Glass	_____	OK	_____	Needs Repair
Tires	_____	OK	_____	Needs Repair
Electrical cords	_____	OK	_____	Needs Repair
Ground fault circuit interrupters	_____	OK	_____	Needs Repair
Electrical hand tools	_____	OK	_____	Needs Repair
Powder actuated tools	_____	OK	_____	Needs Repair
Pneumatic condition of all hand tools	_____	OK	_____	Needs Repair

Other Items Checked:

Oil level and leaks	___	OK	___	Needs Repair	___	Add	___	Change
Hydraulic oil level and leaks	___	OK	___	Needs Repair	___	Add	___	Change
Anti-freeze level and leaks	___	OK	___	Needs Repair	___	Add	___	Change
Fuel level and leaks	___	OK	___	Needs Repair	___	Add	___	Change
First aid kit	___	OK	___	Needs Repair	___	Add	___	Change

Repaired by: _____

Checked by: _____

JOB

JOB HAZARD ANALYSIS		JOB TITLE (and number if applicable):	PAGE ___ OF ___ JHA NO. ___	DATE:	☐ NEW ☐ REVISED
COMPANY ORGANIZATION:		LOCATION:		DEPARTMENT:	
TITLE OF PERSON WHO DOES JOB:	SUPERVISOR:	REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:			
ANALYSIS BY:		REVIEWED BY:		APPROVED BY:	
GENERAL INSTRUCTIONS:					
OPERATIONS SEQUENCE:	EQUIPMENT, TOOLS AND ALL FACILITIES INVOLVED:	POTENTIAL HAZARDS:	RECOMMENDED ACTION OR PROCEDURE		PAGE/SECTION REFERENCE FROM SUBCONTRACTOR IIPP:

HAZARD ANALYSIS

WELDING / CUTTING "HOT WORK" PERMIT

Permit #_____
Date: _____

Subcontractor:_____

Floor:_____ Room:_____
Area:

CONDITIONS FOR PERFORMANCE OF THE WORK

1. A Designated Fire Watch shall be furnished by the subcontractor performing the work. The Fire Watch shall have no other assigned duties but to ensure a Safe environment in the area during and after the activity of welding, cutting, or open-flame operations.
2. The Fire Watch shall clear the work area, and ensure that it be kept free, of all combustible materials. In occupied buildings, the fire suppression system shall be in operation.
3. Fire-retardant tarpaulins are acceptable and shall be used where applicable.
4. All welding/cutting equipment shall be removed from the building daily. This provision applies to work performed in an existing, occupied portion of the facility.
5. The Fire Watch shall be equipped with appropriate personal protective equipment, such as eye protection, gloves, head protection, welder's jacket, etc.
6. Equipment shall be located so that exhaust fumes are naturally ventilated from the building. Where such locations are not possible, mechanical ventilation shall be provided by the subcontractor performing the work.
7. All oxygen/acetylene equipment shall be transported, used, and stored in strict compliance with WISHA Construction Safety Orders. A separate fire extinguisher (10 B: C minimum) is required at each oxygen/acetylene setup.
8. Appropriate fire extinguishers shall be kept in the work area while all work is in progress. Fire extinguishers are to be provided by the subcontractor performing the work as follows:

WORK AREA	FIRE EXTINGUISHER TYPE	NUMBER REQ'D
Equipment Spaces	ABC (20 lbs)	2
Other Spaces	ABC (20 lbs)	1

9. Welding/cutting shall not be performed until the area has been approved by the Fire Safety Manager.
10. Upon completion of the "Hot Work," the Fire Watch shall inspect the work area and ensure that there are no lingering sparks, smoldering materials, etc. The fire watch shall be maintained a minimum of ½ hour after work has been completed.
11. The Fire Safety Manager shall be notified when the "Hot Work" is complete.
12. Permits are valid for a one (1) week period.

Subcontractor hereby agrees to perform the work in accordance with the requirements noted above.

Permit valid from _____ to _____.

Comments/Special Requirements:

Subcontractor's Representative:_____ Work Complete: _____

Fire Safety Manager:_____ Work Complete: _____

HEAT ILLNESS PREVENTION POLICY

Purpose

The purpose of Heat Illness Prevention Policy is to meet the requirements set forth in the Heat Illness Prevention Standard, Title 8, California Code of Regulations, Section 3395 and also to serve as a supplement to Webcor/Obayashi Joint Venture's Injury and Illness Prevention Program (IIPP). This information is intended and must be used in conjunction with the IIPP. The Heat Illness Prevention Policy establishes procedures and provides information which is necessary to ensure that Webcor/Obayashi Joint Venture's staff is knowledgeable in the prevention and recognition of heat illness to ensure their own safety and the safety of others.

Procedures and Guidelines

In compliance with Heat Illness Prevention Standard, Title 8 regulations, Webcor strives to provide a safe and healthful work environment. To do so the following Procedures are required for all employees of Webcor/Obayashi Joint Venture:

- Provide training to all employees by their supervisors. All trainings should be documented with an employee sign in sheet. Topics include:
    - Types of Heat Illness and their symptoms.
    - Environmental and personal risk Factors for Heat Illness.
    - Webcor/Obayashi Joint Venture's Heat Illness Prevention Policy.
    - The importance or drinking water frequently throughout the day.
    - The importance of reporting symptoms of Heat Illness to their employer/supervisor
    - The importance of allowing the body to adjust gradually to working in high heat.
    - Webcor Procedures for responding to Heat Illness symptoms.
    - Webcor/ Obayashi's Procedures for contacting emergency services.
    - Webcor/Obayashi Joint Venture's Procedures for emergency communication.
- Provide training to all Supervisors. Topics include:
    - All information to be provided to employees.
    - The procedures the supervisor is to follow in implementing this Policy.
    - The Procedures to follow when an employee's begins to show symptoms of heat illness.
- Webcor /Obayashi Joint Venture is to provide access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457 as applicable to all employees. Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water shall be encouraged.
- Webcor/Obayashi Joint Venture is to provide access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes for employees suffering from heat illness or believing a preventative recovery period is needed. Such access to shade shall be permitted at all times.
- During the designated warmer months of the year (April through September) all jobsites are required to incorporate heat illness prevention and awareness training into the Tailgate Safety Meetings. Shade and plenty of water shall be provided in sufficient amount to each and every employee.

Heat Illness Prevention

Heat related illnesses are avoidable if the employees are trained and the right actions are taken before, during, and after working in either indoor or outdoor hot conditions. High temperatures, humidity, air velocity and radiant heat from the sun or a furnace can stress the body's ability to cool itself making heat illness a big concern during hot weather months. These would be considered environmental risk factors. Every employee whose job duties require them to work in the outdoors during summer months, are exposed to elevated heat conditions and therefore are susceptible to heat illness. The three major forms of heat illnesses are: heat cramps, heat exhaustion, and heat stroke. Heat stroke can be a life threatening condition. This document will outline those actions as well as describing the three major forms of heat illness, how to recognize them, and what an action to take to provide first aid before medical care is provided.

- Heat Cramps
  - Description:
    Heat cramps are the most common type of heat related injury and probably have been experienced by nearly everyone at one time or another. Heat cramps are muscle spasms which usually affect the arms, legs, or stomach. Frequently they do not occur until sometime later after work, at night, or when relaxing. Heat cramps are caused by heavy sweating, especially when water is not replaced quickly enough. Although heat cramps can be quite painful; they usually don't result in permanent damage.
  - Prevention/First Aid:
    Drink electrolyte solutions such as Gatorade or plenty of water during the day and try eating more fruits such as bananas to help keep your body hydrated during hot weather. Call 911 and contact your supervisor immediately if the Person becomes ill.

- Heat Exhaustion
  - Description:
    Heat exhaustion is more serious than heat cramps. It occurs when the body’s internal temperature regulating system is overworked, but has not completely shut down. In heat exhaustion, the surface blood vessels and capillaries, which originally enlarged to cool the blood, collapse from loss of body fluids and necessary minerals. this happens when you do not drink enough fluids to replace what you are sweating away symptoms Include: Headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, Anxiety, cool moist skin, weak and rapid pulse (120-200), and low to normal blood
  - Prevention/First Aid**:**
    The employee suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned building. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool, wet clothes or fan them. Have them drink water or electrolyte drinks. Try to cool them down, and have them checked by medical personnel. Victims of heat exhaustion should avoid strenuous activity for at least a day, and they should continue to drink water to replace lost body fluids. Call 911 if the person becomes non-responsive, refuses water, vomits, or loses consciousness.

- Heat Stroke
  - Description:

Heat stroke is a life threatening illness with a high death rate. It occurs when the body has depleted its supply of water and salt, and the victim's core body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or heat exhaustion before progressing into the heat stroke stage, but this is not always the case. It should be noted that, on the job, heat stroke is sometimes mistaken for a heart attack. It is therefore very important to be able to recognize the signs and symptoms of heat stroke and to check for them anytime an employee collapses while working in a hot environment. Symptoms of heat stroke include: A high body temperature (103 degrees F); a distinct absence of sweating (usually); hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, and possibly more severe systems including; bizarre behavior; and high blood pressure. Advance symptoms may be seizure or convulsions, collapse, loss of consciousness and a body temperature of over 108 degrees F.

- Prevention/First Aid**:**
  It is vital to lower a heat stroke victim's body temperature. Quick actions can mean the difference between life and death. Pour water on them, fan them, or apply cold packs. Call 911 to get the person medical aid as soon as possible.

Guidelines for Preventing Heat Illness

- If you are coming back to work from an illness or an extended break or you are just starting to a job working in the heat, it is important to be aware that you are more vulnerable to heat stress until your body has time to adjust. Let your supervisor know you are not used to the heat. It takes about 5 – 7 days for your body to adjust.
- Drinking plenty of water frequently is vital to workers exposed to the heat. An individual may produce as much as 2 to 3 gallons of sweat per day. In order to replenish that fluid the worker should drink 3 to 4 cups of water every hour starting at the beginning of your shift.
- Taking your breaks in a cool shaded area and allowing time for recovery from the heat during the day are effective ways to avoid heat illness.
- Avoid or limit the use of alcohol and caffeine during periods of extreme heat. Both dehydrate the body.
- If your or a co-worker start to feel symptoms such as nausea, dizziness, weakness or unusual fatigue, let your supervisor know and rest in a cool shaded area. If symptoms persist or worsen seek immediate medical attention.
- Whenever possible ear clothing that provides protection from the sun but allows airflow to the body. Protect your head and shade your eyes if working outdoors.
- When working in the heat be sure to pay extra attention to your coworkers and be sure you know how to call for medical attention.

END OF SITE SPECIFIC SAFETY PLAN

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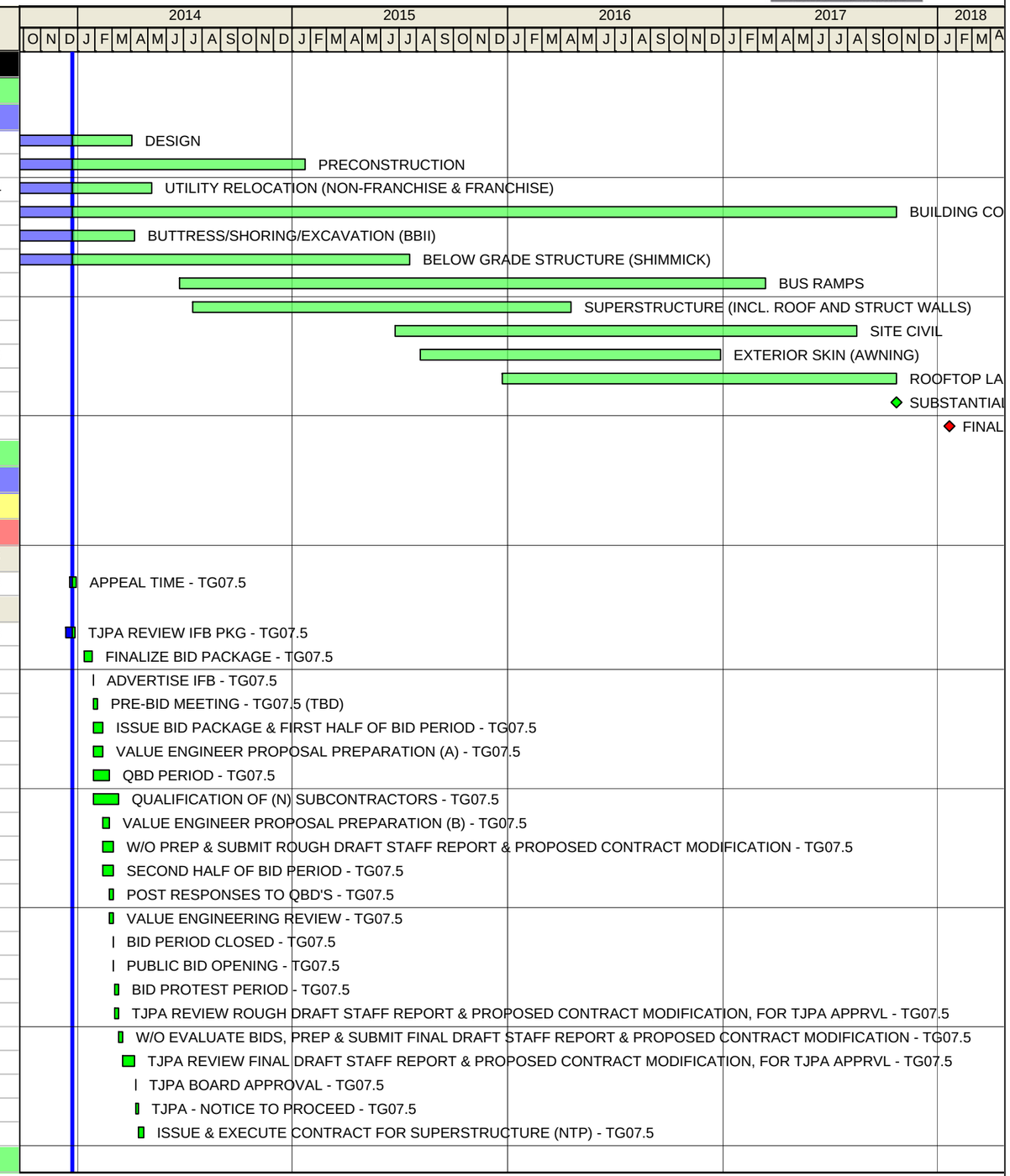
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
TTC - Level 2 Schedule For TG7.5 IFB		2374d	01-Apr-08 A	21-Jan-18
MAJOR MILESTONES		1831d	01-Apr-08 A	21-Jan-18
CONSTRUCTION SUMMARY		1831d	01-Apr-08 A	21-Jan-18
MS-200002	DESIGN	1459d	01-Apr-08 A	03-Apr-14
MS-200010	PRECONSTRUCTION	1443d	17-Mar-09 A	22-Jan-15
MS-200040	UTILITY RELOCATION (NON-FRANCHISE & FRANCHISE)	959d	08-Mar-10 A	07-May-14
MS-200001	BUILDING CONSTRUCTION (FROM NTP TO SC)	1831d	26-Oct-10 A	23-Oct-17
MS-200050	BUTTRESS/SHORING/EXCAVATION (BBII)	837d	28-Mar-11 A	09-Apr-14
MS-200060	BELOW GRADE STRUCTURE (SHIMMICK)	659d	23-Jan-13 A	20-Jul-15
MS-200070	BUS RAMPS	675d	24-Jun-14	15-Mar-17
MS-200080	SUPERSTRUCTURE (INCL. ROOF AND STRUCT WALLS)	436d	16-Jul-14	19-Apr-16
MS-200090	SITE CIVIL	535d	24-Jun-15	17-Aug-17
MS-200100	EXTERIOR SKIN (AWNING)	346d	07-Aug-15	29-Dec-16
MS-200110	ROOFTOP LANDSCAPING	455d	23-Dec-15	23-Oct-17
MS-200120	SUBSTANTIAL COMPLETION	0d		23-Oct-17
MS-200130	FINAL COMPLETION MILESTONE	0d		21-Jan-18
PRECONSTRUCTION		87d	12-Dec-13 A	24-Apr-14
TRADE GROUP PLANNING AND IFB PROCESS		87d	12-Dec-13 A	24-Apr-14
TG07 - ABOVE GROUND SUPERSTRUCTURE		87d	12-Dec-13 A	24-Apr-14
TG07.5 - METAL STAIRS		87d	12-Dec-13 A	24-Apr-14
TG07.5 - PREQUALIFICATION		5d	20-Dec-13 A	30-Dec-13
CA-320790	APPEAL TIME - TG07.5	5d	20-Dec-13 A	30-Dec-13
TG07.5 - BID & AWARD PROCESS (IFB)		87d	12-Dec-13 A	24-Apr-14
CA-320800	TJPA REVIEW IFB PKG - TG07.5	5d	12-Dec-13 A	27-Dec-13
CA-320810	FINALIZE BID PACKAGE - TG07.5	10d	14-Jan-14	27-Jan-14
CA-320840	ADVERTISE IFB - TG07.5	1d	28-Jan-14	28-Jan-14
CA-320850	PRE-BID MEETING - TG07.5 (TBD)	6d	28-Jan-14	04-Feb-14
CA-320820	ISSUE BID PACKAGE & FIRST HALF OF BID PERIOD - TG07.5	13d	28-Jan-14	13-Feb-14
CA-320870	VALUE ENGINEER PROPOSAL PREPARATION (A) - TG07.5	13d	28-Jan-14	13-Feb-14
CA-320860	QBD PERIOD - TG07.5	19d	28-Jan-14	24-Feb-14
CA-320830	QUALIFICATION OF (N) SUBCONTRACTORS - TG07.5	30d	28-Jan-14	11-Mar-14
CA-320910	VALUE ENGINEER PROPOSAL PREPARATION (B) - TG07.5	6d	14-Feb-14	24-Feb-14
CA-320890	W/O PREP & SUBMIT ROUGH DRAFT STAFF REPORT & PROPOSED CONTRACT MODIFIC...	12d	14-Feb-14	04-Mar-14
CA-320900	SECOND HALF OF BID PERIOD - TG07.5	12d	14-Feb-14	04-Mar-14
CA-320880	POST RESPONSES TO QBD'S - TG07.5	5d	25-Feb-14	03-Mar-14
CA-320940	VALUE ENGINEERING REVIEW - TG07.5	5d	25-Feb-14	03-Mar-14
CA-320930	BID PERIOD CLOSED - TG07.5	1d	04-Mar-14	04-Mar-14
CA-320960	PUBLIC BID OPENING - TG07.5	1d	04-Mar-14	04-Mar-14
CA-320970	BID PROTEST PERIOD - TG07.5	5d	05-Mar-14	11-Mar-14
CA-320920	TJPA REVIEW ROUGH DRAFT STAFF REPORT & PROPOSED CONTRACT MODIFICATION, ...	5d	05-Mar-14	11-Mar-14
CA-320950	W/O EVALUATE BIDS, PREP & SUBMIT FINAL DRAFT STAFF REPORT & PROPOSED CONT...	5d	12-Mar-14	18-Mar-14
CA-320980	TJPA REVIEW FINAL DRAFT STAFF REPORT & PROPOSED CONTRACT MODIFICATION, F...	15d	19-Mar-14	08-Apr-14
CA-320990	TJPA BOARD APPROVAL - TG07.5	1d	10-Apr-14	10-Apr-14
CA-321000	TJPA - NOTICE TO PROCEED - TG07.5	2d	11-Apr-14	14-Apr-14
CA-321010	ISSUE & EXECUTE CONTRACT FOR SUPERSTRUCTURE (NTP) - TG07.5	8d	15-Apr-14	24-Apr-14
CONSTRUCTION		1692d	28-Mar-11 A	21-Jan-18



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TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
TRANSBAY CENTER BUILDING		1692d	28-Mar-11 A	21-Jan-18
PROJECT MANAGEMENT		95d	25-Apr-14	11-Sep-14
SUBMITTALS		67d	25-Apr-14	30-Jul-14
TG07.5 - METAL STAIRS		67d	25-Apr-14	30-Jul-14
SUBMITTAL PKG #1 TG07.5 SAFETY AND QC PROGRAM		52d	25-Apr-14	09-Jul-14
SU-477010	SUBMITTAL PKG #1(SAFETY AND QC PROGRAM) - TG07.5	10d	25-Apr-14	08-May-14
SU-477020	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) W/O REVIEW AND SUBMIT TO TJPA - T...	5d	09-May-14	15-May-14
SU-477030	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) TJPA REVIEW - TG07.5	12d	16-May-14	03-Jun-14
SU-477040	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) REVISE - TG07.5	10d	04-Jun-14	17-Jun-14
SU-477050	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) W/O REVIEW AND SUBMIT TO TJPA #2 -...	3d	18-Jun-14	20-Jun-14
SU-477060	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) TJPA REVIEW #2 - TG07.5	12d	23-Jun-14	09-Jul-14
SU-477070	SUBMITTAL PKG #1 (SAFETY AND QC PROGRAM) APPROVED - TG07.5	1d	09-Jul-14	09-Jul-14
SUBMITTAL PKG #2 TG07.5 GENERAL PRODUCT DATA		62d	25-Apr-14	23-Jul-14
SU-477110	SUBMITTAL PKG #2 GENERAL PRODUCT DATA - TG07.5	20d	25-Apr-14	22-May-14
SU-477120	SUBMITTAL PKG #2 GENERAL PRODUCT DATA W/O REVIEW AND SUBMIT TO TJPA - TG07.5	5d	23-May-14	30-May-14
SU-477130	SUBMITTAL PKG #2 GENERAL PRODUCT DATA TJPA REVIEW - TG07.5	12d	02-Jun-14	17-Jun-14
SU-477140	SUBMITTAL PKG #2 GENERAL PRODUCT DATA REVISE - TG07.5	10d	18-Jun-14	01-Jul-14
SU-477150	SUBMITTAL PKG #2 GENERAL PRODUCT DATA W/O REVIEW AND SUBMIT TO TJPA #2 - T...	3d	02-Jul-14	07-Jul-14
SU-477160	SUBMITTAL PKG #2 GENERAL PRODUCT DATA TJPA REVIEW #2 - TG07.5	12d	08-Jul-14	23-Jul-14
SU-477170	SUBMITTAL PKG #2 GENERAL PRODUCT DATA APPROVED - TG07.5	1d	23-Jul-14	23-Jul-14
SUBMITTAL PKG #3A TG07.5 CONSTRUCTION ACCESS STAIRS (WOJV APPROVAL)		33d	25-Apr-14	11-Jun-14
SU-4954844	SUBMITTAL PKG #3A CONST. ACCESS STAIR SUBMITTAL - TG07.5	15d	25-Apr-14	15-May-14
SU-4954854	SUBMITTAL PKG #3A CONST. ACCESS STAIR SUBMITTAL W/O REVIEW - TG07.5	10d	16-May-14	30-May-14
SU-4954874	SUBMITTAL PKG #3A CONST. ACCESS STAIR SUBMITTAL REVISE - TG07.5	5d	02-Jun-14	06-Jun-14
SU-4954884	SUBMITTAL PKG #3A CONST. ACCESS STAIR SUBMITTAL W/O REVIEW AND APPROVE - T...	3d	09-Jun-14	11-Jun-14
SU-4954904	SUBMITTAL PKG #3A CONST. ACCESS STAIR SUBMITTAL APPROVED - TG07.5	1d	11-Jun-14	11-Jun-14
SUBMITTAL PKG #3B TG07.5 STEEL STAIRS SHOP DRAWINGS		67d	25-Apr-14	30-Jul-14
SU-477210	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS - TG07.5	30d	25-Apr-14	06-Jun-14
SU-477220	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS W/O REVIEW AND SUBMIT TO TJPA - ...	5d	09-Jun-14	13-Jun-14
SU-477230	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS TJPA REVIEW - TG07.5	12d	16-Jun-14	01-Jul-14
SU-477240	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS REVISE - TG07.5	5d	02-Jul-14	09-Jul-14
SU-477250	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS W/O REVIEW AND SUBMIT TO TJPA #2...	3d	10-Jul-14	14-Jul-14
SU-477260	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS TJPA REVIEW #2 - TG07.5	12d	15-Jul-14	30-Jul-14
SU-477270	SUBMITTAL PKG #3B STEEL STAIRS SHOP DRWGS APPROVED - TG07.5	1d	30-Jul-14	30-Jul-14
PROCUREMENT		63d	12-Jun-14	11-Sep-14
TG07.5 - METAL STAIRS		63d	12-Jun-14	11-Sep-14
PS-215910	CONSTRUCTION ACCESS STAIRS PROCUREMENT - TG07.5	10d	12-Jun-14	25-Jun-14
PS-215820	MINIMUM PROCUREMENT TIME TO START WORK - TG07.5	30d	31-Jul-14	11-Sep-14
START OF CONSTRUCTION/MOBILIZE		1d	10-Jul-14	10-Jul-14
TG07.5 - METAL STAIRS		1d	10-Jul-14	10-Jul-14
PS-215810	MOBILIZATION - TG07.5	1d	10-Jul-14	10-Jul-14
FIELD WORK		1692d	28-Mar-11 A	21-Jan-18
BUTTRESS/SHORING/EXCAVATION BBI		1339d	28-Mar-11 A	12-Aug-16
ZONE 1 (BUILDING LINES 1 - 10) BBI		9d	17-Nov-14	01-Dec-14
ZONE 2 (BUILDING LINES 10 - 19) BBI		9d	17-Nov-14	01-Dec-14

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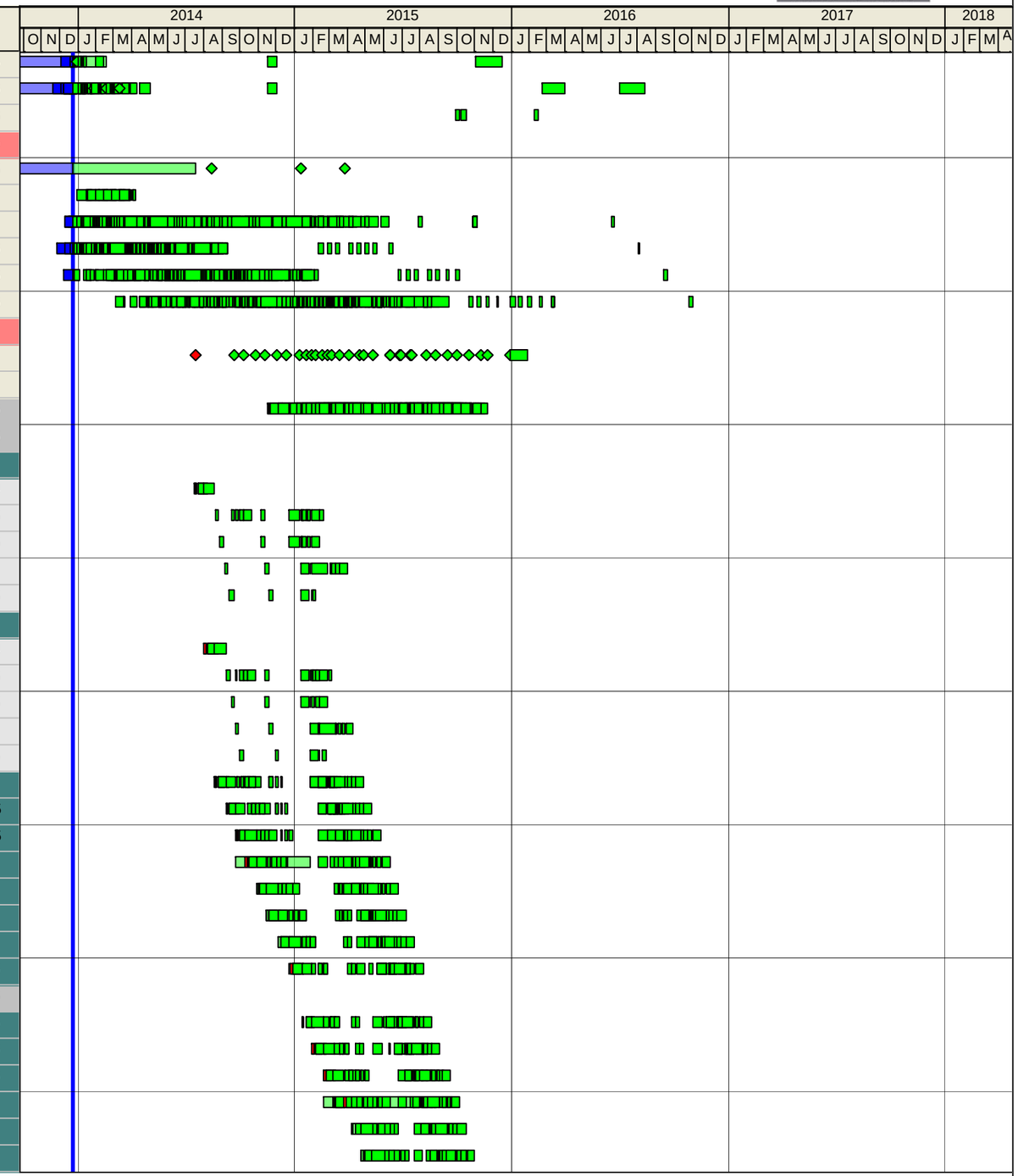
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
	ZONE 3 (BUILDING LINES 19 - 25) (STRUTS 38-50) BBI	993d	21-Oct-11 A	16-Dec-15
	ZONE 4 (BUILDING LINES 25 - 35) BBI	1339d	28-Mar-11 A	12-Aug-16
	DEWATERING SUMMARY BBI	93d	29-Sep-15	16-Feb-16
	BELOW GRADE STRUCTURE (BGS)	812d	17-Jul-13 A	02-Nov-16
	BGS SUMMARY	606d	17-Jul-13 A	26-Mar-15
	BGS GEOTHERMAL / MUD SLAB PREPARATION	69d	31-Dec-13	09-Apr-14
	BGS ZONE 1 (AREAS 1-6 / BUILDING LINES 1 TO 10.5)	626d	10-Dec-13 A	23-Jun-16
	BGS ZONE 2 (AREAS 7-9 / BUILDING LINES 10.5 TO 18.5)	659d	27-Nov-13 A	05-Aug-16
	BGS ZONE 3 (AREAS 10-12 / BUILDING LINES 18.5 TO 25.5)	681d	07-Dec-13 A	20-Sep-16
	BGS ZONE 4 (AREAS 13-16 / BUILDING LINES 25.5 TO 35.3)	663d	05-Mar-14	02-Nov-16
	ABOVE GROUND SUPERSTRUCTURE	731d	16-Jul-14	26-Jun-17
	ABOVE GROUND SUPERSTRUCTURE SUMMARY	377d	18-Jul-14	28-Jan-16
	STRUCTURAL STEEL ERECTION	425d	16-Jul-14	04-Apr-16
	SUPERSTRUCTURE WEST ZONE (W) (BUILDING LINES 1 - 10)	252d	17-Nov-14	23-Nov-15
	SUPERSTRUCTURE CENTRAL ZONE (C) (BUILDING LINES 10 - 20)	262d	16-Jul-14	05-Aug-15
	SS AREA C01 (BUILDING LINES 10 - 11)	175d	16-Jul-14	01-Apr-15
	C01 ERECT STRUCTURAL STEEL	25d	16-Jul-14	19-Aug-14
	C01 GROUND LEVEL - DECK PHASE - CONC/MEP/CLIPS/SOFP	121d	20-Aug-14	19-Feb-15
	C01 LEVEL 2 DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	111d	27-Aug-14	11-Feb-15
	C01 BUS DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	140d	05-Sep-14	01-Apr-15
	C01 ROOF DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	98d	12-Sep-14	06-Feb-15
	SS AREA C02 (BUILDING LINES 11 - 12)	170d	01-Aug-14	10-Apr-15
	C02 ERECT STRUCTURAL STEEL	25d	01-Aug-14	08-Sep-14
	C02 GROUND LEVEL - DECK PHASE - CONC/MEP/CLIPS/SOFP	119d	09-Sep-14	05-Mar-15
	C02 LEVEL 2 DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	109d	16-Sep-14	26-Feb-15
	C02 BUS DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	135d	23-Sep-14	10-Apr-15
	C02 ROOF DECK - DECK PHASE - CONC/MEP/CLIPS/SOFP	96d	30-Sep-14	23-Feb-15
	SS AREA C03 (BUILDING LINES 12 - 13)	169d	19-Aug-14	27-Apr-15
	SS AREA C04 (BUILDING LINES 13 - 14)	167d	08-Sep-14	11-May-15
	SS AREA C05 (BUILDING LINES 14 - 15)	165d	24-Sep-14	27-May-15
	SS AREA C06 (BUILDING LINES 15 - 16)	175d	24-Sep-14	10-Jun-15
	SS AREA C07 (BUILDING LINES 16 - 17)	161d	29-Oct-14	24-Jun-15
	SS AREA C08 (BUILDING LINES 17 - 18)	157d	14-Nov-14	07-Jul-15
	SS AREA C09 (BUILDING LINES 18 - 19)	155d	04-Dec-14	21-Jul-15
	SS AREA C10 (BUILDING LINES 19 - 20)	154d	22-Dec-14	05-Aug-15
	SUPERSTRUCTURE EAST ZONE (E) (BUILDING LINES 20 - 34)	300d	13-Jan-15	28-Mar-16
	SS AREA E01 (BUILDING LINES 20 - 21)	152d	13-Jan-15	19-Aug-15
	SS AREA E02 (BUILDING LINES 21 - 22)	151d	30-Jan-15	03-Sep-15
	SS AREA E03 (BUILDING LINES 22 - 23)	149d	18-Feb-15	21-Sep-15
	SS AREA E04 (BUILDING LINES 23 - 24)	159d	18-Feb-15	05-Oct-15
	SS AREA E05 (BUILDING LINES 24 - 25)	133d	07-Apr-15	16-Oct-15
	SS AREA E06 (BUILDING LINES 25 - 26)	131d	23-Apr-15	30-Oct-15



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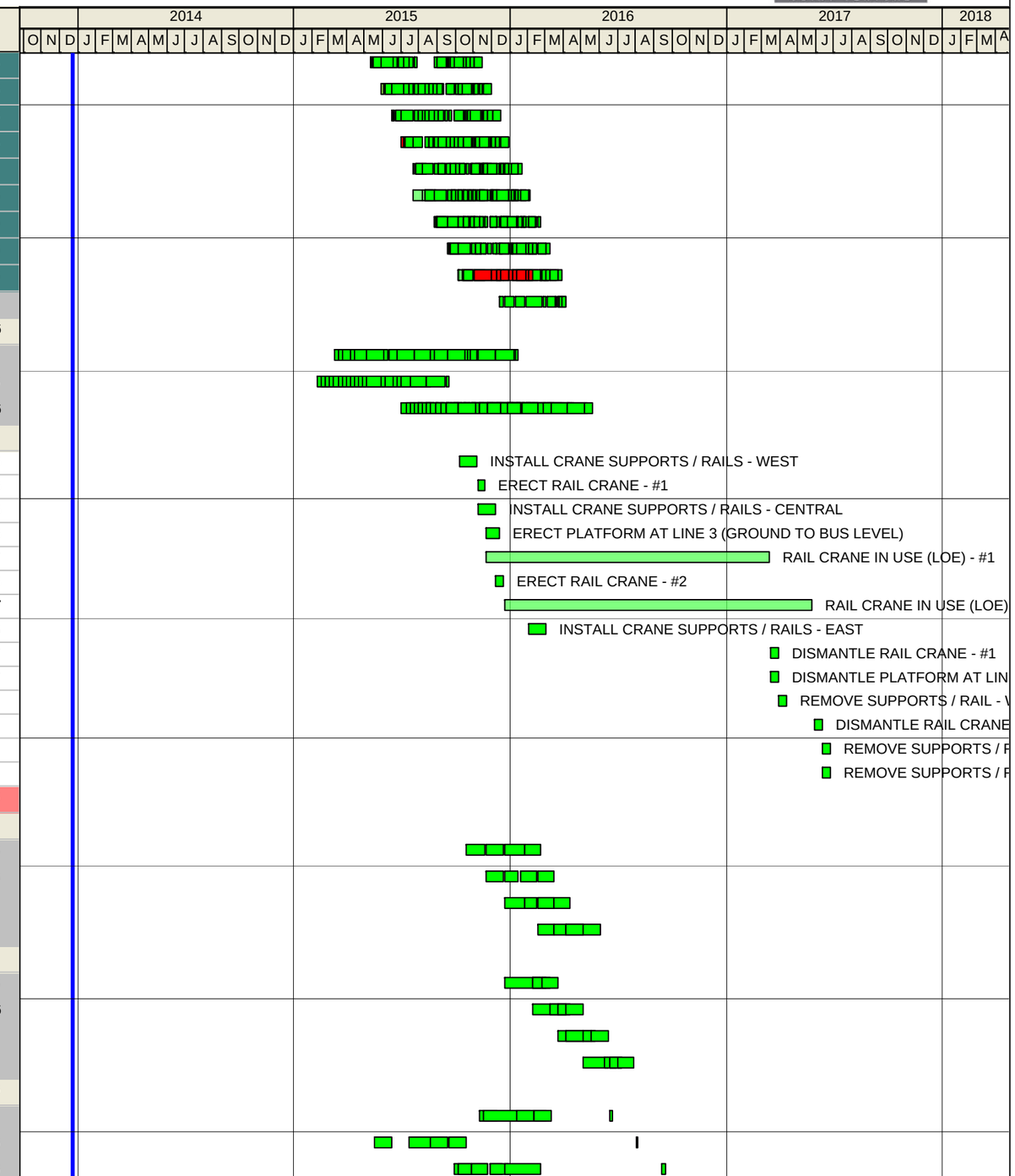
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
SS AREA E07 (BUILDING LINES 26 - 27)		130d	11-May-15	16-Nov-15
SS AREA E08 (BUILDING LINES 27 - 28)		128d	29-May-15	02-Dec-15
SS AREA E09 (BUILDING LINES 28 - 29)		127d	16-Jun-15	17-Dec-15
SS AREA E10 (BUILDING LINES 29 - 30)		123d	02-Jul-15	31-Dec-15
SS AREA E11 (BUILDING LINES 30 - 31)		125d	21-Jul-15	22-Jan-16
SS AREA E12 (BUILDING LINES 31 - 31.7)		135d	21-Jul-15	05-Feb-16
SS AREA E13 (BUILDING LINES 31.7 - 32.4)		120d	26-Aug-15	23-Feb-16
SS AREA E14 (BUILDING LINES 32.4 - 33.2)		116d	17-Sep-15	08-Mar-16
SS AREA E15 (BUILDING LINES 33.2 - 34)		116d	07-Oct-15	28-Mar-16
GROUND LEVEL CONCRETE DECK (BUILDING LINES 33.5 - 35)		75d	15-Dec-15	04-Apr-16
PARK LEVEL		320d	09-Feb-15	19-May-16
PARK LEVEL WEST ZONE (W) (BUILDING LINES 1-10)		212d	11-Mar-15	15-Jan-16
PARK LEVEL CENTRAL ZONE (C) (LINES 10-20)		155d	09-Feb-15	21-Sep-15
PARK LEVEL EAST ZONE (E) (BUILDING LINES 20-34)		220d	02-Jul-15	19-May-16
RAIL CRANES		425d	09-Oct-15	26-Jun-17
RC-100100	INSTALL CRANE SUPPORTS / RAILS - WEST	20d	09-Oct-15	06-Nov-15
RC-100200	ERECT RAIL CRANE - #1	10d	09-Nov-15	20-Nov-15
RC-300200	INSTALL CRANE SUPPORTS / RAILS - CENTRAL	20d	09-Nov-15	08-Dec-15
RC-100700	ERECT PLATFORM AT LINE 3 (GROUND TO BUS LEVEL)	15d	23-Nov-15	15-Dec-15
RC-100300	RAIL CRANE IN USE (LOE) - #1	324d	23-Nov-15	15-Mar-17
RC-300300	ERECT RAIL CRANE - #2	10d	09-Dec-15	22-Dec-15
RC-300500	RAIL CRANE IN USE (LOE) - #2	355d	23-Dec-15	25-May-17
RC-301000	INSTALL CRANE SUPPORTS / RAILS - EAST	20d	02-Feb-16	01-Mar-16
RC-100400	DISMANTLE RAIL CRANE - #1	10d	16-Mar-17	29-Mar-17
RC-100800	DISMANTLE PLATFORM AT LINE 3 (GROUND TO BUS LEVEL) - WEST	10d	16-Mar-17	29-Mar-17
RC-100500	REMOVE SUPPORTS / RAIL - WEST	10d	30-Mar-17	12-Apr-17
RC-300600	DISMANTLE RAIL CRANE - #2	10d	30-May-17	12-Jun-17
RC-300800	REMOVE SUPPORTS / RAIL - CENTRAL	10d	13-Jun-17	26-Jun-17
RC-301400	REMOVE SUPPORTS / RAIL - EAST	10d	13-Jun-17	26-Jun-17
ROUGH INTERIORS		384d	15-May-15	01-Dec-16
TRAIN BOX		155d	19-Oct-15	02-Jun-16
ZONE 1 (LINE 1-10)		85d	19-Oct-15	23-Feb-16
ZONE 2 (LINE 10-17)		75d	23-Nov-15	15-Mar-16
ZONE 3 (LINE 17-23)		75d	23-Dec-15	12-Apr-16
ZONE 4 (LINE 23-35)		75d	17-Feb-16	02-Jun-16
LOWER CONCOURSE		150d	23-Dec-15	29-Jul-16
ZONE 1 (LINE 1-10)		60d	23-Dec-15	22-Mar-16
ZONE 2 (LINE 10-17)		60d	09-Feb-16	03-May-16
ZONE 3 (LINE 17-23)		60d	23-Mar-16	16-Jun-16
ZONE 4 (LINE 23-35)		60d	04-May-16	29-Jul-16
GROUND LEVEL		364d	18-May-15	02-Nov-16
RETAIL WEST (BUILDING LINES 1.4 - 8.5)		153d	11-Nov-15	23-Jun-16
RETAIL EAST (BUILDING LINES 8.5 - 17)		304d	18-May-15	05-Aug-16
GRAND HALL (BUILDING LINES 19 - 25)		242d	30-Sep-15	20-Sep-16



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User: wterry
Data Date: 23-Dec-13

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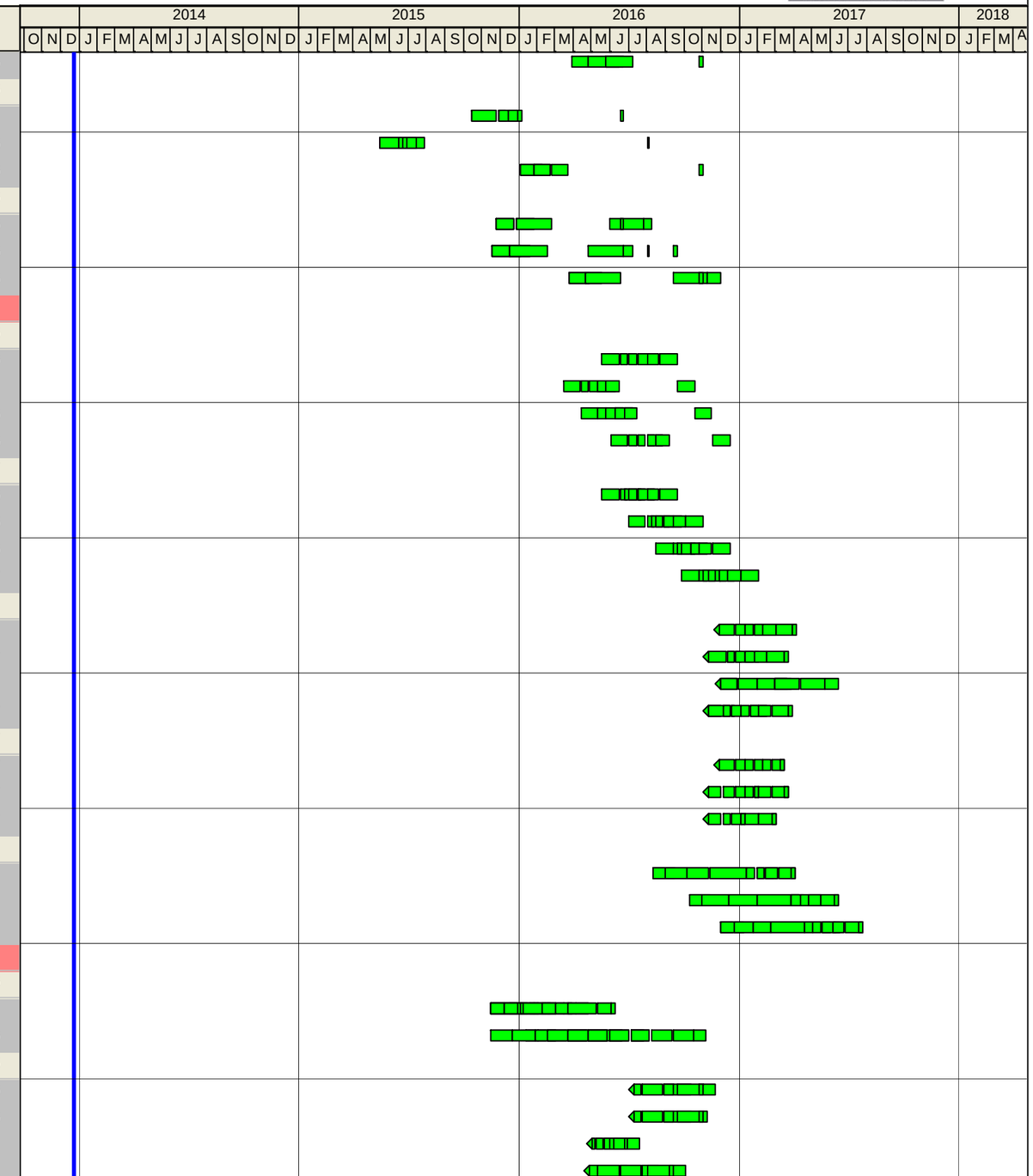
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
	MUNI TERMINAL (BUILDING LINES 27 - 34)	151d	29-Mar-16	02-Nov-16
	LEVEL 2	365d	15-May-15	02-Nov-16
	WEST RETAIL (BUILDING LINES 1.4 - 8.5)	172d	15-Oct-15	23-Jun-16
	CENTRAL RETAIL (BUILDING LINES 9.5 - 17)	305d	15-May-15	05-Aug-16
	EAST RETAIL (BUILDING LINES 27- 33.2)	210d	04-Jan-16	02-Nov-16
	BUS DECK	258d	17-Nov-15	01-Dec-16
	WEST ZONE (LINES 1-10)	176d	24-Nov-15	09-Aug-16
	CENTRAL ZONE (LINES 10-25)	209d	17-Nov-15	20-Sep-16
	EAST ZONE (LINES 25-33.2)	173d	24-Mar-16	01-Dec-16
	FINISH INTERIORS	339d	16-Mar-16	25-Jul-17
	TRAIN BOX	190d	16-Mar-16	16-Dec-16
	ZONE 1 (LINE 1-10)	85d	18-May-16	20-Sep-16
	ZONE 2 (LINE 10-17)	150d	16-Mar-16	19-Oct-16
	ZONE 3 (LINE 17-23)	150d	13-Apr-16	16-Nov-16
	ZONE 4 (LINE 23-35)	135d	03-Jun-16	16-Dec-16
	LOWER CONCOURSE	175d	18-May-16	01-Feb-17
	ZONE 1 (LINE 1-10)	85d	18-May-16	20-Sep-16
	ZONE 2 (LINE 10-17)	85d	01-Jul-16	02-Nov-16
	ZONE 3 (LINE 17-23)	85d	15-Aug-16	16-Dec-16
	ZONE 4 (LINE 23-35)	85d	28-Sep-16	01-Feb-17
	GROUND LEVEL	148d	10-Nov-16	15-Jun-17
	RETAIL WEST (BUILDING LINES 1.4 - 8.5)	90d	28-Nov-16	06-Apr-17
	RETAIL EAST (BUILDING LINES 8.5 - 17)	90d	10-Nov-16	23-Mar-17
	GRAND HALL	135d	01-Dec-16	15-Jun-17
	MUNI TERMINAL (BUILDING LINES 27 - 34)	95d	10-Nov-16	30-Mar-17
	LEVEL 2	90d	10-Nov-16	23-Mar-17
	WEST RETAIL (BUILDING LINES 1.4 - 8.5)	75d	28-Nov-16	16-Mar-17
	CENTRAL RETAIL (BUILDING LINES 9.5 - 17)	90d	10-Nov-16	23-Mar-17
	EAST RETAIL(BUILDING LINES 27- 33.2)	75d	10-Nov-16	02-Mar-17
	BUS DECK	237d	10-Aug-16	25-Jul-17
	WEST ZONE (LINES 1-10)	160d	10-Aug-16	03-Apr-17
	CENTRAL ZONE (LINES 10-25)	170d	11-Oct-16	15-Jun-17
	EAST ZONE (LINES 25-33.2)	160d	02-Dec-16	25-Jul-17
	EXTERIOR ENCLOSURES	351d	07-Aug-15	06-Jan-17
	PRECAST GFRC	243d	16-Nov-15	07-Nov-16
	LEVEL 2	139d	16-Nov-15	08-Jun-16
	BUS DECK	243d	16-Nov-15	07-Nov-16
	CURTAIN WALL / STORE FRONT	145d	27-Apr-16	23-Nov-16
	RETAIL WEST (LVL G-2 BUILDING LINES 1.4 - 8.5)	95d	11-Jul-16	23-Nov-16
	RETAIL EAST (LVL G-2 BUILDING LINES 8.5 - 17)	85d	11-Jul-16	09-Nov-16
	STAIR/ELEVATOR TOWER WEST	55d	02-May-16	20-Jul-16
	GRAND HALL W3 (BUILDING LINES 19 - 25)	110d	27-Apr-16	04-Oct-16



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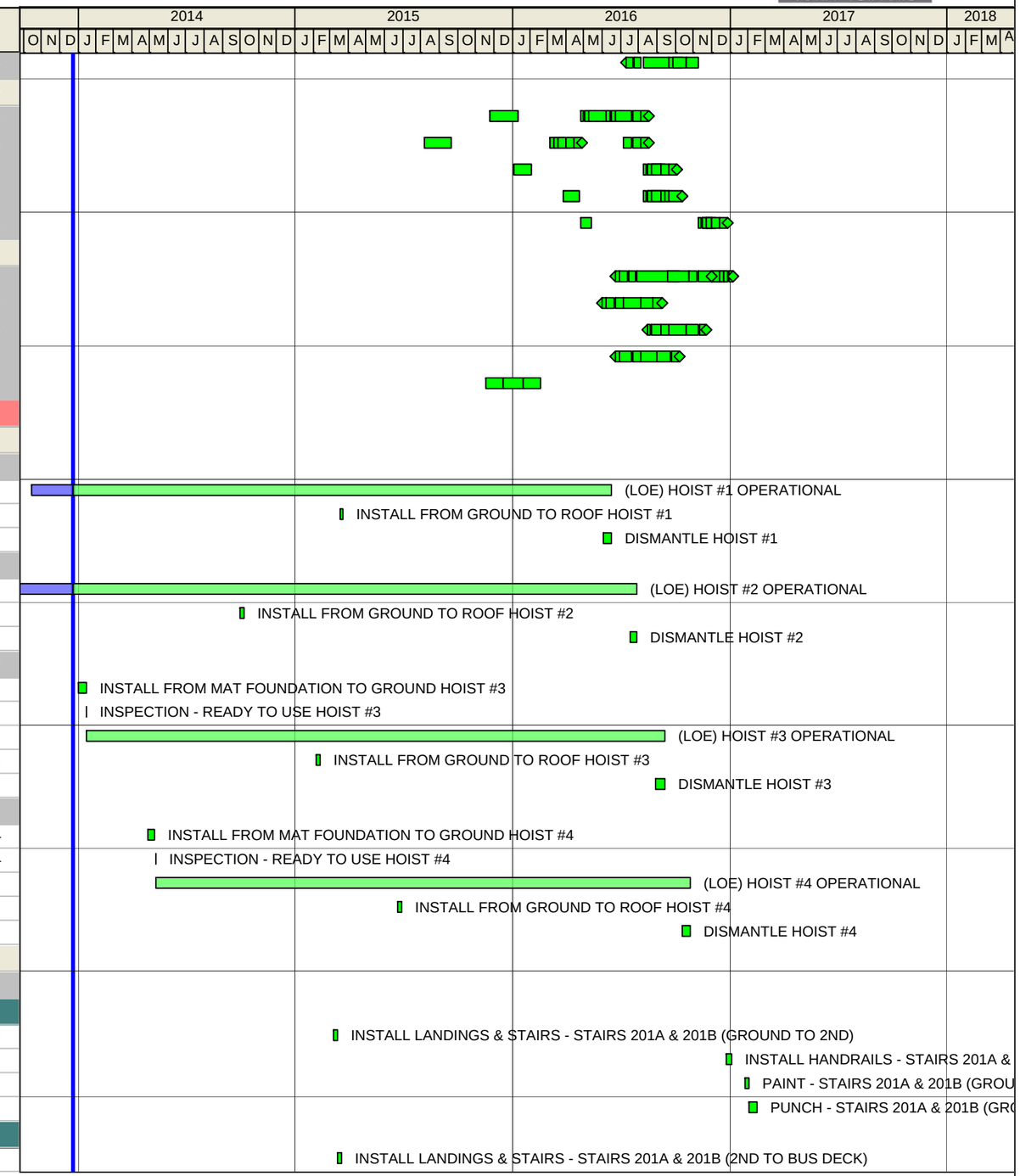
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
MUNI / OFFICE (LVL G-2 BUILDING LINES 27 - 33.2)		85d	11-Jul-16	09-Nov-16
AWNING W1		346d	07-Aug-15	29-Dec-16
WEST AWNING W1 (LINES 1-10)		182d	24-Nov-15	17-Aug-16
CENTRAL AWNING W1 (GRID LINES 10-20)		256d	07-Aug-15	17-Aug-16
GRAND HALL AWNING W1 (GRID LINES 20-25)		190d	04-Jan-16	04-Oct-16
EAST AWNING W1 (LINES 25 - 32)		137d	28-Mar-16	12-Oct-16
EAST END LINE 34 W1 (LINES A - J)		170d	25-Apr-16	29-Dec-16
SKYLIGHTS AND GLASS FLOOR		282d	17-Nov-15	06-Jan-17
LIGHT COLUMN		135d	22-Jun-16	06-Jan-17
SKYLIGHT @ 11 LINE W10		70d	01-Jun-16	09-Sep-16
SKYLIGHT @ 28 LINE W10		70d	15-Aug-16	23-Nov-16
GLASS FLOOR W12		75d	22-Jun-16	07-Oct-16
ROOF GLASS CAFE (W20)		60d	17-Nov-15	17-Feb-16
VERTICAL TRANSPORTATION & STAIRS		1031d	07-Aug-13 A	05-Oct-17
CONSTRUCTION PERSONNEL & MATERIAL HOISTS		848d	07-Aug-13 A	26-Oct-16
PERSONNEL & MATERIAL HOIST #1 @ AREA 1 (TB TO ROOF)		659d	16-Oct-13 A	16-Jun-16
MH-101800	(LOE) HOIST #1 OPERATIONAL	570d	16-Oct-13 A	16-Jun-16
MH-102500	INSTALL FROM GROUND TO ROOF HOIST #1	5d	17-Mar-15	23-Mar-15
MH-102300	DISMANTLE HOIST #1	10d	03-Jun-16	16-Jun-16
PERSONNEL & MATERIAL HOIST #2 BTWN LINE 13 & 14 (TB TO ROOF)		848d	07-Aug-13 A	29-Jul-16
MH-100000	(LOE) HOIST #2 OPERATIONAL	848d	07-Aug-13 A	29-Jul-16
MH-100400	INSTALL FROM GROUND TO ROOF HOIST #2	5d	01-Oct-14	07-Oct-14
MH-100500	DISMANTLE HOIST #2	10d	18-Jul-16	29-Jul-16
PERSONNEL & MATERIAL HOIST #3 BTWN LINE 20 & 21 (TB TO ROOF)		670d	02-Jan-14	13-Sep-16
MH-100800	INSTALL FROM MAT FOUNDATION TO GROUND HOIST #3	10d	02-Jan-14*	15-Jan-14
MH-100900	INSPECTION - READY TO USE HOIST #3	1d	16-Jan-14	16-Jan-14
MH-100600	(LOE) HOIST #3 OPERATIONAL	660d	16-Jan-14	13-Sep-16
MH-101000	INSTALL FROM GROUND TO ROOF HOIST #3	5d	05-Feb-15	11-Feb-15
MH-101100	DISMANTLE HOIST #3	10d	29-Aug-16	13-Sep-16
PERSONNEL & MATERIAL HOIST #4 BTWN LINE 27 & 28 (TB TO ROOF)		620d	28-Apr-14	26-Oct-16
MH-101400	INSTALL FROM MAT FOUNDATION TO GROUND HOIST #4	10d	28-Apr-14	09-May-14
MH-101500	INSPECTION - READY TO USE HOIST #4	1d	12-May-14	12-May-14
MH-101200	(LOE) HOIST #4 OPERATIONAL	610d	12-May-14	26-Oct-16
MH-101600	INSTALL FROM GROUND TO ROOF HOIST #4	5d	23-Jun-15	29-Jun-15
MH-101700	DISMANTLE HOIST #4	10d	13-Oct-16	26-Oct-16
STAIRS		724d	30-Jul-14	29-Jun-17
STAIRS 201A & 201B - LINES 1 / D-F (GROUND TO ROOF PARK)		502d	06-Mar-15	13-Mar-17
STAIRS 201A & 201B - GROUND TO 2ND LEVEL		485d	06-Mar-15	15-Feb-17
ST-103600	INSTALL LANDINGS & STAIRS - STAIRS 201A & 201B (GROUND TO 2ND)	5d	06-Mar-15	12-Mar-15
ST-103700	INSTALL HANDRAILS - STAIRS 201A & 201B (GROUND TO 2ND)	5d	27-Dec-16	03-Jan-17
ST-103900	PAINT - STAIRS 201A & 201B (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17
ST-104000	PUNCH - STAIRS 201A & 201B (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIRS 201A & 201B - 2ND LEVEL TO BUS DECK		499d	13-Mar-15	06-Mar-17
ST-104300	INSTALL LANDINGS & STAIRS - STAIRS 201A & 201B (2ND TO BUS DECK)	5d	13-Mar-15	19-Mar-15



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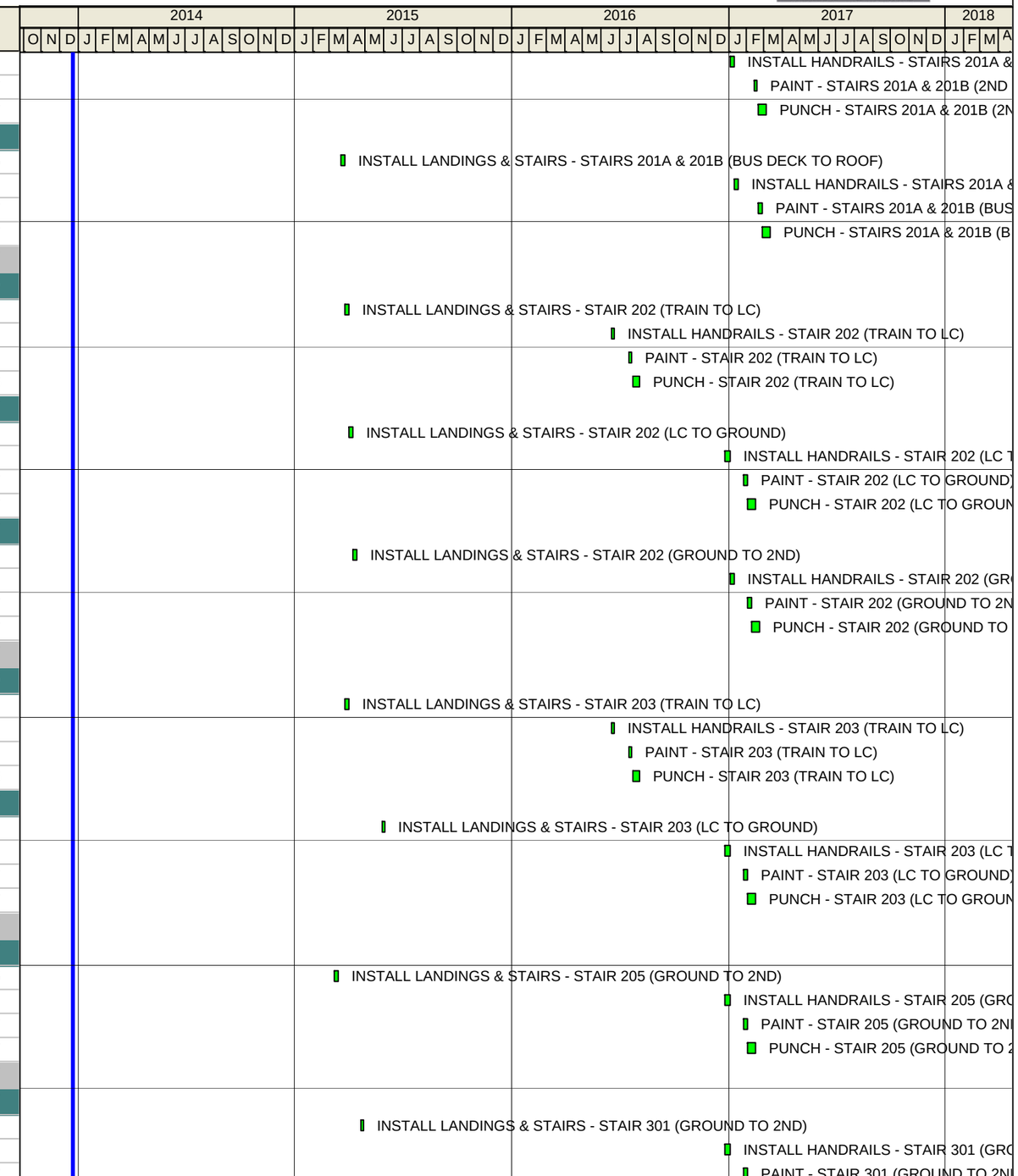
TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
ST-104400	INSTALL HANDRAILS - STAIRS 201A & 201B (2ND TO BUS DECK)	5d	04-Jan-17	10-Jan-17
ST-104600	PAINT - STAIRS 201A & 201B (2ND TO BUS DECK)	5d	13-Feb-17	17-Feb-17
ST-104700	PUNCH - STAIRS 201A & 201B (2ND TO BUS DECK)	10d	21-Feb-17	06-Mar-17
STAIRS 201A & 201B - BUS DECK TO ROOF PARK		499d	20-Mar-15	13-Mar-17
ST-105000	INSTALL LANDINGS & STAIRS - STAIRS 201A & 201B (BUS DECK TO ROOF)	5d	20-Mar-15	26-Mar-15
ST-105100	INSTALL HANDRAILS - STAIRS 201A & 201B (BUS DECK TO ROOF)	5d	11-Jan-17	17-Jan-17
ST-105300	PAINT - STAIRS 201A & 201B (BUS DECK TO ROOF)	5d	21-Feb-17	27-Feb-17
ST-105400	PUNCH - STAIRS 201A & 201B (BUS DECK TO ROOF)	10d	28-Feb-17	13-Mar-17
STAIR 202 - LINES 1.4-2 / D.4-E (TRAIN PLATFORM TO 2ND LEVEL)		482d	27-Mar-15	23-Feb-17
STAIR 202 - TRAIN PLATFORM TO LOWER CONCOURSE		345d	27-Mar-15	05-Aug-16
ST-120750	INSTALL LANDINGS & STAIRS - STAIR 202 (TRAIN TO LC)	5d	27-Mar-15	02-Apr-15
ST-120760	INSTALL HANDRAILS - STAIR 202 (TRAIN TO LC)	5d	17-Jun-16	23-Jun-16
ST-120770	PAINT - STAIR 202 (TRAIN TO LC)	5d	18-Jul-16	22-Jul-16
ST-120780	PUNCH - STAIR 202 (TRAIN TO LC)	10d	25-Jul-16	05-Aug-16
STAIR 202 - LOWER CONCOURSE TO GROUND		472d	03-Apr-15	15-Feb-17
ST-120790	INSTALL LANDINGS & STAIRS - STAIR 202 (LC TO GROUND)	5d	03-Apr-15	09-Apr-15
ST-120800	INSTALL HANDRAILS - STAIR 202 (LC TO GROUND)	5d	27-Dec-16	03-Jan-17
ST-120810	PAINT - STAIR 202 (LC TO GROUND)	5d	26-Jan-17	01-Feb-17
ST-120820	PUNCH - STAIR 202 (LC TO GROUND)	10d	02-Feb-17	15-Feb-17
STAIR 202 - GROUND TO 2ND LEVEL		472d	10-Apr-15	23-Feb-17
ST-100100	INSTALL LANDINGS & STAIRS - STAIR 202 (GROUND TO 2ND)	5d	10-Apr-15	16-Apr-15
ST-100200	INSTALL HANDRAILS - STAIR 202 (GROUND TO 2ND)	5d	04-Jan-17	10-Jan-17
ST-100500	PAINT - STAIR 202 (GROUND TO 2ND)	5d	02-Feb-17	08-Feb-17
ST-100600	PUNCH - STAIR 202 (GROUND TO 2ND)	10d	09-Feb-17	23-Feb-17
STAIR 203 - LINES 4-5 / B-D (TRAIN PLATFORM TO GROUND)		477d	27-Mar-15	15-Feb-17
STAIR 203 - TRAIN PLATFORM TO LOWER CONCOURSE		345d	27-Mar-15	05-Aug-16
ST-100800	INSTALL LANDINGS & STAIRS - STAIR 203 (TRAIN TO LC)	5d	27-Mar-15	02-Apr-15
ST-100900	INSTALL HANDRAILS - STAIR 203 (TRAIN TO LC)	5d	17-Jun-16	23-Jun-16
ST-101100	PAINT - STAIR 203 (TRAIN TO LC)	5d	18-Jul-16	22-Jul-16
ST-101200	PUNCH - STAIR 203 (TRAIN TO LC)	10d	25-Jul-16	05-Aug-16
STAIR 203 - LOWER CONCOURSE TO GROUND		434d	28-May-15	15-Feb-17
ST-120710	INSTALL LANDINGS & STAIRS - STAIR 203 (LC TO GROUND)	5d	28-May-15	03-Jun-15
ST-120720	INSTALL HANDRAILS - STAIR 203 (LC TO GROUND)	5d	27-Dec-16	03-Jan-17
ST-120730	PAINT - STAIR 203 (LC TO GROUND)	5d	26-Jan-17	01-Feb-17
ST-120740	PUNCH - STAIR 203 (LC TO GROUND)	10d	02-Feb-17	15-Feb-17
STAIR 205 - LINES 2-3 / D.4-F (GROUND TO 2ND LEVEL)		490d	10-Mar-15	15-Feb-17
STAIR 205 - GROUND TO 2ND LEVEL		490d	10-Mar-15	15-Feb-17
ST-116700	INSTALL LANDINGS & STAIRS - STAIR 205 (GROUND TO 2ND)	5d	10-Mar-15	16-Mar-15
ST-116800	INSTALL HANDRAILS - STAIR 205 (GROUND TO 2ND)	5d	27-Dec-16	03-Jan-17
ST-116900	PAINT - STAIR 205 (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17
ST-117000	PUNCH - STAIR 205 (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIR 301 - LINES 6-7 / D-E.2 (GROUND TO ROOF PARK)		476d	22-Apr-15	13-Mar-17
STAIR 301 - GROUND TO 2ND LEVEL		459d	22-Apr-15	15-Feb-17
ST-101500	INSTALL LANDINGS & STAIRS - STAIR 301 (GROUND TO 2ND)	5d	22-Apr-15	28-Apr-15
ST-101600	INSTALL HANDRAILS - STAIR 301 (GROUND TO 2ND)	5d	27-Dec-16	03-Jan-17
ST-101800	PAINT - STAIR 301 (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17



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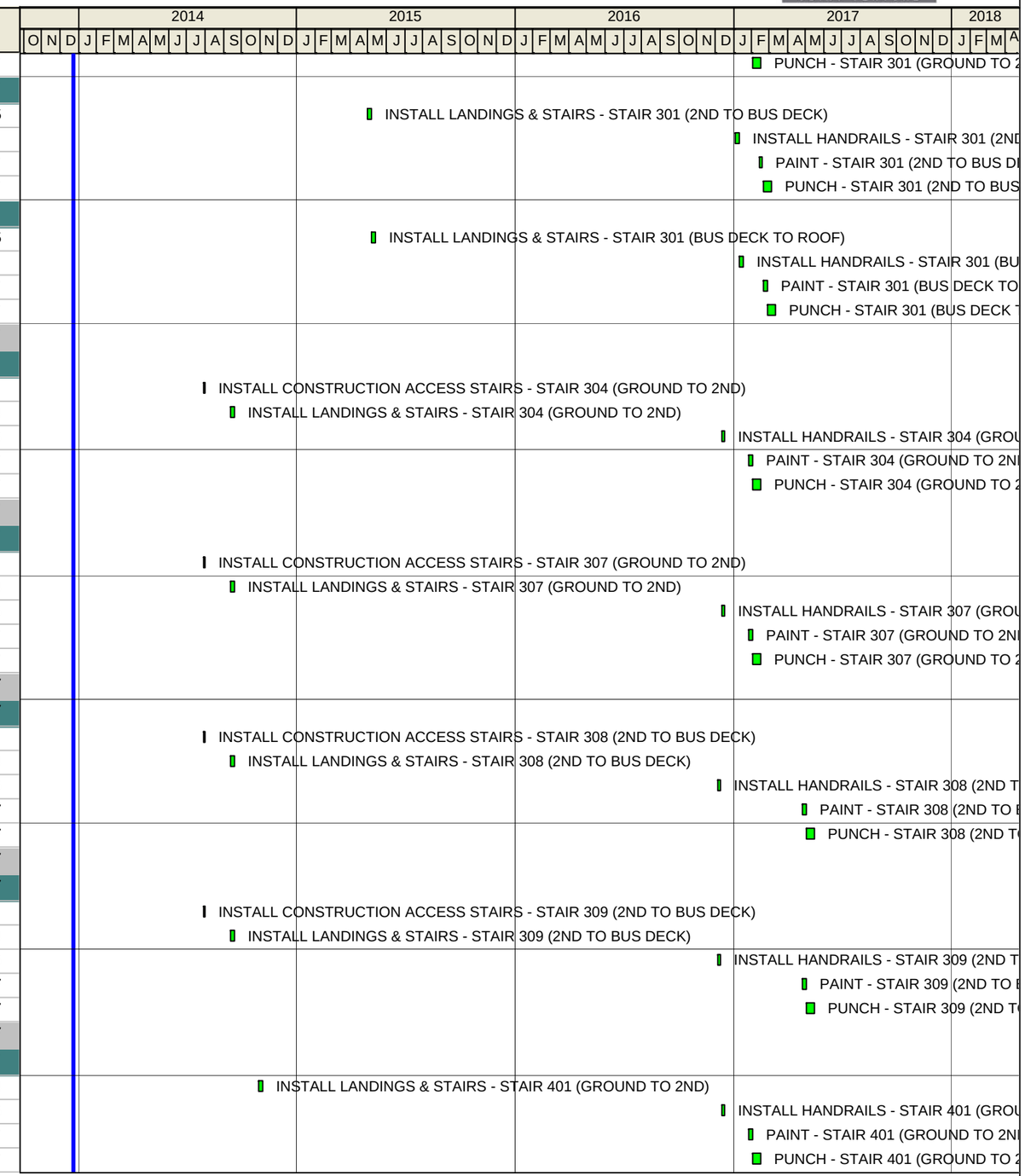
TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
ST-101900	PUNCH - STAIR 301 (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIR 301 - 2ND LEVEL TO BUS DECK		466d	29-Apr-15	06-Mar-17
ST-102200	INSTALL LANDINGS & STAIRS - STAIR 301 (2ND TO BUS DECK)	5d	29-Apr-15	05-May-15
ST-102300	INSTALL HANDRAILS - STAIR 301 (2ND TO BUS DECK)	5d	04-Jan-17	10-Jan-17
ST-102500	PAINT - STAIR 301 (2ND TO BUS DECK)	5d	13-Feb-17	17-Feb-17
ST-102600	PUNCH - STAIR 301 (2ND TO BUS DECK)	10d	21-Feb-17	06-Mar-17
STAIR 301 - BUS DECK TO ROOF PARK		466d	06-May-15	13-Mar-17
ST-102900	INSTALL LANDINGS & STAIRS - STAIR 301 (BUS DECK TO ROOF)	5d	06-May-15	12-May-15
ST-103000	INSTALL HANDRAILS - STAIR 301 (BUS DECK TO ROOF)	5d	11-Jan-17	17-Jan-17
ST-103200	PAINT - STAIR 301 (BUS DECK TO ROOF)	5d	21-Feb-17	27-Feb-17
ST-103300	PUNCH - STAIR 301 (BUS DECK TO ROOF)	10d	28-Feb-17	13-Mar-17
STAIR 304 - LINES 10-11 / C-D (GROUND TO 2ND LEVEL)		631d	30-Jul-14	15-Feb-17
STAIR 304 - GROUND TO 2ND LEVEL		631d	30-Jul-14	15-Feb-17
ST-115850	INSTALL CONSTRUCTION ACCESS STAIRS - STAIR 304 (GROUND TO 2ND)	2d	30-Jul-14	31-Jul-14
ST-115900	INSTALL LANDINGS & STAIRS - STAIR 304 (GROUND TO 2ND)	5d	12-Sep-14	18-Sep-14
ST-116000	INSTALL HANDRAILS - STAIR 304 (GROUND TO 2ND)	5d	12-Dec-16	16-Dec-16
ST-116100	PAINT - STAIR 304 (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17
ST-116200	PUNCH - STAIR 304 (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIR 307 - LINES 10-11 / D.8-E.2 (GROUND TO 2ND LEVEL)		631d	30-Jul-14	15-Feb-17
STAIR 307 - GROUND TO 2ND LEVEL		631d	30-Jul-14	15-Feb-17
ST-117050	INSTALL CONSTRUCTION ACCESS STAIRS - STAIR 307 (GROUND TO 2ND)	2d	30-Jul-14	31-Jul-14
ST-117100	INSTALL LANDINGS & STAIRS - STAIR 307 (GROUND TO 2ND)	5d	12-Sep-14	18-Sep-14
ST-117200	INSTALL HANDRAILS - STAIR 307 (GROUND TO 2ND)	5d	12-Dec-16	16-Dec-16
ST-117300	PAINT - STAIR 307 (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17
ST-117400	PUNCH - STAIR 307 (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIR 308 - LINES 10-11 / D-D.4 (2ND LEVEL TO BUS DECK)		694d	30-Jul-14	16-May-17
STAIR 308 - 2ND LEVEL TO BUS DECK		694d	30-Jul-14	16-May-17
ST-117510	INSTALL CONSTRUCTION ACCESS STAIRS - STAIR 308 (2ND TO BUS DECK)	2d	30-Jul-14	31-Jul-14
ST-117500	INSTALL LANDINGS & STAIRS - STAIR 308 (2ND TO BUS DECK)	5d	12-Sep-14	18-Sep-14
ST-117600	INSTALL HANDRAILS - STAIR 308 (2ND TO BUS DECK)	5d	05-Dec-16	09-Dec-16
ST-117700	PAINT - STAIR 308 (2ND TO BUS DECK)	5d	26-Apr-17	02-May-17
ST-117800	PUNCH - STAIR 308 (2ND TO BUS DECK)	10d	03-May-17	16-May-17
STAIR 309 - LINES 10-11 / E.6-F (2ND LEVEL TO BUS DECK)		694d	30-Jul-14	16-May-17
STAIR 309 - 2ND LEVEL TO BUS DECK		694d	30-Jul-14	16-May-17
ST-117950	INSTALL CONSTRUCTION ACCESS STAIRS - STAIR 309 (2ND TO BUS DECK)	2d	30-Jul-14	31-Jul-14
ST-117900	INSTALL LANDINGS & STAIRS - STAIR 309 (2ND TO BUS DECK)	5d	12-Sep-14	18-Sep-14
ST-118000	INSTALL HANDRAILS - STAIR 309 (2ND TO BUS DECK)	5d	05-Dec-16	09-Dec-16
ST-118100	PAINT - STAIR 309 (2ND TO BUS DECK)	5d	26-Apr-17	02-May-17
ST-118200	PUNCH - STAIR 309 (2ND TO BUS DECK)	10d	03-May-17	16-May-17
STAIR 401 - LINES 15-16 / E-E.6 (GROUND TO ROOF PARK)		646d	29-Oct-14	23-May-17
STAIR 401 - GROUND TO 2ND LEVEL		578d	29-Oct-14	15-Feb-17
ST-107800	INSTALL LANDINGS & STAIRS - STAIR 401 (GROUND TO 2ND)	5d	29-Oct-14	04-Nov-14
ST-107900	INSTALL HANDRAILS - STAIR 401 (GROUND TO 2ND)	5d	12-Dec-16	16-Dec-16
ST-108100	PAINT - STAIR 401 (GROUND TO 2ND)	5d	26-Jan-17	01-Feb-17
ST-108200	PUNCH - STAIR 401 (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17



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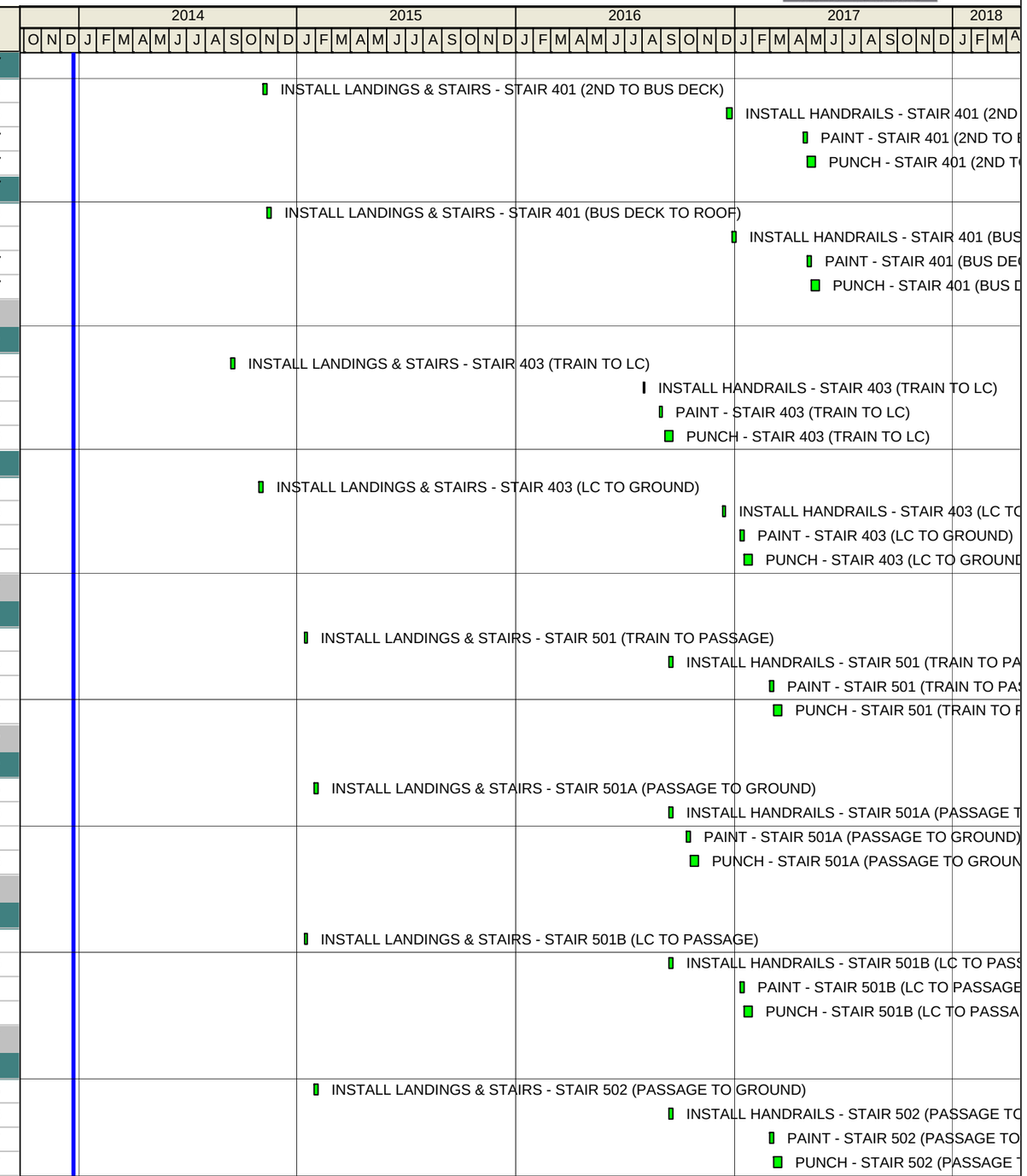
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
STAIR 401 - 2ND LEVEL TO BUS DECK		636d	05-Nov-14	16-May-17
ST-108500	INSTALL LANDINGS & STAIRS - STAIR 401 (2ND TO BUS DECK)	5d	05-Nov-14	11-Nov-14
ST-108600	INSTALL HANDRAILS - STAIR 401 (2ND TO BUS DECK)	5d	19-Dec-16	27-Dec-16
ST-108800	PAINT - STAIR 401 (2ND TO BUS DECK)	5d	26-Apr-17	02-May-17
ST-108900	PUNCH - STAIR 401 (2ND TO BUS DECK)	10d	03-May-17	16-May-17
STAIR 401 - BUS DECK TO ROOF PARK		636d	12-Nov-14	23-May-17
ST-109200	INSTALL LANDINGS & STAIRS - STAIR 401 (BUS DECK TO ROOF)	5d	12-Nov-14	18-Nov-14
ST-109300	INSTALL HANDRAILS - STAIR 401 (BUS DECK TO ROOF)	5d	28-Dec-16	04-Jan-17
ST-109500	PAINT - STAIR 401 (BUS DECK TO ROOF)	5d	03-May-17	09-May-17
ST-109600	PUNCH - STAIR 401 (BUS DECK TO ROOF)	10d	10-May-17	23-May-17
STAIR 403 - LINES 15-16 / D.4-E (TRAIN PLATFORM TO GROUND)		600d	12-Sep-14	31-Jan-17
STAIR 403 - TRAIN PLATFORM TO LOWER CONCOURSE		509d	12-Sep-14	19-Sep-16
ST-118300	INSTALL LANDINGS & STAIRS - STAIR 403 (TRAIN TO LC)	5d	12-Sep-14	18-Sep-14
ST-118400	INSTALL HANDRAILS - STAIR 403 (TRAIN TO LC)	5d	01-Aug-16	05-Aug-16
ST-118500	PAINT - STAIR 403 (TRAIN TO LC)	5d	29-Aug-16	02-Sep-16
ST-118600	PUNCH - STAIR 403 (TRAIN TO LC)	10d	06-Sep-16	19-Sep-16
STAIR 403 - LOWER CONCOURSE TO GROUND		567d	29-Oct-14	31-Jan-17
ST-118700	INSTALL LANDINGS & STAIRS - STAIR 403 (LC TO GROUND)	5d	29-Oct-14	04-Nov-14
ST-118800	INSTALL HANDRAILS - STAIR 403 (LC TO GROUND)	5d	12-Dec-16	16-Dec-16
ST-118900	PAINT - STAIR 403 (LC TO GROUND)	5d	11-Jan-17	17-Jan-17
ST-119000	PUNCH - STAIR 403 (LC TO GROUND)	10d	18-Jan-17	31-Jan-17
STAIR 501 - LINES 20-21 / C.3-D (TRAIN TO PASSAGE)		552d	13-Jan-15	21-Mar-17
STAIR 501 - TRAIN PLATFORM TO PASSAGE		552d	13-Jan-15	21-Mar-17
ST-119100	INSTALL LANDINGS & STAIRS - STAIR 501 (TRAIN TO PASSAGE)	5d	13-Jan-15	19-Jan-15
ST-119200	INSTALL HANDRAILS - STAIR 501 (TRAIN TO PASSAGE)	5d	14-Sep-16	20-Sep-16
ST-119300	PAINT - STAIR 501 (TRAIN TO PASSAGE)	5d	01-Mar-17	07-Mar-17
ST-119400	PUNCH - STAIR 501 (TRAIN TO PASSAGE)	10d	08-Mar-17	21-Mar-17
STAIR 501A - LINE 20.1 (PASSAGE TO GROUND)		446d	30-Jan-15	02-Nov-16
STAIR 501A - PASSAGE TO GROUND		446d	30-Jan-15	02-Nov-16
ST-115100	INSTALL LANDINGS & STAIRS - STAIR 501A (PASSAGE TO GROUND)	5d	30-Jan-15	05-Feb-15
ST-115200	INSTALL HANDRAILS - STAIR 501A (PASSAGE TO GROUND)	5d	14-Sep-16	20-Sep-16
ST-115300	PAINT - STAIR 501A (PASSAGE TO GROUND)	5d	13-Oct-16	19-Oct-16
ST-115400	PUNCH - STAIR 501A (PASSAGE TO GROUND)	10d	20-Oct-16	02-Nov-16
STAIR 501B - LINES 24-25 / B-C (LOWER CONCOURSE TO PASSAGE)		518d	13-Jan-15	31-Jan-17
STAIR 501B - LOWER CONCOURSE TO PASSAGE		518d	13-Jan-15	31-Jan-17
ST-115500	INSTALL LANDINGS & STAIRS - STAIR 501B (LC TO PASSAGE)	5d	13-Jan-15	19-Jan-15
ST-115600	INSTALL HANDRAILS - STAIR 501B (LC TO PASSAGE)	5d	14-Sep-16	20-Sep-16
ST-115700	PAINT - STAIR 501B (LC TO PASSAGE)	5d	11-Jan-17	17-Jan-17
ST-115800	PUNCH - STAIR 501B (LC TO PASSAGE)	10d	18-Jan-17	31-Jan-17
STAIR 502 - LINES 20-21 / F-F.7 (PASSAGE TO GROUND)		539d	30-Jan-15	21-Mar-17
STAIR 502 - PASSAGE TO GROUND		539d	30-Jan-15	21-Mar-17
ST-110600	INSTALL LANDINGS & STAIRS - STAIR 502 (PASSAGE TO GROUND)	5d	30-Jan-15	05-Feb-15
ST-110700	INSTALL HANDRAILS - STAIR 502 (PASSAGE TO GROUND)	5d	14-Sep-16	20-Sep-16
ST-110900	PAINT - STAIR 502 (PASSAGE TO GROUND)	5d	01-Mar-17	07-Mar-17
ST-111000	PUNCH - STAIR 502 (PASSAGE TO GROUND)	10d	08-Mar-17	21-Mar-17



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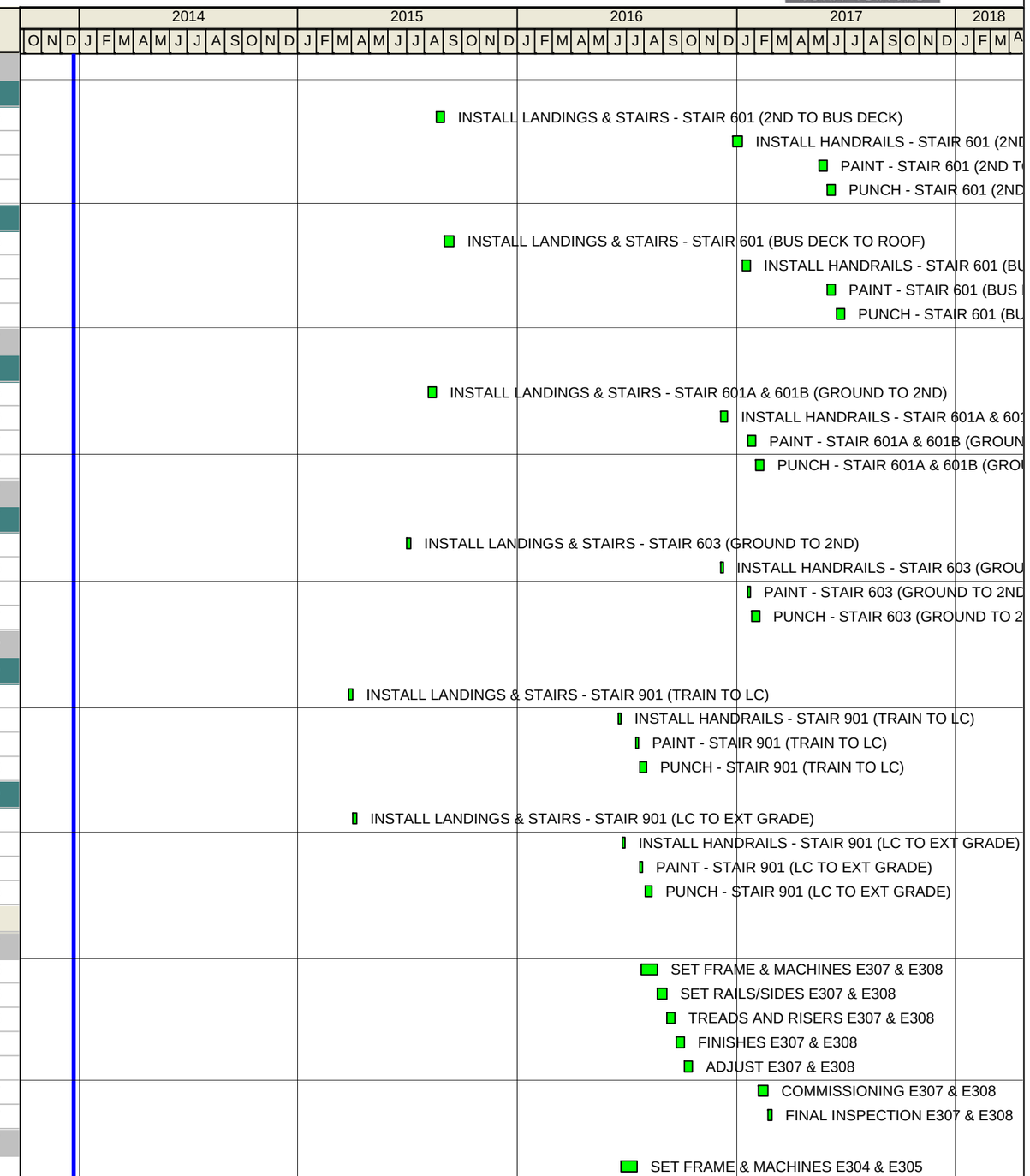
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
STAIR 601 - LINES 30-31 / D.4-F.7 (2ND LEVEL TO ROOF PARK)		469d	20-Aug-15	29-Jun-17
STAIR 601 - 2ND LEVEL TO BUS DECK		459d	20-Aug-15	15-Jun-17
ST-112700	INSTALL LANDINGS & STAIRS - STAIR 601 (2ND TO BUS DECK)	10d	20-Aug-15	02-Sep-15
ST-112800	INSTALL HANDRAILS - STAIR 601 (2ND TO BUS DECK)	10d	27-Dec-16	10-Jan-17
ST-113000	PAINT - STAIR 601 (2ND TO BUS DECK)	10d	18-May-17	01-Jun-17
ST-113100	PUNCH - STAIR 601 (2ND TO BUS DECK)	10d	02-Jun-17	15-Jun-17
STAIR 601 - BUS DECK TO ROOF PARK		459d	03-Sep-15	29-Jun-17
ST-113400	INSTALL LANDINGS & STAIRS - STAIR 601 (BUS DECK TO ROOF)	10d	03-Sep-15	17-Sep-15
ST-113500	INSTALL HANDRAILS - STAIR 601 (BUS DECK TO ROOF)	10d	11-Jan-17	24-Jan-17
ST-113700	PAINT - STAIR 601 (BUS DECK TO ROOF)	10d	02-Jun-17	15-Jun-17
ST-113800	PUNCH - STAIR 601 (BUS DECK TO ROOF)	10d	16-Jun-17	29-Jun-17
STAIRS 601A & 601B - LINES 30-31 / D.4-F.7 (GROUND TO 2ND LEVEL)		385d	06-Aug-15	15-Feb-17
STAIRS 601A & 601B - GROUND TO 2ND LEVEL		385d	06-Aug-15	15-Feb-17
ST-112000	INSTALL LANDINGS & STAIRS - STAIR 601A & 601B (GROUND TO 2ND)	10d	06-Aug-15	19-Aug-15
ST-112100	INSTALL HANDRAILS - STAIR 601A & 601B (GROUND TO 2ND)	10d	05-Dec-16	16-Dec-16
ST-112300	PAINT - STAIR 601A & 601B (GROUND TO 2ND)	10d	19-Jan-17	01-Feb-17
ST-112400	PUNCH - STAIR 601A & 601B (GROUND TO 2ND)	10d	02-Feb-17	15-Feb-17
STAIR 603 - LINES 28-29 / D.4-E (GROUND TO 2ND LEVEL)		404d	02-Jul-15	08-Feb-17
STAIR 603 - GROUND TO 2ND LEVEL		404d	02-Jul-15	08-Feb-17
ST-111300	INSTALL LANDINGS & STAIRS - STAIR 603 (GROUND TO 2ND)	5d	02-Jul-15	09-Jul-15
ST-111400	INSTALL HANDRAILS - STAIR 603 (GROUND TO 2ND)	5d	05-Dec-16	09-Dec-16
ST-111600	PAINT - STAIR 603 (GROUND TO 2ND)	5d	19-Jan-17	25-Jan-17
ST-111700	PUNCH - STAIR 603 (GROUND TO 2ND)	10d	26-Jan-17	08-Feb-17
STAIR 901 - LINE 3 / V (TRAIN PLATFORM TO EXTERIOR GRADE)		350d	27-Mar-15	12-Aug-16
STAIR 901 - TRAIN PLATFORM TO LOWER CONCOURSE		345d	27-Mar-15	05-Aug-16
ST-120000	INSTALL LANDINGS & STAIRS - STAIR 901 (TRAIN TO LC)	5d	27-Mar-15	02-Apr-15
ST-120100	INSTALL HANDRAILS - STAIR 901 (TRAIN TO LC)	5d	17-Jun-16	23-Jun-16
ST-120200	PAINT - STAIR 901 (TRAIN TO LC)	5d	18-Jul-16	22-Jul-16
ST-120300	PUNCH - STAIR 901 (TRAIN TO LC)	10d	25-Jul-16	05-Aug-16
STAIR 901 - LOWER CONCOURSE TO EXTERIOR GRADE		345d	03-Apr-15	12-Aug-16
ST-120400	INSTALL LANDINGS & STAIRS - STAIR 901 (LC TO EXT GRADE)	5d	03-Apr-15	09-Apr-15
ST-120500	INSTALL HANDRAILS - STAIR 901 (LC TO EXT GRADE)	5d	24-Jun-16	30-Jun-16
ST-120600	PAINT - STAIR 901 (LC TO EXT GRADE)	5d	25-Jul-16	29-Jul-16
ST-120700	PUNCH - STAIR 901 (LC TO EXT GRADE)	10d	01-Aug-16	12-Aug-16
ESCALATORS		333d	24-Feb-16	22-Jun-17
E307 & E308 - BETWEEN LINES 6 & 7 (L2 TO BUS)		147d	26-Jul-16	28-Feb-17
ES-100100	SET FRAME & MACHINES E307 & E308	20d	26-Jul-16	22-Aug-16
ES-100200	SET RAILS/SIDES E307 & E308	10d	23-Aug-16	07-Sep-16
ES-100300	TREADS AND RISERS E307 & E308	10d	08-Sep-16	21-Sep-16
ES-100400	FINISHES E307 & E308	10d	22-Sep-16	05-Oct-16
ES-100500	ADJUST E307 & E308	10d	06-Oct-16	20-Oct-16
ES-100600	COMMISSIONING E307 & E308	10d	07-Feb-17	21-Feb-17
ES-100700	FINAL INSPECTION E307 & E308	5d	22-Feb-17	28-Feb-17
E304 & E305 - BETWEEN LINES 10 & 11 (GROUND TO L2)		180d	22-Jun-16	14-Mar-17
ES-102000	SET FRAME & MACHINES E304 & E305	20d	22-Jun-16	20-Jul-16



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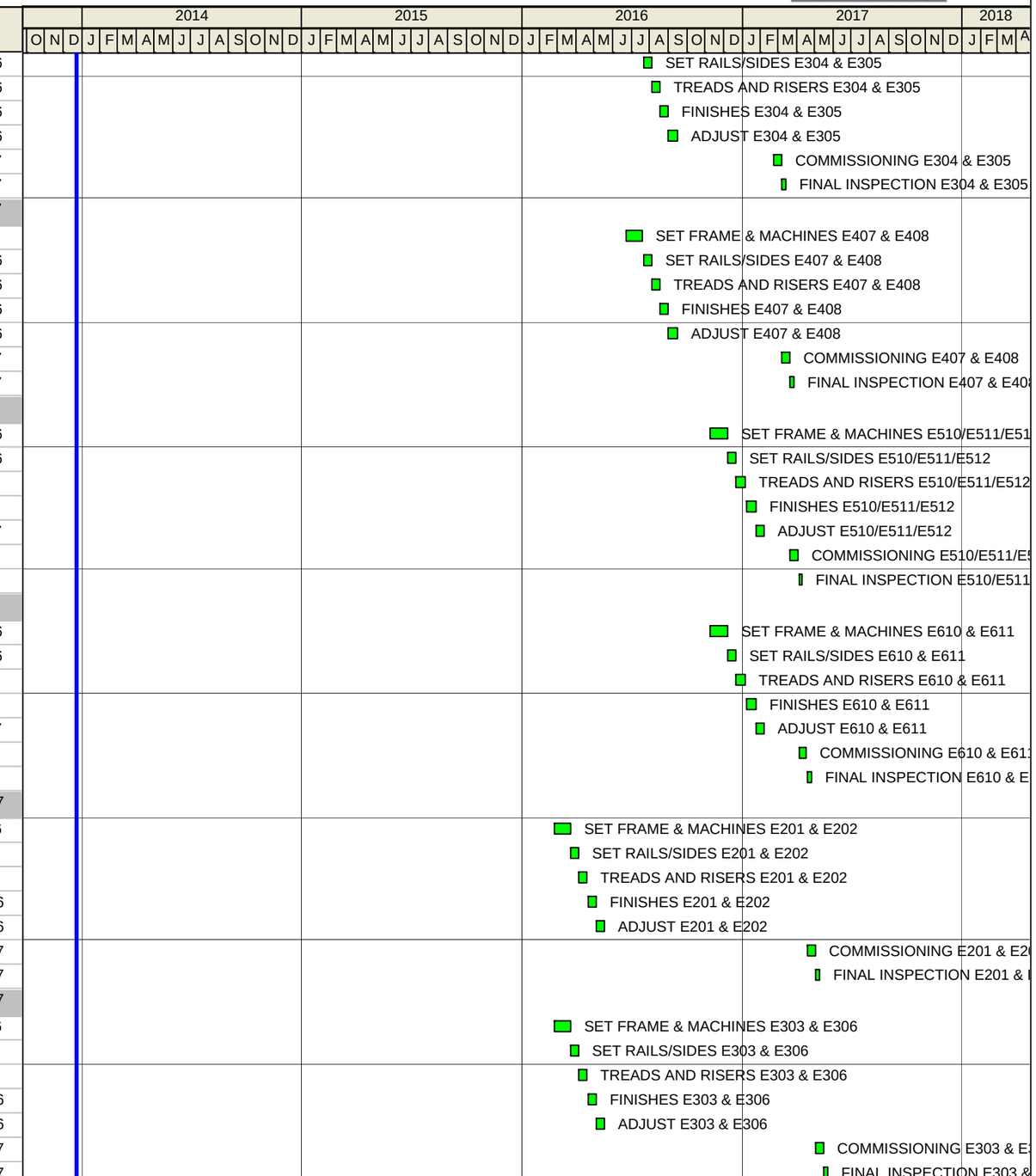
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
ES-102100	SET RAILS/SIDES E304 & E305	10d	21-Jul-16	03-Aug-16
ES-102200	TREADS AND RISERS E304 & E305	10d	04-Aug-16	17-Aug-16
ES-102300	FINISHES E304 & E305	10d	18-Aug-16	31-Aug-16
ES-102400	ADJUST E304 & E305	10d	01-Sep-16	16-Sep-16
ES-102500	COMMISSIONING E304 & E305	10d	22-Feb-17	07-Mar-17
ES-102600	FINAL INSPECTION E304 & E305	5d	08-Mar-17	14-Mar-17
E407 & E408 - BETWEEN LINES 18 & 19 (BUS TO ROOF)		190d	22-Jun-16	28-Mar-17
ES-102900	SET FRAME & MACHINES E407 & E408	20d	22-Jun-16	20-Jul-16
ES-103000	SET RAILS/SIDES E407 & E408	10d	21-Jul-16	03-Aug-16
ES-103100	TREADS AND RISERS E407 & E408	10d	04-Aug-16	17-Aug-16
ES-103200	FINISHES E407 & E408	10d	18-Aug-16	31-Aug-16
ES-103300	ADJUST E407 & E408	10d	01-Sep-16	16-Sep-16
ES-103400	COMMISSIONING E407 & E408	10d	08-Mar-17	21-Mar-17
ES-103500	FINAL INSPECTION E407 & E408	5d	22-Mar-17	28-Mar-17
E510, E511 & E512 - BETWEEN LINES 20 & 22 (GROUND TO BUS)		105d	08-Nov-16	11-Apr-17
ES-103800	SET FRAME & MACHINES E510/E511/E512	20d	08-Nov-16	07-Dec-16
ES-103900	SET RAILS/SIDES E510/E511/E512	10d	08-Dec-16	21-Dec-16
ES-104000	TREADS AND RISERS E510/E511/E512	10d	22-Dec-16	06-Jan-17
ES-104100	FINISHES E510/E511/E512	10d	09-Jan-17	23-Jan-17
ES-104200	ADJUST E510/E511/E512	10d	24-Jan-17	06-Feb-17
ES-104300	COMMISSIONING E510/E511/E512	10d	22-Mar-17	04-Apr-17
ES-104400	FINAL INSPECTION E510/E511/E512	5d	05-Apr-17	11-Apr-17
E610 & E611 - BETWEEN LINES 27 & 29 (GROUND TO BUS)		115d	08-Nov-16	25-Apr-17
ES-104700	SET FRAME & MACHINES E610 & E611	20d	08-Nov-16	07-Dec-16
ES-104800	SET RAILS/SIDES E610 & E611	10d	08-Dec-16	21-Dec-16
ES-104900	TREADS AND RISERS E610 & E611	10d	22-Dec-16	06-Jan-17
ES-105000	FINISHES E610 & E611	10d	09-Jan-17	23-Jan-17
ES-105100	ADJUST E610 & E611	10d	24-Jan-17	06-Feb-17
ES-105200	COMMISSIONING E610 & E611	10d	05-Apr-17	18-Apr-17
ES-105300	FINAL INSPECTION E610 & E611	5d	19-Apr-17	25-Apr-17
E201 & E202 - BETWEEN 3 & 4 LINES (GROUND TO L2)		303d	24-Feb-16	09-May-17
ES-106000	SET FRAME & MACHINES E201 & E202	20d	24-Feb-16	22-Mar-16
ES-106100	SET RAILS/SIDES E201 & E202	10d	23-Mar-16	05-Apr-16
ES-106200	TREADS AND RISERS E201 & E202	10d	06-Apr-16	19-Apr-16
ES-106300	FINISHES E201 & E202	10d	20-Apr-16	03-May-16
ES-106400	ADJUST E201 & E202	10d	04-May-16	17-May-16
ES-106500	COMMISSIONING E201 & E202	10d	19-Apr-17	02-May-17
ES-106600	FINAL INSPECTION E201 & E202	5d	03-May-17	09-May-17
E303 & E306 - BETWEEN LINES 7 & 8 (GROUND TO L2)		313d	24-Feb-16	23-May-17
ES-107000	SET FRAME & MACHINES E303 & E306	20d	24-Feb-16	22-Mar-16
ES-107100	SET RAILS/SIDES E303 & E306	10d	23-Mar-16	05-Apr-16
ES-107200	TREADS AND RISERS E303 & E306	10d	06-Apr-16	19-Apr-16
ES-107300	FINISHES E303 & E306	10d	20-Apr-16	03-May-16
ES-107400	ADJUST E303 & E306	10d	04-May-16	17-May-16
ES-107500	COMMISSIONING E303 & E306	10d	03-May-17	16-May-17
ES-107600	FINAL INSPECTION E303 & E306	5d	17-May-17	23-May-17



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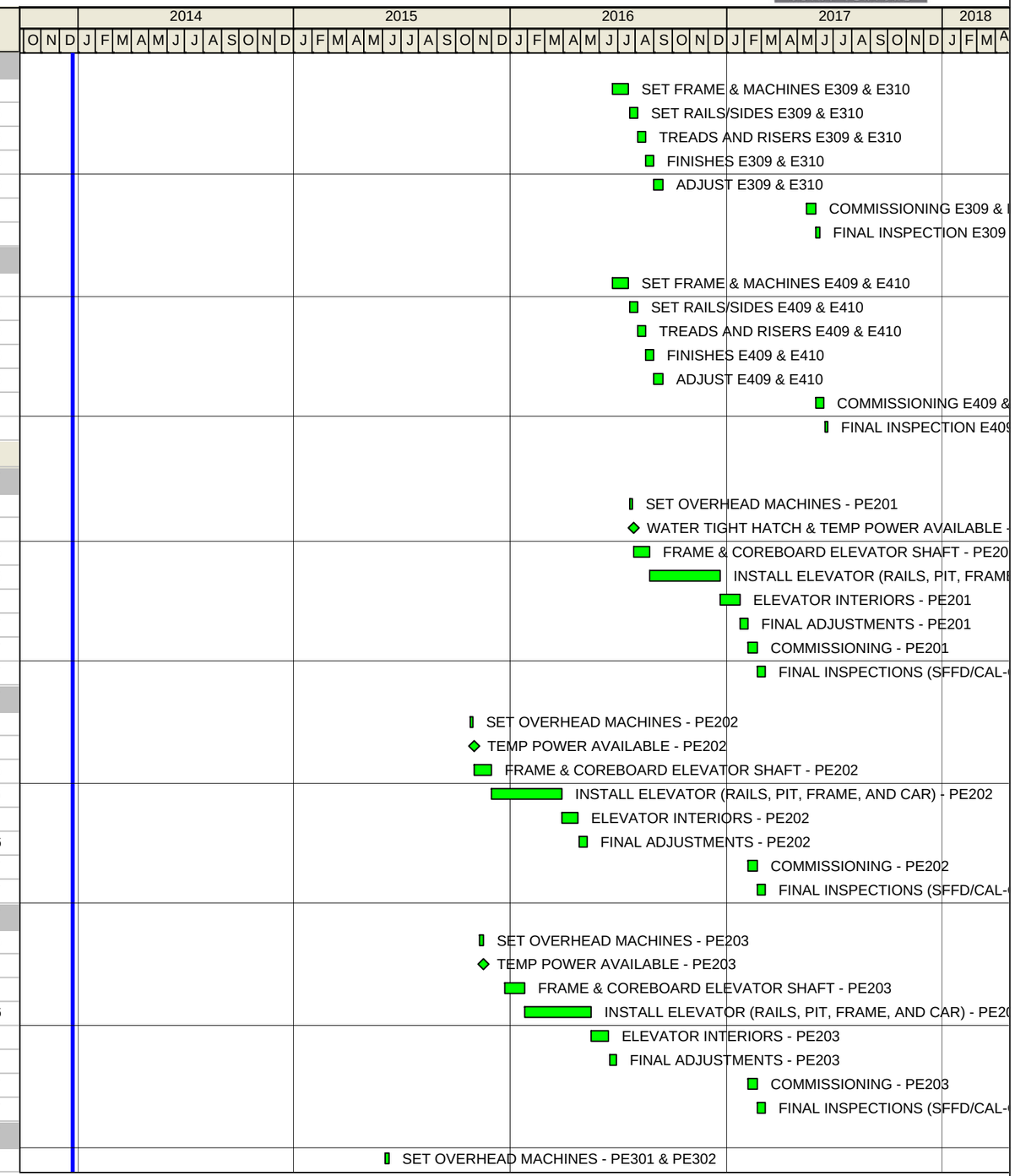
User: wterry
Data Date: 23-Dec-13

TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
E309 & E310 - BETWEEN LINES 10 & 11 (L2 TO BUS)		240d	22-Jun-16	08-Jun-17
ES-110000	SET FRAME & MACHINES E309 & E310	20d	22-Jun-16	20-Jul-16
ES-110100	SET RAILS/SIDES E309 & E310	10d	21-Jul-16	03-Aug-16
ES-110200	TREADS AND RISERS E309 & E310	10d	04-Aug-16	17-Aug-16
ES-110300	FINISHES E309 & E310	10d	18-Aug-16	31-Aug-16
ES-110400	ADJUST E309 & E310	10d	01-Sep-16	16-Sep-16
ES-110500	COMMISSIONING E309 & E310	10d	17-May-17	01-Jun-17
ES-110600	FINAL INSPECTION E309 & E310	5d	02-Jun-17	08-Jun-17
E409 & E410 - BETWEEN LINES 15 & 16 (GROUND TO L2)		250d	22-Jun-16	22-Jun-17
ES-112000	SET FRAME & MACHINES E409 & E410	20d	22-Jun-16	20-Jul-16
ES-112100	SET RAILS/SIDES E409 & E410	10d	21-Jul-16	03-Aug-16
ES-112200	TREADS AND RISERS E409 & E410	10d	04-Aug-16	17-Aug-16
ES-112300	FINISHES E409 & E410	10d	18-Aug-16	31-Aug-16
ES-112400	ADJUST E409 & E410	10d	01-Sep-16	16-Sep-16
ES-112500	COMMISSIONING E409 & E410	10d	02-Jun-17	15-Jun-17
ES-112600	FINAL INSPECTION E409 & E410	5d	16-Jun-17	22-Jun-17
ELEVATORS		582d	04-Jun-15	05-Oct-17
ELEVATOR PE201 (BUILDING LINE 1) (GROUND & PARK)		155d	21-Jul-16	07-Mar-17
PE-104000	SET OVERHEAD MACHINES - PE201	5d	21-Jul-16	27-Jul-16
PE-104100	WATER TIGHT HATCH & TEMP POWER AVAILABLE - PE201	0d	28-Jul-16	
PE-104800	FRAME & COREBOARD ELEVATOR SHAFT - PE201	20d	28-Jul-16	24-Aug-16
PE-104200	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE201	80d	25-Aug-16	21-Dec-16
PE-104210	ELEVATOR INTERIORS - PE201	20d	22-Dec-16	23-Jan-17
PE-104400	FINAL ADJUSTMENTS - PE201	10d	24-Jan-17	06-Feb-17
PE-104600	COMMISSIONING - PE201	10d	07-Feb-17	21-Feb-17
PE-104700	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE201	10d	22-Feb-17	07-Mar-17
ELEVATOR PE202 (BUILDING LINES 3 - 4) (GROUND & SECOND)		338d	26-Oct-15	07-Mar-17
PE-104810	SET OVERHEAD MACHINES - PE202	5d	26-Oct-15	30-Oct-15
PE-104820	TEMP POWER AVAILABLE - PE202	0d	02-Nov-15	
PE-104830	FRAME & COREBOARD ELEVATOR SHAFT - PE202	20d	02-Nov-15	01-Dec-15
PE-104840	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE202	80d	02-Dec-15	29-Mar-16
PE-104850	ELEVATOR INTERIORS - PE202	20d	30-Mar-16	26-Apr-16
PE-104860	FINAL ADJUSTMENTS - PE202	10d	27-Apr-16	10-May-16
PE-104870	COMMISSIONING - PE202	10d	07-Feb-17	21-Feb-17
PE-104880	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE202	10d	22-Feb-17	07-Mar-17
ELEVATOR PE203 (BUILDING LINE 1.4 - 2) (TRAIN TO GROUND)		326d	11-Nov-15	07-Mar-17
PE-104890	SET OVERHEAD MACHINES - PE203	5d	11-Nov-15	17-Nov-15
PE-104900	TEMP POWER AVAILABLE - PE203	0d	18-Nov-15	
PE-104910	FRAME & COREBOARD ELEVATOR SHAFT - PE203	20d	23-Dec-15	25-Jan-16
PE-104920	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE203	80d	26-Jan-16	17-May-16
PE-104930	ELEVATOR INTERIORS - PE203	20d	18-May-16	16-Jun-16
PE-104940	FINAL ADJUSTMENTS - PE203	10d	17-Jun-16	30-Jun-16
PE-104950	COMMISSIONING - PE203	10d	07-Feb-17	21-Feb-17
PE-104960	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE203	10d	22-Feb-17	07-Mar-17
ELEVATORS PE301 & PE302 (BUILDING LINES 8 - 9 (LC TO PARK)		436d	04-Jun-15	07-Mar-17
PE-100000	SET OVERHEAD MACHINES - PE301 & PE302	5d	04-Jun-15	10-Jun-15



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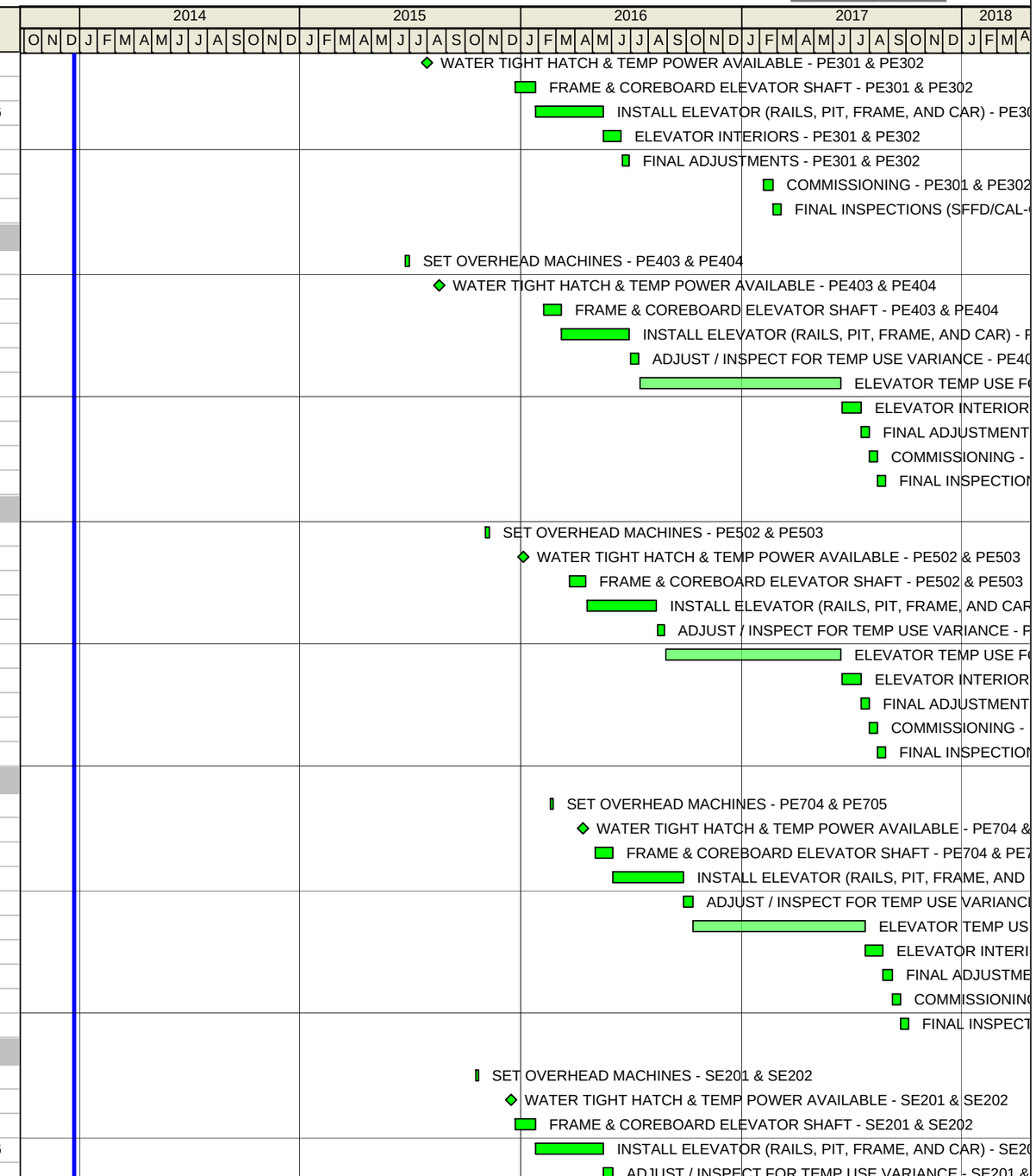
TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
PE-100100	WATER TIGHT HATCH & TEMP POWER AVAILABLE - PE301 & PE302	0d	31-Jul-15	
PE-100010	FRAME & COREBOARD ELEVATOR SHAFT - PE301 & PE302	20d	23-Dec-15	25-Jan-16
PE-100200	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE301 & PE302	80d	26-Jan-16	17-May-16
PE-100210	ELEVATOR INTERIORS - PE301 & PE302	20d	18-May-16	16-Jun-16
PE-100400	FINAL ADJUSTMENTS - PE301 & PE302	10d	17-Jun-16	30-Jun-16
PE-100600	COMMISSIONING - PE301 & PE302	10d	07-Feb-17	21-Feb-17
PE-100700	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE301 & PE302	10d	22-Feb-17	07-Mar-17
ELEVATORS PE403 & PE404 (BUILDING LINES 16 - 17) (LC TO PARK)		541d	25-Jun-15	28-Aug-17
PE-100800	SET OVERHEAD MACHINES - PE403 & PE404	5d	25-Jun-15	01-Jul-15
PE-100900	WATER TIGHT HATCH & TEMP POWER AVAILABLE - PE403 & PE404	0d	21-Aug-15	
PE-100810	FRAME & COREBOARD ELEVATOR SHAFT - PE403 & PE404	20d	09-Feb-16	08-Mar-16
PE-101000	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE403 & PE404	80d	09-Mar-16	30-Jun-16
PE-101100	ADJUST / INSPECT FOR TEMP USE VARIANCE - PE403 & PE404	10d	01-Jul-16	15-Jul-16
PE-101110	ELEVATOR TEMP USE FOR CONSTRUCTION - PE403 & PE404	228d	18-Jul-16	15-Jun-17
PE-101010	ELEVATOR INTERIORS - PE403 & PE404	20d	16-Jun-17	17-Jul-17
PE-101200	FINAL ADJUSTMENTS - PE403 & PE404	10d	18-Jul-17	31-Jul-17
PE-101400	COMMISSIONING - PE403 & PE404	10d	01-Aug-17	14-Aug-17
PE-101500	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE403 & PE404	10d	15-Aug-17	28-Aug-17
ELEVATORS PE502 & PE503 (BUILDING LINES 24 - 25) (LC TO PARK)		451d	04-Nov-15	28-Aug-17
PE-101600	SET OVERHEAD MACHINES - PE502 & PE503	5d	04-Nov-15	10-Nov-15
PE-101700	WATER TIGHT HATCH & TEMP POWER AVAILABLE - PE502 & PE503	0d	06-Jan-16	
PE-101610	FRAME & COREBOARD ELEVATOR SHAFT - PE502 & PE503	20d	23-Mar-16	19-Apr-16
PE-101800	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE502 & PE503	80d	20-Apr-16	12-Aug-16
PE-101900	ADJUST / INSPECT FOR TEMP USE VARIANCE - PE502	10d	15-Aug-16	26-Aug-16
PE-101910	ELEVATOR TEMP USE FOR CONSTRUCTION - PE502	198d	29-Aug-16	15-Jun-17
PE-101810	ELEVATOR INTERIORS - PE502 & PE503	20d	16-Jun-17	17-Jul-17
PE-102000	FINAL ADJUSTMENTS - PE502 & PE503	10d	18-Jul-17	31-Jul-17
PE-102200	COMMISSIONING - PE502 & PE503	10d	01-Aug-17	14-Aug-17
PE-102300	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE502 & PE503	10d	15-Aug-17	28-Aug-17
ELEVATORS PE704 & PE705 (BUILDING LINES 32 - 32.4 (LC TO PARK)		407d	19-Feb-16	05-Oct-17
PE-102400	SET OVERHEAD MACHINES - PE704 & PE705	5d	19-Feb-16	25-Feb-16
PE-102500	WATER TIGHT HATCH & TEMP POWER AVAILABLE - PE704 & PE705	0d	15-Apr-16	
PE-102510	FRAME & COREBOARD ELEVATOR SHAFT - PE704 & PE705	20d	04-May-16	02-Jun-16
PE-102600	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - PE704 & PE705	80d	03-Jun-16	27-Sep-16
PE-102700	ADJUST / INSPECT FOR TEMP USE VARIANCE - PE704 & PE705	10d	28-Sep-16	12-Oct-16
PE-102710	ELEVATOR TEMP USE FOR CONSTRUCTION - PE704 & PE705	194d	13-Oct-16	25-Jul-17
PE-102610	ELEVATOR INTERIORS - PE704 & PE705	20d	26-Jul-17	22-Aug-17
PE-102800	FINAL ADJUSTMENTS - PE704 & PE705	10d	23-Aug-17	07-Sep-17
PE-103000	COMMISSIONING - PE704 & PE705	10d	08-Sep-17	21-Sep-17
PE-103100	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE704 & PE705	10d	22-Sep-17	05-Oct-17
ELEVATORS SE201 & SE202 (BUILDING LINES 4 - 5) (LC TO PARK)		412d	19-Oct-15	14-Jun-17
PE-103200	SET OVERHEAD MACHINES - SE201 & SE202	5d	19-Oct-15	23-Oct-15
PE-103300	WATER TIGHT HATCH & TEMP POWER AVAILABLE - SE201 & SE202	0d	16-Dec-15	
PE-103310	FRAME & COREBOARD ELEVATOR SHAFT - SE201 & SE202	20d	23-Dec-15	25-Jan-16
PE-103400	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - SE201 & SE202	80d	26-Jan-16	17-May-16
PE-103500	ADJUST / INSPECT FOR TEMP USE VARIANCE - SE201 & SE202	10d	18-May-16	02-Jun-16

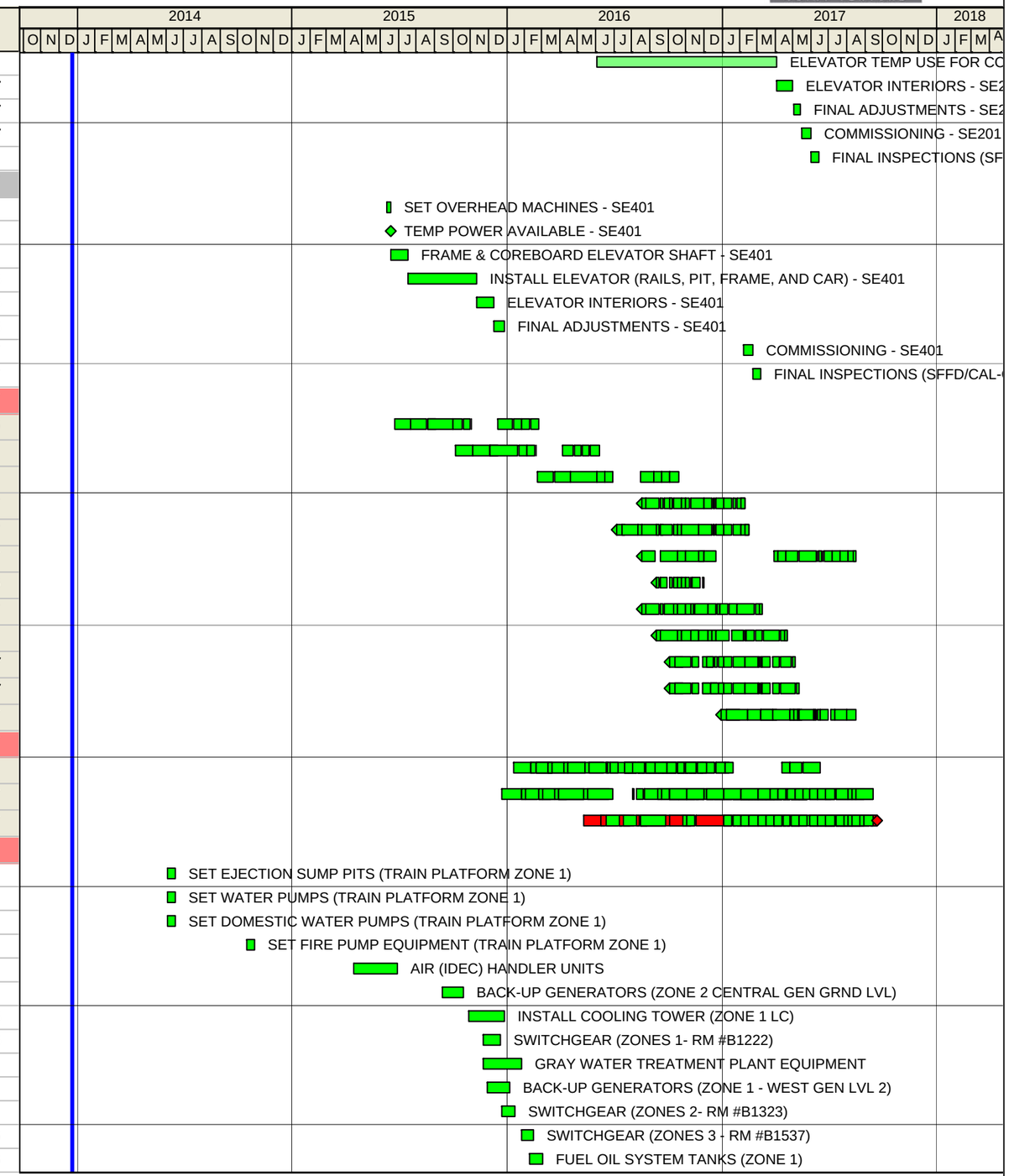


Project ID: 30100-IFB8
Print Date: 23-Jan-14, 17:07

TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
PE-103510	ELEVATOR TEMP USE FOR CONSTRUCTION - SE201 & SE202	207d	03-Jun-16	03-Apr-17
PE-103410	ELEVATOR INTERIORS - SE201 & SE202	20d	04-Apr-17	01-May-17
PE-103600	FINAL ADJUSTMENTS - SE201 & SE202	10d	02-May-17	15-May-17
PE-103800	COMMISSIONING - SE201 & SE202	10d	16-May-17	31-May-17
PE-103900	FINAL INSPECTIONS (SFFD/CAL-OSHA) - SE201 & SE202	10d	01-Jun-17	14-Jun-17
ELEVATOR SE401 (BUILDING LINES 15 - 16) (GROUND & SECOND)		431d	11-Jun-15	07-Mar-17
PE-104970	SET OVERHEAD MACHINES - SE401	5d	11-Jun-15	17-Jun-15
PE-104980	TEMP POWER AVAILABLE - SE401	0d	18-Jun-15	
PE-104990	FRAME & COREBOARD ELEVATOR SHAFT - SE401	20d	18-Jun-15	16-Jul-15
PE-105000	INSTALL ELEVATOR (RAILS, PIT, FRAME, AND CAR) - SE401	80d	17-Jul-15	10-Nov-15
PE-105010	ELEVATOR INTERIORS - SE401	20d	11-Nov-15	10-Dec-15
PE-105020	FINAL ADJUSTMENTS - SE401	10d	11-Dec-15	28-Dec-15
PE-105030	COMMISSIONING - SE401	10d	07-Feb-17	21-Feb-17
PE-105040	FINAL INSPECTIONS (SFFD/CAL-OSHA) - PE401	10d	22-Feb-17	07-Mar-17
CIVIL SITE WORK @ GRADE		535d	24-Jun-15	17-Aug-17
FIRST ST. PERMANENT UTILITIES AND CROSSING		165d	24-Jun-15	24-Feb-16
FREMONT ST. PERMANENT UTILITIES AND CROSSING		165d	07-Oct-15	07-Jun-16
BEALE ST. PERMANENT UTILITIES AND CROSSING		166d	23-Feb-16	19-Oct-16
WEST END (GRID LINES A - J)		117d	18-Aug-16	08-Feb-17
WEST MINNA (GRID LINES 1 - 10)		152d	07-Jul-16	15-Feb-17
WEST NATOMA (GRID LINES 1 - 10)		248d	18-Aug-16	17-Aug-17
SHAW ALLEY		57d	12-Sep-16	02-Dec-16
CENTRAL MINNA (GRID LINES 10 - 18)		138d	18-Aug-16	10-Mar-17
CENTRAL NATOMA (GRID LINES 10 - 18)		153d	12-Sep-16	21-Apr-17
GRAND HALL NORTH (GRID LINES 19 - 25)		146d	05-Oct-16	05-May-17
GRAND HALL SOUTH (GRID LINES 19 - 25)		151d	05-Oct-16	12-May-17
MUNI TERMINAL (GRID LINES 27 - 35 & A-J)		157d	30-Dec-16	16-Aug-17
ROOFTOP PARK - WATERPROOFING/LANDSCAPE/HARDSCAPE		435d	23-Dec-15	22-Sep-17
WEST (1-10)		357d	13-Jan-16	16-Jun-17
CENTRAL (10-25)		430d	23-Dec-15	15-Sep-17
EAST (25-35)		340d	11-May-16	22-Sep-17
BUILDING SYSTEMS - MEPS/BMS/FA		654d	03-Jun-14	23-Jan-17
BS-136000	SET EJECTION SUMP PITS (TRAIN PLATFORM ZONE 1)	10d	03-Jun-14	16-Jun-14
BS-133000	SET WATER PUMPS (TRAIN PLATFORM ZONE 1)	10d	03-Jun-14	16-Jun-14
BS-135000	SET DOMESTIC WATER PUMPS (TRAIN PLATFORM ZONE 1)	10d	03-Jun-14	16-Jun-14
BS-120100	SET FIRE PUMP EQUIPMENT (TRAIN PLATFORM ZONE 1)	10d	16-Oct-14	29-Oct-14
BS-140400	AIR (IDEC) HANDLER UNITS	50d	17-Apr-15	29-Jun-15
BS-102200	BACK-UP GENERATORS (ZONE 2 CENTRAL GEN GRND LVL)	25d	14-Sep-15	19-Oct-15
BS-135100	INSTALL COOLING TOWER (ZONE 1 LC)	40d	28-Oct-15	28-Dec-15
BS-100100	SWITCHGEAR (ZONES 1- RM #B1222)	20d	23-Nov-15	22-Dec-15
BS-132100	GRAY WATER TREATMENT PLANT EQUIPMENT	40d	23-Nov-15	25-Jan-16
BS-102100	BACK-UP GENERATORS (ZONE 1 - WEST GEN LVL 2)	25d	30-Nov-15	06-Jan-16
BS-100000	SWITCHGEAR (ZONES 2- RM #B1323)	15d	23-Dec-15	15-Jan-16
BS-100200	SWITCHGEAR (ZONES 3 - RM #B1537)	15d	26-Jan-16	16-Feb-16
BS-102120	FUEL OIL SYSTEM TANKS (ZONE 1)	15d	09-Feb-16	01-Mar-16



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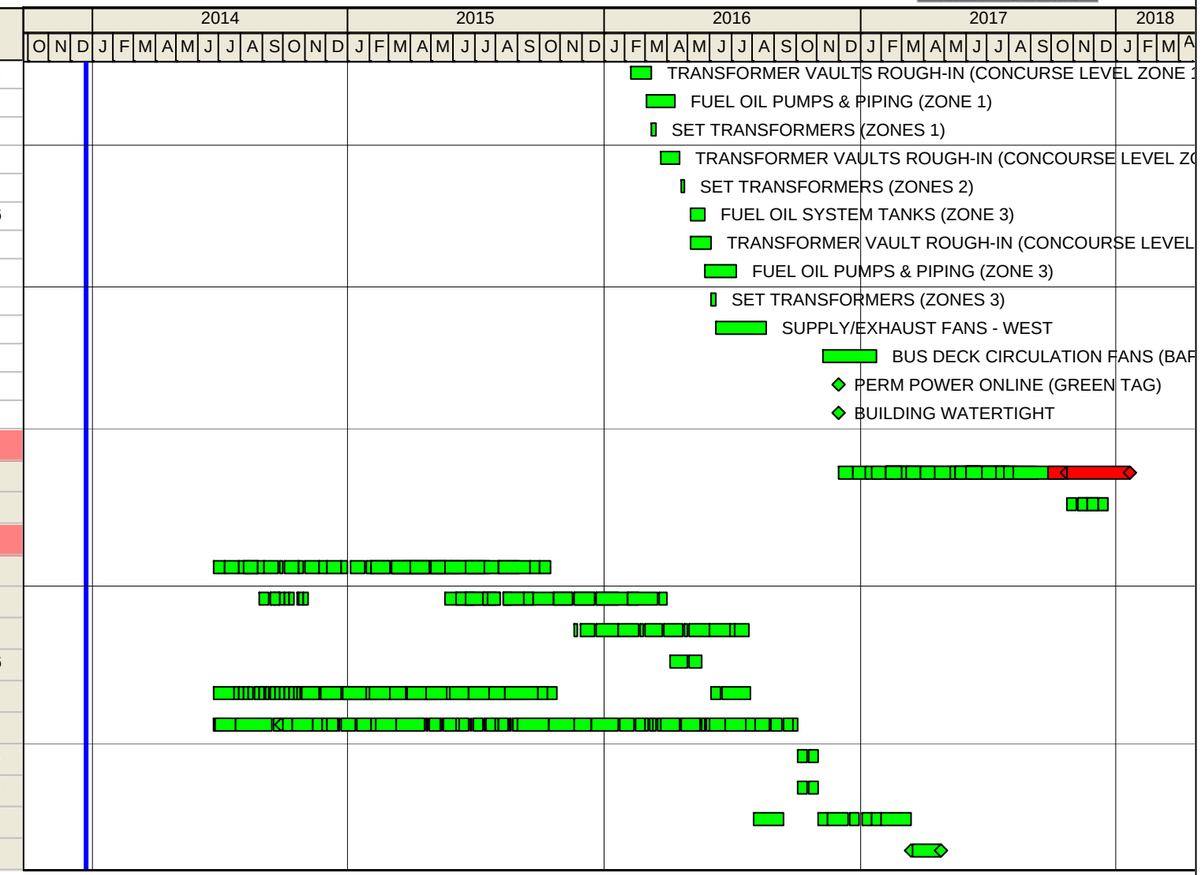
User: wterry
Data Date: 23-Dec-13

Project ID: 30100-IFB8
Print Date: 23-Jan-14, 17:07

TRANSBAY TRANSIT CENTER

TG07.5 EXHIBIT I SCHEDULE

Activity ID	Activity Name	OD	Start	Finish
BS-110000	TRANSFORMER VAULTS ROUGH-IN (CONCURSE LEVEL ZONE 1 - RM #B1220)	20d	09-Feb-16	08-Mar-16
BS-102140	FUEL OIL PUMPS & PIPING (ZONE 1)	30d	02-Mar-16	12-Apr-16
BS-110050	SET TRANSFORMERS (ZONES 1)	5d	09-Mar-16	15-Mar-16
BS-110200	TRANSFORMER VAULTS ROUGH-IN (CONCOURSE LEVEL ZONE 2 - RM #B1322)	20d	23-Mar-16	19-Apr-16
BS-110150	SET TRANSFORMERS (ZONES 2)	5d	20-Apr-16	26-Apr-16
BS-102220	FUEL OIL SYSTEM TANKS (ZONE 3)	15d	04-May-16	24-May-16
BS-110010	TRANSFORMER VAULT ROUGH-IN (CONCOURSE LEVEL ZONE 3 - #B1536)	20d	04-May-16	02-Jun-16
BS-102240	FUEL OIL PUMPS & PIPING (ZONE 3)	30d	25-May-16	08-Jul-16
BS-110250	SET TRANSFORMERS (ZONES 3)	5d	03-Jun-16	09-Jun-16
BS-140200	SUPPLY/EXHAUST FANS - WEST	50d	10-Jun-16	19-Aug-16
BS-140500	BUS DECK CIRCULATION FANS (BAF'S)	50d	08-Nov-16	23-Jan-17
BS-102340	PERM POWER ONLINE (GREEN TAG)	0d		30-Nov-16
BS-102335	BUILDING WATERTIGHT	0d		30-Nov-16
COMMISSIONING/TESTING/TRAINING/TURNOVER		280d	01-Dec-16	21-Jan-18
COMMISSIONING & TESTING		280d	01-Dec-16	21-Jan-18
TRAINING & TURNOVER		40d	24-Oct-17	20-Dec-17
BUS RAMP		705d	24-Jun-14	26-Apr-17
FREMONT OFF RAMP		326d	24-Jun-14	16-Oct-15
HARRISON ST. BRIDGE		394d	27-Aug-14	01-Apr-16
RETAINING WALL		170d	19-Nov-15	27-Jul-16
I-80 CONNECTION ON GRADE		35d	04-Apr-16	20-May-16
VIADUCT		521d	24-Jun-14	29-Jul-16
CABLE STAYED BRIDGE		565d	24-Jun-14	03-Oct-16
ELECTRICAL		20d	04-Oct-16	01-Nov-16
MECHANICAL		20d	04-Oct-16	01-Nov-16
APPURTENANCES		154d	01-Aug-16	15-Mar-17
BUS RAMP CONTRACT COMPLETION		30d	15-Mar-17	26-Apr-17



WEBCOR BUILDERS OBAYASHI JOINT VENTURE

Exhibit J

Reviewed by Webcor/Obayashi

1751 Harbor Bay Parkway Ste. 200
Alameda, CA 94502

Review is for general coordination and conformance with design intent only and for submittal in accordance with the contract documents. Review by Webcor Builders does not relieve the subcontractor and/or supplier of responsibility for full coordination, accurate dimensions, correct quantities and full compliance with the contract documents. In the event subcontractor and/or supplier intends to propose any substitution or deviation to the contract documents, each substitution or deviation must be submitted and approved prior to submitting it in a shop drawing or other submittal. Review by Webcor does not imply acceptance of any substitution or deviation.

Submittal Pkg. Number: WO-CQC0001.10

Submittal Number: WO0000-011400W01.10

Webcor Job No.: 30100 Transbay Transit Center

Reviewed By: Jackson Tukuafu

Date: 11/12/2013

Subcontractor: WOJV

WOJV Cycle of Submittal: 10

7/12 V1.4

Transbay Transit Center

Webcor/Obayashi Joint Venture

Contractor Quality Control Plan

for the

Transbay Transit Center Project

November 04, 2013

REV. 10

WO0000-011400WO1.10

REVISION LOG

REVISION 0: SUBMITTED 10/07/2010 – REVISE AND RESUBMIT 10/29/2010

REVISION 1: SUBMITTED 11/03/2010 – REJECTED 11/19/2010

REVISION 2: SUBMITTED 01/04/2011 – REJECTED 01/13/2011

REVISION 3: SUBMITTED 03/09/2011 – MAKE CORRECTIONS NOTED 12/21/2011

REVISION 4: SUBMITTED 12/09/2011 – MAKE CORRECTIONS NOTED 2/23/2012

REVISION 5: SUBMITTED 05/07/2012 – REVISE & RESUBMIT 06/01/2012

REVISION 6: SUBMITTED 08/02/2012 – REVISE & RESUBMIT 08/27/2012

REVISION 7: SUBMITTED 08/27/2012 – NO EXCEPTIONS TAKEN 02/14/2013

REVISION 8: SUBMITTED 03/21/2013 – NO EXCEPTIONS TAKEN 04/17/2013

REVISION 9: SUBMITTED 08/30/2013 – REVISE & RESUBMIT 10/04/2013

REVISION 10.: SUBMITTED 11/04/2013

WEBCOR/OBAYASHI JOINT VENTURE
CONTRACTOR QUALITY CONTROL PLAN
TRANSBAY TRANSIT CENTER PROJECT

1.0 ELEMENT 1: ***MANAGEMENT RESPONSIBILITY***

2.0 ELEMENT 2: ***DOCUMENTED QUALITY MANAGEMENT SYSTEM***

3.0 ELEMENT 3: ***DESIGN CONTROL***

4.0 ELEMENT 4: ***DOCUMENT CONTROL***

5.0 ELEMENT 5: ***PURCHASING***

6.0 ELEMENT 6: ***PRODUCT IDENTIFICATION AND TRACEABILITY***

7.0 ELEMENT 7: ***PROCESS CONTROL***

8.0 ELEMENT 8: ***INSPECTION AND TESTING***

9.0 ELEMENT 9: ***INSPECTION, MEASURING, AND TEST EQUIPMENT***

10.0 ELEMENT 10: ***INSPECTION, TEST & OPERATION STATUS***

11.0 ELEMENT 11: ***NONCONFORMANCE***

12.0 ELEMENT 12: ***CORRECTIVE ACTION***

13.0 ELEMENT 13: ***QUALITY RECORDS***

14.0 ELEMENT 14: ***QUALITY AUDITS***

15.0 ELEMENT 15: ***TRAINING***

This Webcor/Obayashi JV Contractor Quality Control Plan will be developed incrementally as the trade packages are awarded and trade subcontractors are brought on board. Each trade subcontractors QC plan will become part of the Webcor/Obayashi JV's overall Contractor's Quality Control Plan and will be submitted to the Transbay Joint Power Authority as they are received.

1.0 ELEMENT 1 ***MANAGEMENT RESPONSIBILITY***

1.0 MANAGEMENT RESPONSIBILITY

1.1 INTRODUCTION PLAN

Project quality is the responsibility of all members of the project team and starts at the highest level of management. This Quality Control Management Plan details the specific processes by which the Project's quality will be managed and forms the basis upon which Webcor/Obayashi JV will ensure that all quality policy requirements for the Transbay Transit Center are compliant, maintained and continually being evaluated and improved. This Plan integrates the quality management process into the Webcor/Obayashi JV organizational structure and construction management systems.

Key elements of this plan include:

- The commitment of the Webcor/Obayashi JV Senior management to delivering a project that meets the Transbay Transit Center Quality Management System Manual.
- Accepted project specific construction management policies, procedures and tools for the control of project information and the management of the construction documents, submittals and the work of the trade subcontractors.
- A Webcor/Obayashi JV project-specific quality plan that meets the TJPA and FTA quality requirements and contract requirements.
- Trade Subcontractor, site specific, quality plans that meet TJPA and FTA quality requirements and contract requirements.
- Consistent CQC staff oversight- the Webcor/Obayashi JV CQC Manager and the Trade Subcontractors CQC Managers will have a physical presence on site when work is in progress.

1.2 FEDERAL TRANSIT ADMINISTRATION GUIDELINES

The Webcor/Obayashi JV Contractor Quality Control Plan incorporates all 15 Essential Elements of the Federal Transit Administrations Quality Assurance and Quality Control Guidelines dated December 2012 as appropriate for Webcor/Obayashi's scope of work:

1. *Management responsibility*
2. *Documented quality management system*

3. *Design control*
4. *Document control*
5. *Purchasing*
6. *Product identification and traceability*
7. *Process control*
8. *Inspection and testing*
9. *Inspection, measuring and test equipment*
10. *Inspection, test and operating status*
11. *Nonconformance*
12. *Corrective action*
13. *Quality records*
14. *Quality audits*
15. *Training*

1.3 MANAGEMENT RESPONSIBILITIES

Webcor/Obayashi JV fully integrates this quality management plan into the organizational structure and performance management systems of the project.

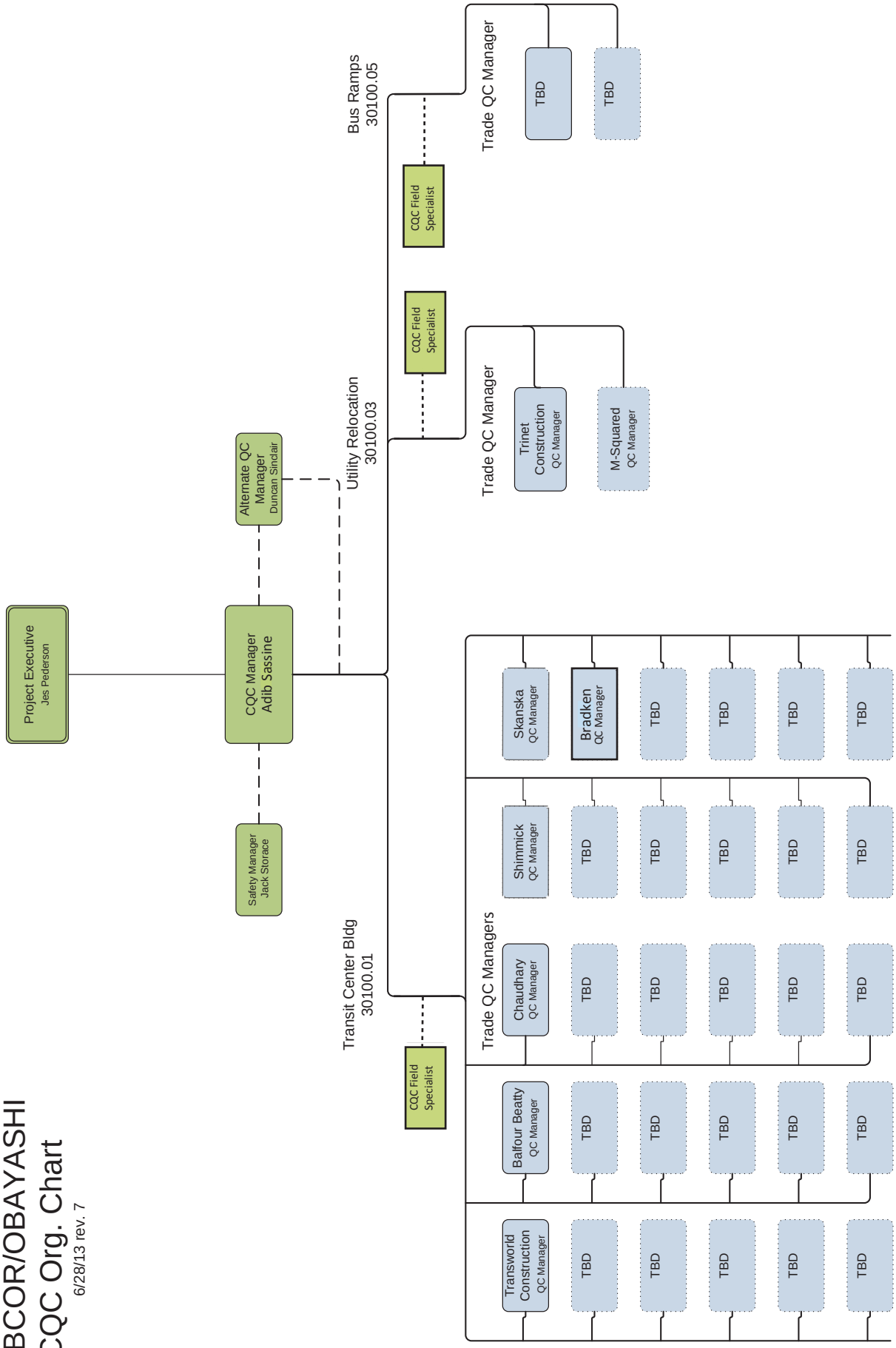
- Maintain and follow a documented Quality System consisting of this Site Specific Quality Manual with policies and procedures.
- Establish and implement project management procedures.
- Maintain Quality System documents and records.

1.4 PROJECT EXECUTIVE QUALITY RESPONSIBILITIES

The Project Executive of Webcor/Obayashi JV is the one person in the company ultimately responsible for quality control function. Regardless of other duties, quality responsibilities of the Project Executive include:

- Empower the Webcor/Obayashi JV Transbay Transit Center CQC Manager to perform the CQC duties described in the contract documents.
- Oversee the projects quality plan and objectives.
- Ensure the availability of necessary resources and information for effective operation of the CQC System.
- Provide active oversight of the Trade Contractors Quality Control Plans

WEBCOR/OBAYASHI
CQC Org. Chart
6/28/13 rev. 7



2.0 ELEMENT 2 DOCUMENTED QUALITY MANAGEMENT SYSTEM

2.1 INTRODUCTION

2.2 CQC OVERVIEW

2.3 THREE PHASES OF CONTROL

2.4 TRADE SUBCONTRACTORS QUALITY CONTROL PLAN

2.5 WEBCOR/OBAYASHI JV CQC MANAGER DUTIES & RESPONSIBILITIES

2.6 WEBCOR/OBAYASHI JV ALTERNATE CQC MANAGER DUTIES AND RESPONSIBILITIES

2.7 TRADE SUBCONTRACTOR'S QC MANAGER DUTIES AND RESPONSIBILITIES

2.8 QC SPECIALISTS RESPONSIBILITIES

2.9 APPOINTMENT LETTERS, RESUMES AND QUALIFICATIONS

A. WEBCOR/OBAYASHI JV CQC MANAGER APPOINTMENT LETTER

B. WEBCOR/OBAYASHI JV ALTERNATE CQC MANAGER APPOINTMENT LETTER

C. CQC MANAGER RESUME

D. ALTERNATE CQC MANAGER RESUME

E. QC SPECIALIST QUALIFICATIONS

2.10 TRADE SUBCONTRACTORS QUALITY CONTROL MEETING

2.11 DEFINITIONS

2.12 LIST OF TRADE SUBCONTRACTORS DFOW'S

2.13 PREPARATORY PHASE CHECK LIST FORM

2.14 INITIAL PHASE CHECKLIST FORM

2.0 DOCUMENT QUALITY MANAGEMENT SYSTEM

2.1 INTRODUCTION

Webcor/Obayashi JV is responsible for developing and maintaining attached written procedures and instructions regularly for activities affecting quality in design, procurement manufacturing and construction as applicable to the work performed. This will include implementing documentation of this Contractor Quality Control Plan and their assuring that Trade Subcontractors prepare, implement document trade package specific QC Plans. Webcor /Obayashi JV CQC Field Specialists will provide day to day oversight of the CQC System to assure Trade Subcontractor work conforms to the requirements of Transbay Transit Center Contract Documents and this Webcor/Obayashi JV CQC Plan.

Webcor/Obayashi JV will direct Trade Subcontractors to execute their CQC plans and maintain compliance with all project requirements as described in the Contract Documents. Contracts with Trade Subcontractors and Sub-tier Subcontractors shall include a requirement to comply with the provisions of this Plan, and to prepare and execute QC plans appropriate for their scope of work. The Trade Subcontractors, Sub-tier Subcontractors are authorized to manage their own QC Plans. All subcontractors, QC Managers, field personnel assigned to that work at the site shall conform to contract including the requirements described in this CQC Plan and their trade package specific QC Plans.

2.2 CQC OVERVIEW

Quality Control Written procedures and instructions have been developed for activities affecting quality in design, procurement, manufacturing, and construction as applicable to the work performed. Procedures and instructions have been developed for control of processes including inspection, testing, nondestructive examination, disposition of nonconforming product, corrective action, maintenance of quality records, quality audits, and training.

The procedures contain a statement of the purpose and scope, and contain any references to appropriate codes, standards, or specifications. In developing the quality approved and futrue procedures, consideration has be given to identifying and acquiring any inspection equipment, skills, or special quality processes needed to ensure quality performance. Inspection and testing techniques shall be kept up-to-date. Where new techniques are being used for construction or manufacturing, adequate time shall be allowed to develop appropriate quality procedures for the new techniques. The procedures and instructions shall contain formats for the quality records needed to ensure that the procedures and instructions are followed and documentation requirements are understood.

By providing these guideline to Trade Subcontractors and then meeting with them, along with other key members of the project team, W/OJV will assure that each of the subcontractors, whether large or small would be able to develop a CQC Quality plan that satisfies the requirements of the FTA Guidelines, and consistent from plan to plan.

Offsite Quality Control for Bradken Steel Nodes Casting, Skanska Structural Steel Fabrications, Skylight Glass and other offsite systems fabrication and equipment will be inspected in the shop for quality in coordination with special inspections by our trade subcontractors. This will cover all offsite construction operations as required per contract. This is in addition to Quality Assurance by Turner QA team as TJPA Representative.

2.3 THREE PHASE QUALITY CONTROL SYSTEM

The three phase of control for the Contractor's quality control is the means by which W/OJV, including Trade Subcontractors and supplier ensure that the construction complies with the requirements of the Contract:

PREPARATORY PHASE:

This phase is accomplished prior to beginning work on each definable feature of work, after all required contract submittals, documents, and materials are approved and accepted and after copies are at the work site. This meeting includes:

1. A review of applicable specifications, reference codes, and standards. The Trade Subcontractor QC Manager shall make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the Work to be accomplished in the field. The Trade Subcontractor QC Manager shall maintain and make available in the field for use by TJPA Representative until final acceptance of the Work.
2. Review of the Contract drawings and approved shop drawings (approved as noted shop drawings and record shop drawings) that incorporate all CD details.
3. Identify any submittals that have not been approved.
4. Check to assure that all materials and/or equipment have been pre-tested (if required per specification), submitted, and approved.
5. Review of provisions that have been made to provide required control inspection and testing.
6. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the Contract.

7. Examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
8. Review of the appropriate activity hazard analysis to assure environmental requirements are met.
9. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
10. Check to ensure that the portion of the CQC Plan for the work to be performed has been accepted by the TJPA Representative.
11. Discussion of the initial control phase, set the date, location and scope of activities.
12. Clarification of details may be added as required after work has commenced in the form of RFI's.
13. Review Status of any outstanding RFI's

The TJPA representative shall be notified at least 48 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the CQC System Manager and attended by the Trade Subcontractor's CQC Manager, other CQC personnel (as applicable), and the superintendent responsible for the definable feature of work. CQC System Manager shall document the results of the preparatory phase actions by separate minutes and attach the minutes to the weekly CQC report. CQC System Manager shall instruct applicable workers as to the acceptable level of workmanship required in order to meet Contract requirements (see the "Preparatory Phase Checklist Form" in this section; Tab/Element 7).

INITIAL PHASE:

This phase is accomplished at the beginning of each Definable Feature of Work (at least 1-2 days prior to start of work). This phase includes:

1. Reviewing the minutes of the preparatory meeting and ensuring any open issues have been resolved
2. Verifying the adequacy of controls to ensure full contract compliance, inspection and testing.

3. Establishing level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
4. Resolving all differences.

The CQC System Manager shall prepare separate minutes of this phase and attach the minutes to the daily CQC report. The TJPA shall be notified at least 72 hours in advance of beginning the initial phase. The initial phase shall be repeated for each new definable feature of work (see the "Initial Phase Checklist Form" in this section; Tab/Element 7). .

FOLLOW-UP PHASE:

CQC System Manager and the Subcontractor QC manager shall perform daily checks to assure that control activities, including control testing, are providing continued compliance with contract requirements until completion of the particular feature of work. Record the checks in the CQC documentation, and file regularly in the appropriate DFOW file folder. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work that may be affected by the deficient work. New work shall not be built upon or conceal nonconforming work. Use FCR's on BIM 360 immediately to document deficiencies with materials, installation defects or un-approved shop drawings or products.

2.4 TRADE SUBCONTRACTORS QUALITY CONTROL PLAN

After contract award and prior to beginning construction activities each Trade Subcontractor will submit (per specification section 01 13 00 Submittals, paragraph 1.4) to the Webcor/Obayashi Joint Venture CQC Manager their project specific quality control plan for review and approval. Each Trade Subcontractor will designate and provide a project specific Trade Subcontractor Quality Control Manager who reports to the W/OJV CQC Manager and who's primary responsibility will be to implement and manage the Trade Subcontractor's quality control plan and certify theTrade Subcontractor's compliance with the Webcor/Obayashi Joint Venture Quality Control Plan and all quality control requirements contained in the project documents including specification section 01 14 00 Quality Control. The Trade Subcontractors CQC program will be reviewed for compliance to the Contract Documents. In addition to the requirements contained in other sections of this Plan, the Trade Contractors Quality Control Program will include:

- QC Organization chart.
- Procedures for fabrication and installation.
- Procedures for planning and verifying compliance and controlling quality of the work (including checklist forms).
- Procedures for layout verification.

- Coordination with related contractors.
- List of specified tolerances and workmanship standards for each DFOW.

- Daily CQC Reports.
- Program for identifying and correcting defective work.
- Inspection, test and acceptance procedures when specified in the Technical Specifications to be part of the Trade Subcontractors scope
- A quality control Plan that addressed the Federal Transit Administration (FTA Quality Control Guidelines (ref: Transbay Transit Center Quality Management System Manual)

2.5 WEBCOR/OBAYASHI JV CQC MANAGER DUTIES AND RESPONSIBILITIES

The CQC Manager, or his approved alternate, oversees the overall implementation of the Webcor /Obayashi JV Quality Control Plan. The CQC manager, will be independent of the "production organization". The CQC Manager will:

- During performance of the Work will have complete authority to take any action necessary to ensure conformance with the requirements of the Contract Documents. The Webcor/Obayashi CQC Manager or Alternate CQC Manager will have a physical presence on site when work is in progress. In the event of the CQC Managers absence, the Alternate CQC Manager must be present and will have the same authority as the CQC Manager.
- Review for conformance and completeness and approve the Trade Subcontractors QC Plans prior to submittal to the TJPA for acceptance.
- Manage the development and maintenance of the list of Definable Features of Work.
- Meet with the TJPA representative at the Coordination Meeting (Meeting of Mutual Understanding) for each Trade Work Package.
- Provide WOJV management with monthly CQC updates.
- Ensure and document Trade Subcontractor's application of Three Phases of Control for each Definable Feature of Work.
- Conduct the Preparatory, Initial and Follow-up phase activity meetings.
- Stop and document work that does not comply with requirements of the Contract Documents, and direct removal and replacement of any defective work.
- Ensure and document that all Trade Subcontractor Work performed, on and off the construction site, conforms to requirements of the Contract Documents. Ensure and document that all materials and equipment comply with the

requirements of the Contract Documents. Report any deficiencies and corrective action planned and taken in BIM 360 Systems

- Ensure that all Trade Subcontractors CQC Plans are in conformance with the Webcor /Obayashi JV CQC plan and with the requirements of the Contract Documents.
- Review for conformance, completeness and clarity that all Trade Subcontractors certify their submittals for conformance with the requirements of the Contract Documents.
- Ensure W/O staff document review and approval of submittals prior to transmission to the CMO.
- Review and approve Webcor/Obayashi JV Daily Quality Control reports
- Prepare and submit Weekly Contractor Quality Control reports
- Ensure that all Trade Subcontractors prepare, complete and submit Daily Quality Control reports.
- Maintain copies of all quality control and quality program documents in Constructware.
- Support and facilitate the Audit Process per the QMS and FTA Element 14 (Quality Audits).
- Conduct internal audits
- Ensure that RUP Contractors use preplanning sheets and work plans for improved Quality Control, improved record keeping for M&TE (Measuring and Testing Equipment) and calibration data.
- W/OJV CQC Manager will ensure that CQC team provides a written plan and schedule for resolution of non-conforming work.
- W/OJV CQC team provides a weekly summary and review of CQC activities at the Quality Meeting.

2.6 WEBCOR/OBAYASHI JV ALTERNATE CQC MANAGER DUTIES AND RESPONSIBILITIES

The Alternate CQC Manager performs all duties of the CQC Manager when the CQC Manager is not on-site. The Alternate CQC manager, when performing the duties of the CQC Manager, is independent of the “production organization”. The Alternate CQC Manager’s responsibilities are the same as the CQC Managers

2.7 TRADE SUBCONTRACTORS QC MANAGER DUTIES/RESPONSIBILITIES:

The Trade Subcontractor QC Manager reports to the Webcor /Obayashi JV CQC Manager and oversees the trade specific implementation of the quality control program and whose primary responsibility will be to implement the Trade

Subcontractor's quality control plan. The Trade Subcontractor QC manager will certify that the Trade Subcontractor's work is in compliance with the Contract Documents and complies with the Webcor/Obayashi Joint Venture Quality Control Plan and all quality control requirements contained in the Contract Documents, including specification section 01 14 00 Quality Control. The Trade Subcontractor QC Manager will:

- Manage the Trade Subcontractors Quality Control Program both onsite and offsite.
- Submit a QC Plan that meets the requirements of the Webcor/Obayashi CQC Plan, Specification 01 14 00 Quality Control and the TTC Quality Management System Manual and FTA 15 Essential Elements.
- The Trade Subcontractor QC Manager or alternate QC Manager will have a physical presence on site when work is in progress.
- Designate a qualified Alternate Trade Subcontractor QC Manager to serve in the event of the Trade Subcontractor QC Manager's absence.
- During performance of the Work, will have complete authority to take any action necessary to ensure conformance with the requirements of the Contract Documents.
- Submit daily Quality Control Reports to the Webcor/Obayashi JV CQC Manager.
- Submit Preparatory and Initial Phase Checklists, along with Follow-up Phase documentation for each DFOW to the Webcor/Obayashi JV CQC Manager for review and approval.
- Establish written procedures for Trade Subcontractor document control, submittal management and material procurement.
- Maintain review for conformance and submit copies of all quality control documentation, certifications, and materials delivery receipts as required in the Contract Documents.
- Attend the Coordination meetings (Meeting of Mutual Understanding).
- Manage the Three Phases of Control process for each DFOW, including attending the Preparatory, Initial and Follow-up phase activity meetings for each of the trade subcontractors DFOW.
- Immediately stop any work, for which they are responsible, that does not comply with requirements of the Contract Documents, and direct removal and replacement of any defective work.
- Conduct daily quality inspections of Work performed prior to request for agency or special inspections to ensure compliance with requirements of the Contract Documents.

- Ensure that all Work performed, on and off the construction site, and all materials and equipment conform to requirements of the Contract Documents.

  Report nonconformances and corrective action planned and taken in BIM 360 Systems.
- Remove any person from the Project that consistently fails to perform Work properly.
- Ensure that the Trade Subcontractors submittals conform to the requirements of the Contract Documents.

2.8 QC Specialist Responsibilities

In addition to CQC personnel specified elsewhere in the Contract, Contractor shall provide as part of the CQC organization, QC specialists that are specialized personnel to implement the CQC Plan. The QC specialist will:

- Be responsible to the CQC System Manager
- Be physically present at the construction site during work on their areas of responsibility, and have the necessary education and experience.
- These induviduals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the CQC plan.
- Stop and document work that does not comply with requirement of the Contract documents, and direct removal and replacement of any defective work.

WEBCOR BUILDERS OBAYASHI JOINT VENTURE

CONTRACTOR QUALITY CONTROL MANAGER APPOINTMENT LETTER

To: Adib Sassine
Quality Control Manager

From: Jes Pederson
President / CEO Webcor/Obayashi Joint Venture

Date: October 24, 2013

Subject: Appointment of Quality Control Manager for Transbay Project

---

Please be advised that you are hereby appointed as Quality Control Manager for the Transbay Transit Center Project. Your responsibilities include managing and implementing the Webcor/Obayashi Joint Venture Project Quality Control Plan.

You are assigned the following responsibilities:

- Implementing provisions of the Webcor/Obayashi JV Quality Control Plan as it pertains to the contract Documents.
- Assuring that the Quality Control Plan is established and implemented by persons doing work that impacts quality.
- Assuring that the Quality Control Plan complies to the FTA Guidelines, TJPA Quality Management System and Contract requirements.
- Acting as W/O JV liaison with parties outside of the company on matters relating to quality.
- Reporting to Senior Management on the performance of the Quality Control Plan, including needed improvements.
- Review for conformance, completeness and clarity of the quality control documents.
- Review for conformance, completeness and clarity of quality control records.
- Review for conformance, completeness and clarity of quality related contract submittals.
- Review for conformance, completeness and clarity of project inspection and QC activities.
- Review for conformance, completeness and clarity of subcontractors quality control programs.
- Reporting to the TJPA representative on matters pertaining to quality.
- Reviewing for conformance, completeness, clarity and distributing subcontract QC reports.

I grant you authority for carrying out the above responsibilities including:

- Stopping Work when continuing work may adversely affect quality or cover up a defect.
- To direct the removal and replacement of a nonconforming work or material by any subcontractor or supplier.

President / CEO signature and date: 10/24/13

ALTERNATE QUALITY CONTROL MANAGER APPOINTMENT LETTER

To: Duncan Sinclair
Alternate Quality Control Manager

From: Jes Pederson
President / CEO Webcor/Obayashi Joint Venture

Date: October 24, 2013

Subject: Appointment of Alternate Quality Control Manager for Transbay Project

---

Please be advised that you are hereby appointed as Quality Control Manager for the Transbay Transit Center Project. Your responsibilities include managing and implementing the Webcor/Obayashi Joint Venture Project Quality Control Plan.

You are assigned the following responsibilities:

- Implementing provisions of the Webcor/Obayashi JV Quality Control Plan as it pertains to the contract Documents.
- Assuring that the Quality Control Plan is established and implemented by persons doing work that impacts quality.
- Assuring that the Quality Control Plan complies to the FTA Guideline, TJPA Quality Management System and Contract requirements.
- Acting as W/O JV liaison with parties outside of the company on matters relating to quality.
- Reporting to Senior Management on the performance of the Quality Control Plan, including needed improvements.
- Review for conformance, completeness and clarity of the QC documents with contract documents and approval.
- Review for conformance, completeness and clarity of QC records with contract documents and approval.
- Review for conformance, completeness and clarity of quality related contract submittals with contract documents and approval.
- Review for conformance, completeness and clarity of project inspection and QC activities with contract documents and approval.
- Review for conformance, completeness and clarity of subcontractors quality control programs.
- Reporting to the TJPA representative on matters pertaining to quality with contract documents and approval.
- Reviewing for conformance, completeness, clarity and distributing subcontract QC reports and contract documents an approval.

I grant you authority for carrying out the above responsibilities including:

- Stopping Work when continuing work may adversely affect quality or cover up a defect.
- To direct the removal or replacement of and nonconforming work or material by any subcontractor or supplier.

President / CEO signature and date: 10/24/13

ADIB SASSINE, AIA CA RA

PRECON AND CONSTRUCTION QUALITY CONTROL MANAGER

Design and Construction Experience: 35 years (1978)

Mr. Sassine is a California licensed architect and has over 35 years of strong experience in diverse large project types, including Construction Quality Control, Pre-construction and Construction Management. His extensive experience includes over 25 years of experience on new and renovated health care facilities primarily OSHPD projects; and balance of experience includes; education, schools, office buildings, public buildings, large airports, hotels and restoration of historic buildings.

RELEVANT EXPERIENCE

Building Envelope Sr. Consultant and Architect – Allana Buick & Bers (July 2011 to 7.2013)

Architect and Quality Control Manager on several projects including the following:
New Stanford Hospital over $1 billion; Performed peer review of the entire building envelope over 28 systems. (Rafael Vineolli)
9th and Broadway 17 story tower in San Diego; Design and construction quality control of the building envelope including several green roof areas. (Thornton Tomasetti)
Palo Alto Mitchell Park Library including several systems and green roof; Design of all building envelope and performed construction QC. (Group 4)
San Jose University Student Center, LA Harbor Science Building Design and construction monitoring of exterior envelope composite mock-up testing and similar other including UC Berkeley restorations.
UCSF Parnassus MOB and Hospital forensic work and remediation of two major buildings.
San Mateo Medical Center MOB Exterior skin upgrade design.
And several other projects.

Healthcare

Acute Care Mock-up

ADIB SASSINE, SR. Project Manager and QC Manager

Santa Clara Valley Medical Center SCVMC, San Jose, CA – Turner Construction Co (2007 to 2011)

OSHPD – Construction Quality Control Manager on the Bed Building One project which includes the following:

1. A 6 story with Basement and Penthouse nursing tower replacement over 350,000 sf, with 168 beds primarily ICU and Acute Care Units and Rehab Center utilizing SidePlate moment frame system and phased incremental approvals.
2. A 1500 stall Parking Garage with 850 KWp Photovoltaic tracking system over the new garage and retrofit existing Garage for the added solar panel system
3. Design-Build Central Plant upgrade with Site Utilities Loop to include 2-1000 tons absorption chillers, two cooling towers and 2-2000KW generators and two boilers
4. And the Design-Build of Renova Drive intersection relocation
5. Make-ready projects to relocate all underground utilities from the site while the hospital is in operation.

As a QC Manager, Adib is responsible for the construction quality control as well as assisting Purchasing to writing scopes, for all bid packages and reviewing contracts. Some of the quality control responsibilities are to develop the quality control plan and its implementation, pre-inspection of the work before submitting inspection requests by the IOR, reviewing all RFI's, reviewing schedule, reviewing shops and certifying them for compliance with the permitted contract documents, certifying pay applications and certifying milestone completion dates. Adib was involved in providing Pre-construction services such as Sr. Project analyst to provide planning, coordination with all enabling and make-ready projects, scheduling, progress plan check, constructability reviews, report writing and evaluations, phasing plans, cost control and site logistics of the Parking Garage and Solar Power design-build projects and other related hospital projects from Cath Lab to MRI renovation on campus.

CHW St Joseph Women and Children Hospital Stockton, CA ($65M) - Turner

OSHPD – CM at Risk – Pre-construction

Addition of 100,000 sf of 78 beds hospital building with elevated bridge connector and underground parking Garage. Adib provided Constructability Reviews, Site Logistics and Cost Control.


Mills-Peninsula Medical Center Hospital, Burlingame, CA ($400M+) - Turner

OSHPD – CM at Risk – Pre-construction up to NTP

Addition of 440,000 sf six (6) level Hospital designed with base isolation and damper structural systems. Adib provided constructability reviews and purchasing services to include bidding multiple packages, writing scopes and developing bid spread sheets and reviewing all subcontracts for fast-track incremental approvals while project was being reviewed by OSHPD.

Historic Laguna Honda Hospital Seismic Upgrade, San Francisco, CA ($50M) - Turner

OSHPD – CM at Risk – Pre-construction PM

ADIB SASSINE, SR. Project Manager and QC Manager

Adib Managed the project through bidding to include Constructability reviews, phasing, scheduling and budgeting for seismic retrofit of Wing H of the original historic Hospital project and coordination with the new Laguna Honda hospital replacement project.

John Muir Medical Center Hospital Expansion, Walnut Creek, CA ($230M) - Turner
OSHPD – Pre-con services.
Addition of 429,000 sf 5-story tower and remodel of existing regional Trauma hospital including helipad and new Central Plant. Remodel consists of new Emergency Department and phased construction. Provided constructability reviews, phasing plans, cost controls and site logistics.

Lucille Packard Children Hospital Expansion, Palo Alto, CA ($70M) - Turner
OSHPD – Lump Sum – Constructability review during early construction phase.

CPMC Cathedral Hill Hospital Preconstruction, San Francisco, CA ($850 M) - Turner
OSHPD – Delivery Method CM at Risk – Adib provided comprehensive Constructability and Estimate Reviews in the latter part of Turner involvement on the project.
Ground up 550 beds for adults and women/children and 2,745,000 SF Women's and Children's Hospital in downtown San Francisco consisting of 19 stories above ground and 6 stories underground with base isolation. This project included a medical office building design-built with a connecting tunnel under Van Ness.

Sr. PM and Healhcare Business Development – Hathaway Dinwiddie (2004-05)
OSHPD – CM at Risk – during Schematics and DD
Responsible for managing small healthcare projects for Stanford ED and UC Clinical Lab. Adib was responsible to provide BD at Hathaway Dinwiddie. Also Adib managed and bid window replacement on 20 story high rise in Nob Hill in SF and performed cursory constructability review for the Millenium condo tower in SF during early design phase.

Sharp Memorial Hospital, San Diego, CA ($185M) – Gilbane (2000-03)
OSHPD – Project Executive - CM at Risk – during Schematics and DD
This multi-phased project includes the construction of a new six and seven-story, 302 bed patient towers of 315,000 s.f. that include 158 Acute/IMCU beds, 24 SICU/CVICU beds, 64 AC/IMCU beds, 24 CCU/MICU beds, 32 AC/IMCU-Ortho beds and shell space for 32 beds for a total of 334 beds; 14 Operating Rooms and Surgery Suite; New Emergency Department, new Hospital Entrance and Lobby; and administrative spaces. In addition to the new hospital addition, and as part of the SB1953, the Critical Care Areas within the existing hospital will be relocated to the new HMP Addition. This project

also includes the Central Plant Expansion to accommodate new hospital replacement, Coordination with other projects on site such as an Ambulatory Care Center and OSHPD 600 stall parking Garage with Helipad.

UC Davis Medical Center, Sacramento, CA ($260M) - Gilbane
OSHPD – Project Executive Agency CM - This Surgery and Emergency Services Pavilion addition at the UC Davis Medical Center. (During Schematics and DD)
This pavilion is a major addition to the Main Hospital building at UC Davis Medical Center. The project under construction will include approximately 420,000 s.f. of building construction and ten acres of site development. It includes Emergency Department, Dietary Department, Radiology, Cardiology and a 24-room Operating Room suite.

Kaiser Walnut Creek Hospital, Walnut Creek, CA – BFH (1989-96)
OSHPD – Design and Construction Administration - New multi-phase, three-story with full basement, 123 bed Hospital addition and replacement, 10 Operating Rooms, Surgery Suite, MRI Suite, Central Sterile, Clinical Lab, 4 C-Section Rooms, 24 LDR Rooms, ICN and other ancillary spaces. The Hospital was built while maintaining the entire existing hospital in operation on a 28-acre site with covered running creek and heritage Oak trees over 200 years old. Existing building had to be demolished in sections, and existing tower was later renovated and connected to the new Hospital.

Kaiser Walnut Creek Central Plant Expansion, Walnut Creek, *CA – BFH*
OSHPD – Design and CA-This Central Plant Expansion, Medical Gas Farm and Emergency Generator Plant. Project involved 3- 350-ton chillers, switchgear room, boiler room and 3-750KW Generators. Enclosure was adjacent to existing Parking garage with utilities running over creek lid in a high density site.

Kaiser Vallejo Medical Center MOB, Vallejo, CA *($50M)* – SOM (1986-89)
Design and CA - This two-story, 166,645 s.f. Medical Office Building with courtyards to accommodate 123 providers on a 38-acre site with on-site parking built with a connecting site utility loop to CUP.

Kaiser Vallejo Medical Center Central Utility Plant, Vallejo, CA - SOM
OSHPD – Design and CA - This Utility tunnel was added to connect to new Central Plant Expansion. Generator Plant

Kaiser San Rafael Medical Center MOB Renovations, San Rafael, CA *($12M)* - BFH
Design and CA - This 8,000 s.f. project, including OR, ER renovation, pharmacy and radiology renovations over 4-year plan.

Coalinga Community Hospital, Coalinga, CA (LHR)
OSHPD – Design and CA - This 56,000 s.f. project involving 35-bed hospital and 56-bed skilled nursing facility replacements to earthquake-damaged facility. Site is an approximately 12-acre parcel on a new development area.

Office Building

State Office Building at Butterfield Way, Sacramento, CA ($171.5M) - Gilbane
Project Executive - Agency CM - Franchise Tax Board Campus addition and renovation project for the State of California, Department of General Services, and Project Management Branch on this project.

This project involves 1 Million SF of new construction and 843,000 s.f. of renovation on 93 acre site. It is located in Sacramento, California, and consists of phased construction with separate contracts for Sitework, a Central Utility Plant ($25M), a Warehouse, four Building Office complex, and a Town Center. This project was designed to be a LEED certified project.

Wells Fargo Card Division Relocation Center, Concord, CA - BFH
Program Manager and Construction Administrator
Fast-track, 265,000 SF Data Center, with 100% access flooring office space and high security project completed without a single change order for the tenant improvement.

Office and Commercial Historic/Seismic Upgrade

Oakland Rotunda Seismic Upgrade, Oakland, CA ($32M) - AD
Design and CA - This 265,000 s.f. historic building over 100 year old with elliptical dome and seven-story elliptical atrium sustained serious damage during Loma Prieta earthquake in 1989. The brick and steel building had to be retrofitted seismically, including replacing mechanical, plumbing, and electrical systems including provided complete tenant improvements as part of a design-build team. The building has multiple commercial tenants on the first floor and multiple office tenants on the upper floors.

Airports

SFO International Airport, San Francisco, CA ($830M) – Skidmore Owings and Merrill – (1996-98)
Sr. Technical coordinator and Construction Administration as Owner's Rep - Over 1.8 million s.f. of base isolation SFO International Terminal Addition, two five-story office buildings, and light rail, BART station additions and elevated roadway fast-track projects, including coordination with adjacent Boarding Areas A and G. This included VE implementation of over $35 million while project being bid on a fast track delivery model. Adib was also responsible to coordinate with Boarding Areas A and G of two different architectural firms and elevated roadways for total construction cost of$2.3 billion.

Hotels/Convention Centers

Marriott Hotel Tower, Santa Clara, CA ($28M) - *JYA*
Design - This 22-story tower consists of new tower with banquet facilities to accommodate 1,500 persons, a restaurant and conference center. Entire tower was designed as reinforced concrete structure with post tension slab and pre-fabricated EIFS system as the exterior skin.

Original Moscone Convention Center, San Francisco, CA – JA/HOK (1980-83)
CA assistance for the tub design by HOK/IM Pei at 40 feet below Howard and provided punch list for the entire building.

Other Education Facilities

Foothill and De Anza Community Colleges in Los Altos and Cupertino, CA ($275M) - Gilbane
Agency CM - Measure "E" Bond improvements for FHDA. This program consists of new building and

existing building renovations over 60 major projects ranging from $1Million to $33 Million.

University of California at Berkeley, Berkeley, CA - JY
Design - Renovation projects, including Julia Morgan's Hearst Gymnasium, Manville Hall, and Administration renovations.

EDUCATION/LICENSE

Bachelor of Science, Architecture, Cogswell College, San Clara, (formerly in SF) CA
California Licensed Architect
UC Berkeley Extension Art and architecture Courses
Construction Management Certificate - Brown University thru Gilbane

CERTIFICATION

Occupational Health and Safety Administration (OSHA) 30-hour training

PROFESSIONAL AFFILIATIONS

American Institute of Architects (AIA)

OTHER LANGUAGES

Arabic and French

REFERENCES

By Request

Duncan J Sinclair
Quality Alternate

EDUCATION AND BACKGROUND

As the Contractor's Alternate Quality Manager when the W/O JV Quality Manager is not on site, Mr. Sinclair will have the primary responsibility of managing the Contractors Quality Management System. His Duties include ensuring Trade Subcontractor compliance with the projects quality requirements via implementation of specified process controls and acting as the day to day interface between project production and quality management to assure the work conforms to the project requirements. He is responsible for documenting quality compliance and providing senior management with periodic quality reports.

Mr. Sinclair graduated with a BS in Mechanical Engineering from Washington State University in Pullman, Washingtonin 1971. Mr. Sinclair alson earned a Masters in Business Administration from City University of Seattle in 1982. His 30 years of contruction management and quality managaement experience includes implementing project-specific quality mangement programs for a variety of construction projects.

RELEVANT EXPERIENCE

Transbay Transit Center
San Francisco, CA

Pre-Construction on Subcontractor Work Packages and analyze Commissioing Trade Specifications and coorelations to Commissioning Coordinator (CxC) Specification on the Transbay Transit Center Project. Public Works; 2011- present. Total Public Works Projects is 17 years.

Lawrence Livermore National Lab
Livermore, CA

LLNL Building HVAC Controls and Electrical Smart Meters. Construction Superintendent for Johnson Controls, Inc. (JCI) to manage field operations installing Electrical Power and HVAC DDC Controls in selective buildings at the Lawrence Livermore National Labs (LLNL) under Contract with Nuclear National Security Agency (NNSA). Duncan managed electricians and HVAC Controls Techs and field verified completeness, assured quality program compliance, Safety Program adherence & housekeeping while performing electrical power meter installations and HVAC DDC modifications and tracking. Daily Work Permits were written by JCI and approved by LLNL. Duncan verified the Work Permit was implemented and notified the JCI QC & LLNL Inspectors to witness the final installation. Public Works; 2010-2011 - 1 year.

Lawrence Livermore National Lab Livermore, CA

Construction Manager for Jacobs Engineering Group assigned to National Ignition Facility Laser CM Team at Lawrence Livermore National Lab to manage various improvements including renovation of an adjacent 3 story office use for $5M lab support facility. Duncan generated all the required Work Permits that includes Safety precautions, specific installation instructions, & Quality management to tie-in MEP Systems to existing Configured Systems under Engineering Management Control. Duncan was responsible for Safety, Facility Access, and interfaced with project QC Inspectors to confirm compliance to Contract Drawings, & Specifications. Coordinated operations with Facility personnel. Public Works; 2009-2010 - 1 year.

Millennium Tower (301 Mission) ***San Francisco, CA***

This project is a high-end condominium/mixed-use project 60 stories tall. It also includes a 12 story condominium/amenity building connected by a 3-level Atrium/Podium. Mechanical, Electrical, Plumbing and Sprinkler (MEPS) Superintendent coordinating MEPS Subcontractors work and quality compliance, $80M Subcontracts. Monitored, updated and planned the Project schedule for 3 week projections. Reviewed Submittals to confirm compliance with Projects Specifications. Inspect all MEPS installations to insure Quality compliance to Specifications. Managed the RFI process to resolve conflicts in drawings or obtain clarifications. Duncan Coordinated Subs to obtain Temporary Certificate of Occupancy with SFPD. Enforce OSHA, Company Safety and Quality Program requirements. $348 million.

St. Regis Museum Tower ***San Francisco, CA***

A five-star, 42-story mixed-use hotel and condominium project with 269 luxury hotel rooms and 102 high-end condominiums.The project also incorporates the renovation of the existing 9-story historic Williams Building, built in 1907. The renovation included a seismic upgrade and the building will house the hotel's restaurant and kitchen as well as a portion of the African American Cultural Museum. MEPS Superintendent coordinating with $80M MEPS Subcontractors, Owners Rep's and project superintendents for Webcor Builders. Duncan monitored, updated and planned the Project schedule for 3 week projections. Reviewed Submittals and field inspected the MEPS installations for Quality compliance. Write RFI's to resolve conflicts in drawings or obtain clarifications. Duncan coordinated Subs to obtain TCO with City Officials. Enforce OSHA and Company Safety Program. $173 million.

Lawrence Livermore National Lab Livermore, CA

Zone Manager for the Laser Bay for a $5M contract for LLNL to install the major components used as the base equipment for the Laser Beams in the National Ignition Facility (NIF). Duncan was the Field Manager for the Subcontractor with 45 craft performing the installation. Duncan was responsible for Quality Control Management to assure exactness of tolerances and standards for welding and metal finishes, enforces Safety requirements during the installation process. Public Works; 1999-2000 - 1 year

Lawrence Livermore National Lab Livermore, CA

Field Area Manager for Jacobs' $185M self performs activities with Union craft to install the Laser Beam Enclosures. Duncan enforced all Safety Regulations, Personal Protective Equipment, Clean Construction Protocol, Project Labor Agreement, and schedule activities. Duncan was the primary field contact with LLNL personnel for schedule coordination, engineering RFI's, Quality Control, managing non-conformance reports, and safety incidents. Conducted daily coordination with Superintendents, Subcontractors, and the Client to control installation activities in each area and avoid craft conflicts to maintain schedule objectives. Public Works; 2000-2003 - 3 years.

San Francisco City Hall Renovation
San Francisco, CA

SF City Hall Seismic Retrofit & TI Modification-$200M, w/GC: Managed MEPS Subcontractors through design coordination, submittal review, sequential scheduling, Quality management, installation, and start-up. Duncan worked closely with TI Architect to incorporate new systems with existing and new architectural designs. Worked hand in hand with SF DBI by pre-inspecting installations and notifying the Inspectors when systems were ready. Public Works; 1995-1999 - 4 years.

Singapore US Embassy
Livermore, CA

US Fed Government Embassy at Singapore-$50M, w/GC; Stateside coordinator controlling mechanical and electrical vendor's submittal documentation for approval for Quality management, construction installation and systems operations. Write requisitions and submittal requirements for mechanical equipment for purchase orders. Resolve conflicts between overseas site and domestic vendors. Public Works; 1993-1995 - 2 years.

Sharks Hockey Arena
San Jose, CA

San Jose Sharks Ice Hockey Arena-$150M, w/CM; Directed mechanical & plumbing subcontractors to comply with the City DPW ICBO Code requirements with project specifications involving wet and dry HVAC and plumbing including seismic bracing systems. Duncan verified all installation met Contract Specifications & Drawings and equipment start-up and systems operational modes. Assisted SJ DPW on completion of ICBO Plumbing Code required pipe testing and clearances. Duncan had an active ICBO Plumbing Certification from 1988 to 1998. Public Works: 1992-1993 - 1 year.

US Postal Service 860 Main Street
San Francisco, CA

US Postal Service Lost Package Facility and the US Treasury Department. US Post Offices added HVAC & Fire Protection to floors that were modified from open rooms to partitioned offices. US Treasury Dept. upgraded office spaces, Computer Room and Automated check envelope wrapping machine. Duncan performed all Quality Control and code inspections for Fire Protection, plumbing, mechanical and HVAC Controls installations. Public Works: 1991-1992 - 1 year.

Convention Center
San Jose, CA

The San Jose Convention Center is the main convention center for the city of San Jose, California. It is located in close proximity to several others of San Jose's convention and cultural structures. The San Jose McEnery Convention Center provides more than 425,000 square feet of space for conventions and events. Its flexible configuration offers 143,000 square feet of divisible, column-free prime exhibit space, a large ballroom, up to 30 meeting rooms with up to 2,400 theater-style seats and banquet facilities for up to 5,000 persons. In addition, the Convention Center has 30-foot-high finished ceilings, 12 loading bays with drive-on access to the exhibit hall floors, recessed utility boxes with electricity, water and drainage capabilities complete audio-visual, sound and lighting services, cellular, standard and ISDN telephony services and fiber optic and copper cabling throughout the facility with DS-3 high-speed Internet access. As the plumbing and mechanical inspector for O'Brien-Kreitzberg Inc., Duncan inspected all plumbing & mechanical installations to insure project Quality, and code compliance in conjunction with the ICBO Plumbing City Inspector. Active in resolving RFI and Code issues with plumbing Inspector. Duncan had an active ICBO Plumbing Certification from 1988 to 1998. Public Works 1987-1990 - 3 years.

CERTIFICATIONS AND PROFESSIONAL MEMBERSHIPS

US Army Corps of Engineers/NAVFAC Quality Certified, 2012
OSHA 10 & 30 Hour Certified
American Society of Mechanical Engineers; Life Member

Professional Profile for Mario B. Saladana, Webcor/Obayashi Quality Control Specialist

Current Position

Mario B. Saladana serves as a Quality Control Specialist/Senior Superintendent.

Experience

Mario has 35 years of construction experience and 28 years where with Webcor.

Mario has extensive familiarity with construction codes and practices, overseeing subcontractors and with residential, hospitality, and concrete projects.

Mario is familiar with a wide variety of project types and delivery methods.

As a Quality Control Specialist/ Senior Superintendent, Mr. Saldana assumes responsibility for on-site activities including overall coordination and scheduling of subcontractors and self-performed labor, safety, and quality. He develops and manages the schedule to ensure on-time performance. Together with the project management staff, Mr. Saldana collaborates in design, estimating and constructability reviews. He manages subcontractor performance on-site.

Professional Certifications

USACE Construction Quality Management for Contractors Certificate Awarded Oct 2012

Attachments

USACE CQM Certificate

U.S. ARMY CORPS OF ENGINEERS

USACE LEARNING CENTER
HUNTSVILLE, ALABAMA

NAVFAC

CERTIFICATE

Mario Saldana

SW9-02-12-00496

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

San Francisco, California	10/1/2012 -10/2/2012	SW9 - NAVFAC Southwest	Michael Haliburton PMP, PE
Location	Training Date(s)	Instructional District/ NAVFAC	CQM-C Manager
Kugan Panchadsaram	kugan@kugan.com	858-212-2941	
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Director, USACE Learning Center

Professional Profile for Jose Verduzco
Webcor/Obayashi Quality Control Specialist

Current Position

Jose Verduzco serves as a Quality Control Specialist/Assistant Superintendent.

Experience

Jose has extensive familiarity with construction codes and practices.

Jose is familiar with most major construction methods.

As a Quality control Specialist/Assistant Superintendent, Mrs. Verduzco plans, schedules, coordinates, sequences, and monitors procurement and construction activities for field teams. He conducts field reviews to inspect and assure compliance to construction policies, procedures, and standards. He reviews drawings, specifications, and subcontractor submittals and ensures that field staff and subcontractors comply with required safety standards. In addition, Mrs. Verduzco prepares correspondences and reports, generates short interval schedules, and manages self-performed labor. He assumes responsibility for weekly LDR quantities and orders necessary materials and equipment.

Education

Jose holds a Bachelor of Science, Business Management in Commerce, Santa Clara University, Santa Clara, CA 2007

Professional Certifications

USACE Construction Quality Management for Contractors Certificate Awarded Oct 2012

Attachments

USACE CQM Certificate

U.S. ARMY CORPS OF ENGINEERS

USACE LEARNING CENTER
HUNTSVILLE, ALABAMA

NAVFAC

CERTIFICATE

Jose Verduzco

SW9-02-12-00502

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

San Francisco, California	10/1/2012 -10/2/2012	SW9 - NAVFAC Southwest	Michael Haliburton PMP, PE
Location	Training Date(s)	Instructional District/ NAVFAC	COM-C Manager
Kugan Panchadsaram	kugan@kugan.com	858-212-2941	
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Director, USACE Learning Center

Professional Profile for Brian Perez
Webcor/Obayashi Quality Control Specialist

Current Position

Brian Perez serves as a Quality Control Specialist/Assistant Superintendent.

Experience

Brian has extensive San Francisco Building experience.

Brian has been involved in several of Webcor's marquis projects

Brian is familiar with construction codes and practices.

As a Quality control Specialist/Assistant Superintendent, Mr. Perez plans, schedules, coordinates, sequences, and monitors procurement and construction activities for field teams. He conducts field reviews to inspect and assure compliance to construction policies, procedures, and standards. He reviews drawings, specifications, and subcontractor submittals and ensures that field staff and subcontractors comply with required safety standards. In addition, Mr. Perez prepares correspondences and reports, generates short interval schedules, and manages self-performed labor. He assumes responsibility for weekly LDR quantities and orders necessary materials and equipment.

Education

Brian holds an Associate of Science, Fire Science, Diablo Valley College, Pleasant Hill, CA 1998

Professional Certifications

USACE Construction Quality Management for Contractors Certificate Awarded Jan 2012

Attachments

USACE CQM Certificate

U.S. ARMY CORPS OF ENGINEERS

USACE LEARNING CENTER
HUNTSVILLE, ALABAMA

NAVFAC

CERTIFICATE

Brian Perez

SW9-02-12-00062

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

Concord, California	January 26-27, 2012	SW9 - NAVFAC Southwest	Michael Haliburton PMP, PE
Location	Training Date(s)	Instructional District/ NAVFAC	CQM-C Manager
Kugan Panchadsaram	kugan@kugan.com	858-212-2941	
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Director, USACE Learning Center

Professional Profile for Jordan Smith
Webcor/Obayashi Quality Control Specialist

Current Position

Jordan Smith serves as a Quality Control Specialist/Assistant Superintendent.

Experience

Jordan has extensive San Francisco Building experience.

Jordan has been involved in several of Webcor's marquis projects

Jordan is familiar with construction codes and practices.

As a Quality control Specialist/Assistant Superintendent, Mrs. Jordan plans, schedules, coordinates, sequences, and monitors procurement and construction activities for field teams. He conducts field reviews to inspect and assure compliance to construction policies, procedures, and standards. He reviews drawings, specifications, and subcontractor submittals and ensures that field staff and subcontractors comply with required safety standards. In addition, Mrs. Jordan prepares correspondences and reports, generates short interval schedules, and manages self-performed labor. He assumes responsibility for weekly LDR quantities and orders necessary materials and equipment.

Education

Jordan holds a Bachelors of Science, Construction Management, Cal Poly University, Los Posits, CA 2008

Professional Certifications

USACE Construction Quality Management for Contractors Certificate Awarded July 2013

Attachments

USACE CQM Certificate

U.S. ARMY CORPS OF ENGINEERS

USACE LEARNING CENTER
HUNTSVILLE, ALABAMA

NAVFAC

CERTIFICATE

Jordan Smith

SW9-02-13-00319

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

San Francisco, CA	July 10-11, 2013	SW9 - NAVFAC Southwest	Michael Haliburton PMP, PE
Location	Training Date(s)	Instructional District/ NAVFAC	CQM-C Manager
Kugan Panchadsaram	kugan@kugan.com	858-212-2941	
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

Jeffrey D. Dziedzic
Chief, USACE Learning Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE
CQM-C Recertification online course: https://www.myuln.net

2.10 TRADE SUBCONTRACTORS QUALITY CONTROL MEETINGS:

In addition to the Three Phase of Control Meetings, A Trade Subcontractor QC Meeting will be part of the Weekly Trade Subcontractors Meetings held by the Webcor/Obayashi JV Project Superintendent or Project Manager. W/OJV CQC Manager will review with the Trade Subcontractor QC Manager will review current QC issues as a segment of the weekly meeting; addressing the schedule, testing, inspection, re-work log, failed inspection status, short-term schedule of QC activities, project tests, submittal status, factory verification requirements, inspection results and any other QC issues relevant to the current activities.

2.11 DEFINITIONS:

- Project As-Built Drawings – All changes and modifications to the Contract work as required by site conditions and inspections in accordance with the requirements of Section 01 17 20.
- **Contractor -** Webcor/Obayashi Joint Venture ***(WOJV)***
- **Coordination Meeting (Meeting of Mutual Understanding) -** A meeting held after the pre-construction conference for each Trade Work Package and before start of construction. Contractor shall meet with the TJPA Representative and TJPA QA Manager and discuss the Contractor's quality control system as it relates to the work of the trade package. Submit the CQC Plan a minimum of 15 days prior to the coordination meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's management and control with the TJPA Representative's quality assurance. Minutes of the meeting will be prepared by the TJPA Representative, signed by both the Contractor and the TJPA Representative and will become a part of the Contract file. There may be occasions when subsequent conferences will be called by either party to confirm mutual understandings and/or address deficiencies in the CQC system or procedures that may require corrective action by the Contractor.
- **Corrective Action Plan -** A plan of action to correct nonconforming work or practices. A written document submitted by the Trade Subcontractor detailing the Trade Contractor's approach to correct an item of work that fails to conform to the project requirements.
- **Corrective Action Request -** A written request from TJPA to develop a Corrective Action Plan for non-conforming work (TJPA form QA-09-01) that establishes a method for ensuring deficiencies in process or implementation

adversely affecting quality are identified, cause determined, and an action plan to prevent recurrence is documented.

- **CQC Field Specialist -** specialized personnel to implement the CQC Plan be responsible to the CQC System Manager, be physically present at the construction site during work on their areas of responsibility, and have the necessary education or experience. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the CQC Plan.

- **CQC Manager** – The Webcor/Obayashi JV Manager who is responsible for managing the Contractor's CQC System.

- **CQC Manager's Monthly CQC Report -** A section of the Contractors monthly written report prepared and submitted by the CQC Manager which reports monthly CQC activities.

- **CQC Plan -** Webcor/Obayashi JV written quality management plan that meets the requirements of the TJPA Program QMS The means by which Webcor/Obayashi JV (the Contractor/CQC) and its Trade Subcontractors (QC) ensure project quality.

- D**aily Contractor Quality Control Report -** A daily written report providing evidence that required quality control activities and tests have been performed including the work of Trade Subcontractors and Suppliers. These reports shall address deficient features and include a statement that equipment and materials incorporated in the work and workmanship comply with the Contract. These reports shall be within 5 working days after the date covered by the report. Reports shall be reviewed for completeness and accuracy, revised, signed and dated by the CQC System Manager. Reports shall be prepared by all subordinate quality control personnel and be included within the CQC System Manager's report.

- **Definable Feature of Work (DFOW)** - A definable feature of work is a task that is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the Specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting and updated as more packages are awarded.

- **Federal Transit Administration (FTA) -** An administration within the U.S. Department of Transportation that provides stewardship to support a variety of locally planned, constructed, and operated public transportation systems throughout the United States.

- **Initial Phase Checklist –** A checklist prepared for each Definable Feature of Work (DFOW) in the Initial work Phase per 01 14 00 1.9.C.
- **Master Definable Feature of Work List -** The project list definable features of work for all trade subcontractors maintained by the Webcor/Obayashi JV CQC Manager.
- **Nonconformance Report –** A written report entered in BIM 360 Field Systems describing non-conforming Work.
- **Nonconforming Work** – Work that is unsatisfactory, faulty, defective, or deficient; Work that does not conform to the requirements of the Contract Documents; Work that does not meet the requirements of inspection, reference standards, tests, or approval referred to in the Contract Documents; or Work that has been damaged prior to Final Completion.

- **Phase 1: Preparatory Phase** – A controlled activity including a meeting conducted by the Webcor/Obayashi JV CQC Manager and ***with*** the Trade Subcontractors CQC Manager, the Subcontractor's Production Team, Trade Subcontractors Representatives, Inspectors, and TJPA representatives. This is the first of the three phases of control where all requirements of the work: drawings, specifications, submittals, RFI's, installation and coordination issues are reviewed before beginning any Definable Feature of Work (DFOW).

- **Phase 2: Initial** – A controlled activity including a meeting conducted by the Webcor/Obayashi JV CQC Manager with the Trade Subcontractors CQC Manager, the Subcontractor's Production Team, Trade Subcontractors Representatives, Inspectors, and TJPA representatives is held immediately prior to the start of the work. Using the meeting minutes from the Preparatory Phase meeting, this meeting transfers the information and requirements and agreements to the crews performing the work.

- **Phase 3: Follow-up Phase** Daily checks performed by the trade subcontractor QC an QC specialists and verified by QC System Manager to assure that control activities, including control testing, are providing compliance with contract requirements, until completion of that particular feature of work. Report the checks in the Daily QC report and upload to the DFOW records.

- **Preparatory Phase Checklist -** A checklist prepared by the CQC Manager for each Definable Feature of Work (DFOW) in the Preparatory Phase per 01 14 00 1.9.B.
- **Quality** - Conformance to the requirements established by the contract documents.
- **Quality Control Plan -** An approved written plan which includes plans, procedures, and organization necessary to produce an end product that complies with the Contract requirements. The plan covers all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence
- **Quality Inspection** - An Inspection of the work performed as the work progresses or prior to calling for an Agency, Code or Special Inspection to confirm the work meets the requirements of the Contract Documents. Contractor shall verify all dimensions in the field and shall check all field conditions continuously during construction. Contractor shall inspect related and appurtenant work and report in writing to the TJPA Representative any conditions that will prevent proper completion of the Work in accordance with the requirements of the Contract.
- **Quality Management -–** Management of Quality Control and Quality Assurance activities instituted to achieve the quality levels established by the contract documents.
- **Quality Management System Manual -** Provides specific requirements for Program implementation based upon the Program Quality Policy and the FTA Quality Assurance and Quality Control Guidelines and is the guide for all members of the Program Management Team to deliver a project that meets the highest quality standards (reference: Transbay Transit Center QMSM, Introduction, page 1).
- **Submittal Log -** A written list indicating the status of all Submittals required by the Contract Documents, maintained by the Webcor/Obayashi Joint Venture production team.
- **Technical Specifications –** Divisions 01 through 33 of the project specifications.
- **Three Phases of Control** – The three meetings or actions that bring the Trade Subcontractors CQC Managers, Contractor's Production Team, Inspectors, TJPA representatives and/or field crews together to plan and implement project

quality: The three phases of control include: The Preparatory Phase, Initial Phase and Follow-up Phase.

- **TJPA Construction Management Oversight Manager: -** Turner Construction.
- **TJPA: -** Transbay Transit Center Joint Powers Authority.
- **Trade Subcontractor QC Manager** – The Trade Subcontractor employee who is responsible for managing the Trade Subcontractor's QC System, and reports to the Webcor/Obayashi JV CQC Manager.
- **Trade Subcontractor's QC Plan –** The Trade Subcontractors written quality control plan that meets the requirements of the TJPA Program QMS as appropriate for the Trade Subcontractors scope of work and is the means by which the Trade Subcontractors ensure project quality.
- **Trade Subcontractor's Definable Feature of Work List. -** The list of definable features of the work prepared by the Trade Subcontractors and submitted for review and approval to the Webcor/Obayashi JV CQC Manager
- **Trade Subcontractors Daily Quality Control Report -** The Trade Subcontractors Quality Manager's daily report that describes: the work completed, quality measures implemented, testing and inspections performed, rework items identified, and deliveries received and as-built drawings updated. (See Tab 12 "Forms" Trade Subcontractors Daily Quality Control Report).
- ***BIM 360*** **–** Field ***Web-Based Data*** Management Software for construction. BIM 360 Systems combines mobile technologies and BIM at the point of construction with reporting for management. BIM 360 Field Systems field management software uses a combination of technologies including the Internet, tablets, and email-capable phones. Licensed users must have a high-speed Internet connection in the office and are responsible for procuring the necessary hardware required for field staff to use the software. All Subcontractors are required to use the BIM 360 Field Systems software, as described in Specification Section 01 31 25 (The field management system will be used to manage CM/GC and Subcontractor quality control inspection and test processes including CM/GC and Subcontractor quality control inspection reports, CM/GC and subcontractor quality control inspection request, nonconforming conditions, punch list, and incomplete items list. The field management system will also be used to manage the commission process, documenting the completion of commissioning-related tests and the resolution of any identified deficiencies). Reporting features include Field Condition Reports, Inspection Requests, Nonconformance Reports and Punch lists.

W/O JV Transbay Terminal Center
DFOW List
Revised 02/021/2013

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BSE-001	SX-BB42160, SX-BB52100	TG03	TG0300-170 - Traffic Control TG0300-172 - Traffic Control Minna and Natoma TG0300-173 - Traffic Control Howard St. Gate TG0300-174 - Traffic Control Beale St. TG0300-177 - Traffic Control PG&E Phase II at Fremont St.	Traffic Control	5/11/2011	5/11/2011	Daily Report
BSE-002	SX-BB51900, SX-BB52000	TG03		Pre-Trench	3/30/2011	3/30/2011	Daily Report
BSE-003	SX-BB43140, SX-BB51600	TG03	TG0300-300 - Pile Removal - Trial Extraction Plan and Design Report	Test Pile Extraction	3/28/2011	3/29/2011	Daily Report
BSE-004	SX-BB51700, SX-BB51800	TG03	TG0300-310 - Pile Removal - Production Extraction Plan TG0300-311 - Existing Pile Extraction Documentation	Pile Extraction Production	4/11/2011	4/11/2011	Daily Report
BSE-005	SX-BB52400, SX-BB52500	TG03		Test CDSM Shoring Wall	5/2/2011	5/2/2011, 7/7/2011	Daily Report
BSE-006	SX-BB52600, SX-BB52700	TG03	TG0300-410 - Struct.l Steel - Part 1 TG0300-411 - Struct. Steel - Qualifications of Welders TG0300-412 - Struct. Steel - Mfc.'s Submittals (On-going) TG0300-413 - Struct. Steel - Contractor's QA Plan & Inspecor Certs TG0300-414 - Struct. Steel - Add'l Weld Procedures TG0300-415 - Struct. Steel - Add'l Welding Wire Product Data TG0300-416 - Struct. Steel - Add'l Weld Procedure - 30 Degree Welding TG0300-580 - Shoring Wall TG0300-581 - Shoring Wall - LEED Submittal TG0300-582 - BBI - Shoring Wall - CDSM Test Section No. 2 (Zone 1) TG0300-583 - CDSM Wall Corrective Action Plans TG0300-584 - CDSM Wall Beam #859 Alignment Corrective Action Plan TG0300-585 - CSSM Corrective Action - Resplicing Soldier Piles TG0300-590 - Shoring Wall - Record Doc.	CDSM Shoring Wall Production	6/1/2011	7/7/2011	Daily Report
BSE-007	SX-BB52800, SX-BB52900	TG03	TG0300-380 - Concrete - General Site Mix Design TG0300-381 - Concrete - CLSM Mix Design TG0300-382 - Concrete - CLSM Mix Designs - Buttress Shoring Wall & Pile Extraction TG0300-383 - Concrete - CLSM & Concrete Mix Designs - Buttress Shoring Work Pad TG0300-385 - Buttress Concrete - Trial Batch Program TG0300-386 - Buttress Concrete - Type 'B' Secondary Shaft Mix Design TG0300-387 - Buttress Concrete - Primary Shaft Buttress Mix Designs TG0300-388 - Buttress Concree - Primary Shaft Buttress Mix Designs - Add'l Mixes TG0300-389 - Buttress Concrete - Sechelt Coarse Aggregate TG0300-390 - Buttress Concrete - LEED TG0300-391 - Buttress Concrete - Primary Shaft Buttress Mix Designs - Add'l Mixes II TG0300-400 - Buttress Concrete - Closeout TG0300-600 - Drilled Shafts TG0300-601 - Drilled Shafts - Installation Plan - Supplemental Submittals TG0300-610 - Drilled Shafts - Close Out	Install Buttress Shafts	8/30/2011	9/13/2011	Daily Report
BSE-008	SX-BB53000, SX-BB53100	TG03	TG0300-320 - Rebar - Informational Submittals and buttress Shop Dwgs.	Buttress Rebar	8/1/2011	10/26/2011, 10/31/2011	Daily Report
BSE-009	UT-203801, UT-203901	TG03	TG0300-901 - CR T-017R1 PG&E Phase II Work at First St. TG0300-903 - PG&E Phase II Work at Fremont St.	PG&E Phase 2 Infrastructure	10/18/2011	10/19/2011	Daily Report
BSE-010	SX-BB10780, SX-BB10880	TG03	Complete	Demo Basement	11/9/2011	11/28/2011, 6/11/2011	Daily Report

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BSE-011	SX-BB17300, SX-BB53400	TG03	TG0300-490 - Geotechnical Instrumentation & Monitoring TG0300-491 - Internal Bracing Performance Monitoring TG0300-540 - Internal Bracing - Engineer & Peer Reviewer Information & Qualifications TG0300-541 - Internal Bracing - 50% Design Dwgs & Calculations TG0300-542 - Internal Bracing - 100% Design TG0300-543 - Internal Bracing - Installer Qualification, QC/Construction, & Inspection Plan TG0300-544 - Internal Bracing - Manufacturer's Certifications or Coupon Testing TG0300-545 - Internal Bracing - Preloading Procedures TG0300-546 - Internal Bracing - Qualifications of Welders TG0300-547 - Internal Bracing - Welding Procedures TG0300-548 - Internal Bracing - Welding Procedures (Shop Welding) TG0300-549 - Internal Bracing - Welding Procedures - Add'l TG0300-550 - Internal Bracing - Re-Bracing TG0300-551 - Internal Bracing Erection Dwgs.	Install Walers (Internal Bracing)	11/15/2011	1/13/2012	Daily Report
BSE-012	SX-BB10680, SX-BB52300	TG03	TG0300-420 - Mass Excavation - Qualified Person and Quality Plan TG0300-430 - Mass Exc. - Material Samples TG0300-440 - Mass Exc. - Material Backfill TG0300-450 - Mass Exc. - LEED TG0300-460 - Mass Exc. - Work Plan	Mass Excavation/Wood Pile Extraction	12/14/2011	1/13/2011, 6/15/2012	Daily Report
BSE-013	SX-BB17600, SX-BB53300	TG03	TG0300-280 - Access Trestle TG0300-281 - CLSM Mix for Pin Pile & Trestle Pile Installation TG0300-290 - Access Trestle - Preconstruction Photos	Install Pin Piles	1/25/2012	1/27/2012	Daily Report
BSE-014	SX-BB15200, SX-BB52200	TG03	TG0300-280 - Access Trestle TG0300-281 - CLSM Mix for Pin Pile & Trestle Pile Installation TG0300-290 - Access Trestle - Preconstruction Photos	Zone 1 Trestle (Combined with Pin Piles)	1/25/2012	2/8/2012	Daily Report
BSE-015	SX-BB10620, SX-BB53200	TG03	TG0300-520 - Dewatering TG0300-521 - Dewatering - Initial Installation Report TG0300-522 - Dewatering - System Pump Test TG0300-525 - Dewatering - System Pumping Data (Weekly) TG0300-527 - Dewatering - Pre-trenching Only	Dewatering	3/2/2012	3/7/2012	Daily Report
BSE-016		TG03		Struct Installation	3/7/2012	3/9/2012	Daily Report
BSE-017	SX-BB56312, SX-BB56412	TG03	TG0300-490 - Geotechnical Instrumentation & Monitoring TG0300-491 - Internal Bracing Performance Monitoring TG0300-540 - Internal Bracing - Engineer & Peer Reviewer Information & Qualifications TG0300-541 - Internal Bracing - 50% Design Dwgs & Calculations TG0300-542 - Internal Bracing - 100% Design TG0300-543 - Internal Bracing - Installer Qualification, QC/Construction, & Inspection Plan TG0300-544 - Internal Bracing - Manufacturer's Certifications or Coupon Testing TG0300-545 - Internal Bracing - Preloading Procedures TG0300-546 - Internal Bracing - Qualifications of Welders TG0300-547 - Internal Bracing - Welding Procedures TG0300-548 - Internal Bracing - Welding Procedures (Shop Welding) TG0300-549 - Internal Bracing - Welding Procedures - Add'l TG0300-550 - Internal Bracing - Re-Bracing TG0300-551 - Internal Bracing Erection Dwgs.	Trestle Struts / Supports (Part of Bracing)	3/15/2012	3/16/2012	Daily Report
BSE-018		TG03		Trestle Deck	4/20/2012	4/20/2012	Daily Report
BSE-018	SX-BB56912, SXBB75012	TG03	TG0300-281 - CLSM Mix for Pin Pile & Trestle Pile Installation TG0300-283 BSE Trestle Pile Material Product Data TG0300-290 - Access Trestle - Preconstruction Photos	Trestle Superstructure	4/20/2012	4/20/2012	Daily Report
BSE-019	SX-BB17100, SX-BB17700	TG03		Remove Struts			

W/O JV Transbay Terminal Center
DFOW List
Revised 02/021/2013

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BSE-020	BG-BB12300, BG-BB42220	TG03	TG0300-620 - Micropiles TG0300-630 - Micropiles - Performance & Proof Test TG0300-640 - Micropiles - Grout Test	Test Micropiles	10/12/2012	12/6/2012	Daily Report
BSE-021	BG-BB42320, BG-BB42420	TG03	TG0300-620 - Micropiles - work Plan and Schedule, contractor Qualifications, Product Data, Equipment Descriptions, Installation Procedures, Working Drawings & calcs. TG0300-630 - Micropiles - Performance & Proof Test TG0300-640 - Micropiles - Grout Test	Micropile Production	10/12/2012	10/30/2012	Daily Report
BSE-022	SX-BB20800, SX-BB20900	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	First Street Bridge	4/4/2012	4/5/2013	Daily Report
BSE-023	SX-BB21000, SX-BB21100	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	First Street Bridge Utilities			Daily Report

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BSE-024	SX-BB48420, SX-BB48520	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	Fremont Street Bridge	4/4/2012	4/5/2012	Daily Report
BSE-025	SX-BB48620, SX-BB48720	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	Fremont Street Bridge Utilities			Daily Report
BSE-026	SX-BB48220, SX-BB43500	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	Beale Street Bridge	4/4/2012	9/10/2013	Daily Report

W/O JV Transbay Terminal Center
DFOW List
Revised 02/021/2013

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BSE-027	SX-BB53800, SX-BB53900	TG03	TG0300-200 - Temp Bridges - Qualifications Data TG0300-201 - Temp Bridges - Struct. Dwgs & Calc TG0300-202 - Temp Bridges - Peer Review TG0300-203 - Temp Bridges - Utility Supports TG0300-204 - Temp Bridges - Traffic Plan - First, Fremon, Beale Streets TG0300-205 - Temp Bridges Geometrics - First, Fremont, Beale Streets TG0300-210 - Temp Bridges - Product Data TG0300-215 - Temp Bridges - Misc. Materials TG0300-220 - MUNI OCS Installation Plan Beale St. TG0300-230 - Temp Bridges - MUNI OCS Installation Plan First St. TG0300-240 - Temp Bridges - Welder AWS Cert. TG0300-244 - Temp Bridges - Steel Manufacturers Certificates or Coupon Tests TG0300-248 - Temp Bridges - Concrete Mix Designs TG0300-250 - Temp Bridges - Rebar Manufacturer Certificates TG0300-260 - Temp Bridges - Preconstruction Photos First St. TG0300-264 - Temp Bridges - Preconstruction Photos Fremont St. TG0300-268 - Temp Bridges - Preconstruction Photos Beale St.	Beale Street Bridge Utilities	4/4/2012	9/10/2013	Daily Report
BSE-028	BG-BB11100, BG-BB42120	TG03	TG0300-340 - Rebar Shop Dwgs - Mud Slab TG0300-350 - Mud Slab Concrete - Submittal Schedule TG0300-355 - Mud Slab Concrete - Mix Design TG0300-360 - Mud Slab Concrete - Joint Locations TG0300-370 - Mud Slab Concrete - Hazardous Materials	FRP Concrete Mud Slab	12/20/2012	1/23/2013	Daily Report
BSE-029	BG-BB10600, BG-BB42520	TG03		Struct. Removal			

W/O JV Transbay Terminal Center
DFOW List
Revised 02/021/2013

DFOW Number	Baseline Schedule Activity ID	Specification Section/ Trade Group	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
UT - 4.1-001	UT-002910, UT-003310	TG04.1		Sewer Natoma & Fremont	2/4/2011	2/4/2011	Daily Report
UT - 4.1-002	UT-002610, UT-002810	TG04.1		Water Natoma & Fremont Street	1/13/2012	1/13/2012	Daily Report
UT - 4.2-001	UT-213800, UT-214500	TG04.2	TG0402-020-Dewatering Plan TG0434-024-Proposed Method of Ptholing TG0404-003-Formwork Material TG0434-002-Pipe Bedding (Crushed Rock)-Sample TG0434-003-Pipe Bedding (Crushed Rock)-Test Reports TG0434-005-Shoring Plan by Licensed CA Engineer	Trench and Excavation (AWSS)	3/26/2012	4/2/2012	Daily Report
UT - 4.2-002	UT-208000, UT-214600	TG04.2	TG0402-013-Welder Certification TG0402-008-Sample 8" pipe w/welded stops	Pipe Stop Welding (AWSS)	3/26/2012	4/2/2012	Daily Report
UT - 4.2-003	UT-208100, UT-208200	TG04.2	TG0402-016 M Squared - Cast in Place Valve Vault	CIP Concrete	6/7/2012	7/20/2012	Daily Report
UT - 4.2-004	UT-208300, UT-208400	TG04.2	TG0402-001 M Squared - Ductile Iron Pipe TG0402-006 M Squared - Pipe End Seal TG0402-008 M Squared - Sample 8" pipe w/welded stops TG0402-027 M Squared - Pipe Links and Sleeves TG0402-029 M Squared - Pipe Bedding Pea Gravel TG0406-008 M Squared - Steel Pipe Material TG0406-009 M Squared - Pipe Factory Test Results	Pipe Installation (AWSS)	3/26/2012	4/2/2012	Daily Report
UT - 4.2-005	UT-208500, UT-208600	TG04.2		Testing and Comissioning (AWSS)			
UT - 4.3-001	UT-030500, UT-030600	TG04.3		Water Howard and Beale Streets	1/13/2011	1/13/2011	Daily Report
UT - 4.4-001	UT-203700, UT-203800	TG04.4		AWSS Cap	3/3/2011	3/3/2011	Daily Report
UT - 4.4-002	UT-041000, UT-041100	TG04.4		Sewer on Natoma	2/4/2011	2/4/2011	Daily Report
UT - 4.4-003	UT-041400, UT-041500	TG04.4		Water on Natoma, First Streets	1/13/2011	1/13/2011	Daily Report
UT - 4.6-001	UT-002830, UT-002930	TG04.6		Pipe Installation Sewer/Sludge	6/21/2012	6/25/2012	Daily Report
UT - 4.6-002	UT-002830, UT-002930	TG04.6		Testing & Comissioning Sewer/Sludge	6/21/2012	6/25/2012	Daily Report
UT - 4.6-003	UT-002830, UT-002930	TG04.6		Trench and Excavation Sewer/Sludge	6/21/2012	6/25/2012	Daily Report

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BGP-001	TBD	02 41 02	02 41 02 - 1.6	Shoring Wall Demolition			Daily Report
BGP-002	BGS01-1140	03 xx xx	03 xx xx	Concrete-Forms/Place, Protection Slab	4/19/2013	7/31/2013	Daily Report
BGP-003	BGS01-1130	03 xx xx	03 xx xx	Concrete-Forms/Rebar/Structural Embeds/Place, Foundation Slab	7/24/2013	8/1/2013	Daily Report
BGP-004	BGS01-1160	03 30 20	03 30 20 - 1.3	Concrete-Place, Foundation Slab	8/1/2013		Daily Report
BGP-005	BGS01-5160, BGS01-5170	03 xx xx	03 xx xx	Concrete-Forms/Rebar/Structural Embeds/Place, Lower Concrourse			Daily Report
BGP-006	BGS01-4220	03 15 00	03 15 00 - 1.4	Concrete-Waterstop, Install			Daily Report
BGP-007	TBD	05 50 10	05 50 10 - 1.4	Metals-Pre Fabrication	3/28/2013		Daily Report
BGP-008	TBD	05 50 10	05 50 10 - 1.4	Metals-Install			Daily Report
BGP-009	TBD	07 09 16	07 09 16 - 1.4	T&MP-Seismic Joint Assemblies, Mock up			Daily Report
BGP-010	TBD	07 09 16	07 09 16 - 1.4	T&MP-Seismic Joint Assemblies, Install			Daily Report
BGP-011	TBD	07 12 10	07 12 10 - 1.4	T&MP-Waterproofing, Mud Slab Penetrations	1/21/2013	1/22/2013	Daily Report
BGP-012	TBD	07 12 10	07 12 10 - 1.4	T&MP-Waterproofing, Below Grade Package			Daily Report
BGP-013	TBD	Sections 22 xx xx, 23 xx xx, 26 xx xx, 27 xx xx, 28 xx xx	Sections 22 xx xx, 23 xx xx, 26 xx xx, 27 xx xx, 28 xx xx	MEP - Mechanical Piping & Drainage; Electrical Raceway & Boxes; Communications Ducts & Raceways; and Fire Management System			Daily Report
BGP-014	TBD	23 57 34 Note: - includes associated work covered under Section 31 23 34, Trenching and Backfill	23 57 34 - 1.4 Note: - includes associated work covered under Section 31 23 34, Trenching and Backfill	HVAC-Ground Loop Heat Exchanger, Install / Testing / Thermal Conductivity Analysis / Water Treatment / Commissioning	2/25/2013	3/18/2013	Daily Report
BGP-015	TBD	26 05 27 - 1.4	26 05 27 - 1.4	Electrical-Grounding System, Installation and Testing	1/9/2013	1/22/2013	Daily Report

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
BRA-001	TBD		TBD	Cast Nodes			Daily Report

DFOW Number	Baseline Schedule Activity ID	Specification Section	Required Submittals	Discription/Feature of Work	Preparatory Phase Date	Initial Phase Date	Follow Through Phase Date
SSS-001	TBD	05 10 00	TBD	All Structural Steel			Daily Report
SSS-002	TBS	05 10 00	TBD	Elevator Guiderail Support Framing			Daily Report
SSS-003	TBS	5 10 00	TBD	Escalator Support			Daily Report
SSS-004	TBS	5 10 00	TBD	Stair Support Framing			Daily Report
SSS-005	TBS	5 10 00	TBD	Metal Decking Studs			Daily Report
SSS-006	TBS	5 10 00	TBD	Light Columns and Rings			Daily Report
SSS-007	TBD	5 10 00	TBD	OCS Attachement			Daily Report
SSS-008	TBD	5 10 00	TBD	Removal of Construction Trestle			Daily Report

PREPARATORY PHASE CHECKLIST

(CONTINUED ON SECOND PAGE)

SPEC SECTION	DATE
Enter Spec Section # Here	Enter Date (DD/MMM/YY)

CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
Enter Cnt# Here	Enter DFOW Here	Enter Sched Act ID Here	Enter Index# Here

PERSONNEL PRESENT

GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES ☐ NO ☐

NAME	POSITION	COMPANY/GOVERNMENT

SUBMITTALS

REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES ☐ NO ☐

IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____

ARE ALL MATERIALS ON HAND? YES ☐ NO ☐

IF NO, WHAT ITEMS ARE MISSING? _____

CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)

COMMENTS: _____

MATERIAL STORAGE

ARE MATERIALS STORED PROPERLY? YES ☐ NO ☐

IF NO, WHAT ACTION IS TAKEN? _____

SPECIFICATIONS

REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____

DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____

CLARIFY ANY DIFFERENCES. _____

PRELIMINARY WORK & PERMITS

ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE.

IF NOT, WHAT ACTION IS TAKEN? _____

4296/2B (9/98) SHEET 1 OF 2

TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM.
	WHEN REQUIRED?
	WHERE REQUIRED?
	REVIEW TESTING PLAN.
	HAS TEST FACILITIES BEEN APPROVED?
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? YES ☐ NO ☐ REVIEW APPLICABLE PORTION OF EM 385-1-1.
MEETING COMMENTS	NAVY/ROICC COMMENTS DURING MEETING.
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS:

DATE

INITIAL PHASE CHECKLIST

		SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #

PERSONNEL PRESENT

GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES ☐ NO ☐

NAME	POSITION	COMPANY/GOVERNMENT

PROCEDURE COMPLIANCE

IDENTIFIY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS.

COMMENTS:

PRELIMINARY WORK

ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?

WORKMANSHIP

ESTABLISH LEVEL OF WORKMANSHIP.

WHERE IS WORK LOCATED?

IS SAMPLE PANEL REQUIRED? YES ☐ NO ☐

WILL THE INIITAL WORK BE CONSIDERED AS A SAMPLE? YES ☐ NO ☐

(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE)

RESOLUTION

RESOLVE ANY DIFFERENCES.

COMMENTS:

CHECK SAFETY

REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS

COMMENTS:

OTHER

OTHER ITEMS OR REMARKS

DATE

3.0 ELEMENT 3 DESIGN CONTROL

3.0 DESIGN CONTROL

3.1 INTRODUCTION

Design control as implied in this Element is limited to Design-Build packages where applicable, as-build drawings and submittal review and coordination by Webcor/Obayashi is primarily accomplished by QC Management, Oversight and coordination design/build package, where specified and ensuring that the design requirements are understood, planning the design interfaces and design verification activities, executing the design verification activities, and controlling design changes through project completion.

The designer shall prepare a plan for design/built activities. It should also identify the various organizational interfaces required between various groups producing and commenting on the design, and specify the information to be documented, transmitted, and regularly reviewed.

Appropriate procedures shall be established for the identification, documentation, review, and approval of all changes and modifications to the design. This responsibility should extend to those responsible for construction or manufacturing to ensure compliance to design requirements and for development of "as-built" documents as part of the design documentation at the end of the project.

Each group responsible for design/built shall provide its own written QC procedures. These include peer review of drawings and check calculations. QA activities are performed to verify compliance to established QC procedures and to determine the effectiveness of the procedures in meeting quality program objectives.

Specification Section 01-14-00 Quality Control Paragraph 1.6 B. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of Trade Subcontractors, offsite fabricators, Suppliers, and purchasing agents. These procedures must be in accordance with Section 01 13 00, Submittals.

3.2 DESIGN BUILD PACKAGES

W/OJV Shall:

- Clearly define requirements of the QA/QC Program in the contract documents.
- Coordinate with owner agency oversight activities in order to assure effectiveness of the QA/QC Program.

- Require additional levels of reporting and/or detail by the DB contractor team.
- Clearly define roles and responsibilities of parties involved early in the bid documents.
- Maintain a proactive and systematic quality program that encompasses all the project lifecycle stages.

3.3 Roles and Responsibilities of the Owner and the Design-Build Trade Subcontractor

QC program effectiveness hinges on clear allocation of roles and responsibilities to the involved parties. QA/QC roles and responsibilities shall be defined clearly in the contract documents; and more importantly, are agreed upon by the parties at the outset. It is recommended that the owner agency conduct audits and testing at every stage of the QC process, and retain ownership of the resident database. TJPA has elected to retain the Quality Assurance (QA) role with the design-build contractor performing the Quality Control (QC) activities.

3.4 As-Built Drawings

Trade Subcontractors have design-build responsibilities (such as the access trestle and traffic bridges), their quality control plans shall include design control for their scope of work.

- The Trade Subcontractors shall keep an accurately marked, up-to-date set of as-built drawings for the work actually installed, and accurately indicate on as-built drawings all site conditions, locations of utilities, work scope changes, changes in dimensions, locations, and elevations of the Work, and changes in details as specified herein and as approved by the TJPA Representative. Trade Subcontractor shall keep the as-built drawings current as the Work is performed.
- Prior to acceptance of the Work, Trade Subcontractor shall furnish to the Webcor/Obayashi JV CQC Manager the final as-built drawings, showing all changes in the Contract Drawings neatly in red ink.
- Trade Subcontractors will delegate responsibility for maintenance, coordination, and accuracy of the as-built drawings to one person on their staff.
- Accuracy of as-built drawings shall be such that future searches for items shown on the Contract Documents may rely on information obtained from the approved as-built drawings.
- Trade Subcontractors shall store as-built drawings apart from documents used for performing the work; keep in a dry, legible condition, and in good order. Label each document “AS-BUILT DRAWINGS— JOB SET” in large, neatly printed letters.
- Trade Subcontractors shall record neatly on the as-built drawings all changes made by clarifications, Change Orders, Requests for Information, and other Modifications to the Contract Documents; and changes to reflect the actual

existing conditions and utility locations references to permanent accessible features of the Work.

- Trade Subcontractors shall clearly describe changes on as-built drawings by note as required.
- Trade Subcontractors shall date all entries, calling attention to the entry by a “cloud” drawing around the area or areas affected.
- Trade Subcontractors shall record in each Specification Section the manufacturer, trade name, catalog number, and supplier of each product and equipment item incorporated into the Work.
- Trade Subcontractors shall furnish a copy of the final shop drawings which have been updated to show actual conditions. Furnish additional drawings as necessary to record deviations from the sizes, locations, and other features of the Work and to locate piping, conduit, ductwork, and similar elements of utility installations by dimensions referenced to permanent accessible features of the Work.
- Trade Subcontractors shall show on the job set of as-built drawings, by dimension accurate to within 1 inch, the centerline of each run of conduits, circuits, piping, ducts, and similar items which are shown schematically on the Contract Drawings but where the final physical arrangement is determined by Trade Subcontractor.
- Trade Subcontractors shall keep as-built drawings up to date during the entire progress of the Work, and provide access for monthly. Updates shall be accurate and current and be done at the time work is performed.
- Trade Subcontractors shall also update and include the revised or newly issued drawings as part of the as built drawings. The work of reproducing and issuing Change Order drawings and updating of as built drawings shall be done as incidental work.

3.5 SUBMITTAL REVIEW

Submittals will be reviewed for coordination, completeness, clarity and coordination with other trades prior to submitting to the TJPA. To obtain approval from the Architect/Engineer/Consultant for all materials, assemblies, equipment and shop drawing submittals required by the contract documents.

The purpose is to install materials, assemblies and equipment only after approval is obtained from the appropriate reviewing Architect/Engineer/Consultant responsible for the particular scope of work.

- Webcor/Obayashi and TJPA process submittals using two different types of project management software. Webcor/Obayashi uses internal system and TJPA uses ConstructWare.
- In WOJV System submittal packages contain submittals and all of the history of the submittal is tracked at the submittal level. The submittal package is simply the nest of the submittals that are attached to it.

- Submittals are transmitted to TJPA from Webcor/Obayashi via WOJV internal system and ConstructWare.
    - The naming format of the PDF submittal is crucial for the transmission to be successful.
- Submittal Actions Status:

ACTION	STATUS
Received	Open
Sent	Submitted
Returned	No Exceptions Taken, Make Corrections Noted, Revise and Resubmit, or Rejected
Forwarded *For the Record*	Same as Returned Status *Submit for record only*

4.0 ELEMENT 4 ***DOCUMENT CONTROL***

4.0 DOCUMENT CONTROL

4.1 INTRODUCTION

Webcor/Obayashi's Document Control process is the means by which information Specified in the Contract Documents to be in Webcor/Obayashi's and the Trade Subcontractors' control are logged, filed, and updated to assure that the organization's staff is using the most current approved documents and they are following the most recently approved procedures and standards and that are compliance with contract and applicable FTA, 15 Element Guidelines.

Procedures for control of project documents and data have been established and shall be maintained. The document control measures should ensure that all relevant documents are current and available to all users who require them.

Control of project documents includes the review of documents by authorized personnel, the distribution and storage of these documents, the elimination of obsolete documents, and control of changes to the documents. Copies of the documents shall be distributed so that they will be available at all locations that need them for effective functioning of the quality management system. Obsolete documents will be promptly eliminated from each work location. Any superseded documents retained for the record will be clearly identified as such. The same authorized personnel who reviewed and approved the original documents, unless the control procedures specifically allow otherwise, should review changes to the documents and data. Changes will be promptly distributed to all locations, along with a master list enumerating the current revisions of each document.

Following are examples of the types of documents requiring control:

- Drawings
- Specifications
- Inspection procedures
- Test procedures
- Special work instructions
- Operational procedures
- QA program and procedures

4.2 SUBMITTAL MANAGEMENT

The Submittal process is designed to assure that all material, assemblies, equipment and shop drawings meet the Transbay Transit Center project requirements and are approved by the TJPA prior to procurement and installation. The Submittal process is the means by which the Trade Subcontractors control product purchasing. This submittal schedule will be developed incrementally and additional submittals will be added as trade packages are awarded and subcontractors are brought on board. Trade Subcontractors will submit their submittal schedules compliance with contract and FTA element guidelines for approval, as required in the Division 00, 01 and technical specifications, prior to the start of work. Element 4 guidelines state that control of project documents includes the review of documents authorized personnel, the distribution and storage of these documents, the elimination of obsolete documents and control of changes to the documents.

4.3 SUBMITTAL MANAGEMENT AND DOCUMENT CONTROL PROCEDURES

The Webcor/Obayashi JV Document Control and Submittal management procedures are part of Webcor/Obayashi's Transbay Transit Center Policy and Procedures Guide. The relevant sections of that guide addressing submittal management and document control are listed below and are included in this section of the Webcor/Obayashi JV CQC Manual:

4.3.1 Document Control

4.3.2 Submittals

4.3.3 Transmittals

4.3.4 Document Distribution matrix

4.3.5 Master project document log

4.3.6 CQC file structure

4.3.1 DOCUMENT CONTROL

The purpose of this outline is to provide guidelines for establishing the appropriate D document control system for the management of the Transbay Transit Center project. This will include the review of documents by authorized personnel.All Controlled documents will go through Document Control to be logged and tracked.

What is a controlled document? A controlled document is defined for this project as any contract document or correspondence which includes i) contract requirements, or ii) scope definition or requirements, including distribution of all Contract Documents (e.g. addendum, ***ASI's*** bulletins, work orders, etc.) either to/from TJPA or Trade Subcontractor. Controlled documents received will be date stamped, logged, saved electronically (in some cases hard copies filed), distributed internally, monitoring response/process time (also referred to as work flow), distribute externally, and track the distribution list.

The following is a list of **controlled document** examples:

- Project Document Distribution – Internal/External
    - Design Documents
    - Construction Document
    - ASI's
    - Sketches- to be issued with ASI's or RFI's and not on their own.
    - Reference Documents
- Submittals, including all LEED submittal requirements and substitutions.
- Design Review Questions (DRQs) - Preconstruction
- Request for Information (RFIs) - Construction
- Daily Reports and Daily Quality Control Reports
- Safety Memos – Logged and tracked
- Schedules and schedule reports
- Permit Inspections
- Payment Applications
- Cash Flow Projections
- Monthly Progress Reports
- Permits
- Original Documents - Custodianship of all original documents in a Master File until they can be boxed and transferred for long term storage.
- Formal Correspondence; including all formal incoming/outgoing correspondence
- Contract Notification Correspondence; delay notification, etc.
- Contract Modifications
- Virtual Building/Models
- Meeting Minutes
- Transmittals
- Requests for Qualification (RFQ)
- Invitation for Bid (IFB)
- Subcontracts & Change Orders
- Long Form/Short Form Purchase Orders (PO)
- SBE/DBE
- Closeout documents

- Reimbursements

Uncontrolled Documents: The following are some examples of uncontrolled documents:

- Email correspondence
- Field Tags – Collected and tracked by Cost Control
- Purchase Order – Managed by Procurement/Cost Control

4.3.2 SUBMITTALS

Submittals will be reviewed for coordination, completeness, clarity and coordination with other trades prior to submitting to the TJPA. To obtain approval from the Architect/Engineer/Consultant for all materials, assemblies, equipment and shop drawing submittals required by the contract documents.

The purpose is to install materials, assemblies and equipment only after approval is obtained from the appropriate reviewing Architect/Engineer/Consultant responsible for the particular scope of work.

- Webcor/Obayashi and TJPA process submittals using two different types of project management software. Webcor/Obayashi uses internal and TJPA uses ConstructWare.
- In WOJV System submittal packages contain submittals and all of the history of the submittal is tracked at the submittal level. The submittal package is simply the nest of the submittals that are attached to it.
- Submittals are transmitted to TJPA from Webcor/Obayashi via WOJV internal system and ConstructWare.
    - The naming format of the PDF submittal is crucial for the transmission to be successful.
- Submittal Actions Status:

ACTION	STATUS
Received	Open
Sent	Submitted
Returned	No Exceptions Taken, Make Corrections Noted, Revise and Resubmit, or Rejected
Forwarded *For the Record*	Same as Returned Status *Submit for record only*

Receive Submittal from Subcontractor – 0-5 days

Was it received on time? If not, have the Trade Scope PM notify the subcontractor that it was late. Is the submittal complete? If not, return the submittal to the subcontractor, transmittal shall include notification that the submittal is incomplete, give a date that the re-submittal is required, and notify them of their potential risk in missing the submittal date.

Review the submittal using the submittal process checklist once the submittal is deemed complete, stamp, (All pages of shop drawings; front page only for product data), distribute to PM, QC and Supt. to review for conformance, completeness, compliance, clarity and transmit to TJPA.

Design Team Review – 12 days Design team will review the submittal. Each layer of review (Architect and Consultants) will stamp ALL pages and return to Webcor/Obayashi's document control manger.

Returned Submittal - 5 days
Reviewed by Document Manager – Notify Author. Document Control will receive e-mail notification that the submittal has been reviewed in ConstructWare. Document Control will forward the e-mail notification along will all attachments to Author.

PM Triage – Notification Sent to Subcontractors

- Revise & Re-submit or Rejected
    - Return R&R or Rejected submittal to author subcontractor. PM will include in the transmittal a due date for re-submittal (5 days). Director will make a case-by-case determination on whether to send a preliminary submittal to other subcontractors for coordination.

- No Exceptions Taken & Make Corrections Noted
    - Email author subcontractor and all affected trade subcontractors the approved submittal. PM will include transmittal with the action required.

Is there a Cost / Schedule Impact or Scope Change?
Subcontractors have 5 days from the returned date to respond with a cost or schedule impact.

Written Notification to Owner, draft RFI to Capture Cost.
Shop drawings, product data, and samples "are not contract documents" per our contract language. Therefore, any change in scope change during submittal review by design team must be captured via ASI. Director should also send written notification to ownership of any scope change incurred from a returned Submittal.

Storing Approved Submittals
Author of submittal will file all documents and correspondence within the storage folder and post the documents electronically.

- Put approved electronic copy of submittal in the designated folder

SUBMITTAL PROCESS CHECKLIST

Submittal Package No.:_____ Date Received:_____

Submittal Name:_____

- ☐ Review each submittal to:
  - ☐ Verify that the submittal's contents match the accompanying transmittal. Did we receive everything listed on the transmittal?
  - ☐ Verify that the submittal's contents are complete per the submittal register. Important: submittal packages need to be complete and should include all information necessary for review. Partial submittals are to be rejected by W/O (if we don't the TJPA will).
  - ☐ Verify that the contents of the submittal are in conformance with the technical specifications and other appropriate contract documents.
  - ○ Is the Submittal a Substitution?
    - ◉ No- Continue Processing Submittal
    - ○ Yes -Reject submittals that are substitution requests- There is a separate process for substitutions.
  - ☐ Verify that the trade subcontractor has checked and coordinated all dimensions, materials, field measurements, with the requirements of the Work and the Contract Documents.
  - ☐ Verify that the submittal complies with the requirements of reference specifications –SFDPW, PG&E etc.
  - ☐ Confirm that all professional certifications (stamp) w/license number and expiration date are provided and signed if required.
  - ☐ Note any variations from the Contract requirements (if there are create an issue in CMiC)
  - No questions Address all questions raised or noted in the submittals; requests to verify dimensions, etc. If there are questions with the submittal:
    - o Can the questions be answered by W/O?
    - o Does an RFI need to be submitted?
    - o Does an issue need to be created in CMiC?
    - o Identify who is responsible for answering the question
  - ☐ Identify all affected and adjacent trades that can be potentially impacted by submittal. Develop an action plan to coordinate submittal information with ALL affected and adjacent trades.
  - ○ If the submittal is complete, stamp the first page of each item. If it is shop drawings, all sheets must be stamped.

Trade Scope Superintendent:_____ Date:_____

Trade Scope PM:_____ Date_____

CQC Manager:_____ Date:_____

Safety Manager:_____ Date:_____

WO0000-011400WO1.10

4.3.3 TRANSMITTALS

To ensure controlled contract documents leaving this office have a record.

Use and receipt of Transmittals is governed by the information herein.
All controlled contract document exchange with Ownership, Design Team, Subcontractor community and Agencies with Jurisdiction/Authority on the project requires a transmittal. All transmittals are created in CMiC with the reference documents listed and uploaded as attachments in CMiC. All transmittals with incoming documents are date stamped, scanned and uploaded with the documents to the pertinent folder and CMiC.

Below is a listing of all contract documents that require a transmittal to capture the exchange/submission:

- Billing
- Submittals
- Design Review reports
- Schedules & Reports
- Cost Estimates
- Drawings
- Close-out documents
- Attic Stock

Transmittal tracking numbers are auto populated in CMiC.

Subject (RE): The subject should be the same description used on other documents (ex. PCI's, Letters, e-mail, etc.) Subject should be descriptive and should include appropriate sub-job, TG Package # and description.

Remarks: ***In the section,*** the first sentence should read

RE: Transbay Transit Center [Preconstruction/TCB/Utilities/Bus Ramps select one] – 30100.[##}

4.3.4 DISTRIBUTION MATRIX

To establish guidelines for who receives what documents and in what form.

All documents received by Document Control will be distributed according to the matrices.

Distribution Matrices have been established for:

1. Internal Distribution
2. External Distribution

Internal Distribution Matrix

Webcor/Obayashi Joint Venture

8/28/13
Rev17

P = Primary
cc = copy

Group	Name	General							Construction				
									Transit Center Bldg				
		Contract Issues	Amendment/CR/CCO	Progress Billings	Schedule	Quality	Safety	Pre Construction	TG03-BSE	TG05-Logistics	TG06-Below Grade	TG07.1 Superstructure	Utility Relocation - 30100.03
		All Correspondence							Field Orders Submittals Inspections RFI's PCO's				
MANAGEMENT	Jes Pedersen	cc											
	Hidetake Taniguchi	cc	cc	cc	cc	cc	cc	cc	cc				
	Steven Humphreys	P	P		cc	cc	cc		cc	cc	cc	cc	cc
	Todd Mercer	cc	cc	cc		cc	cc	cc					
	Kurt Ricci	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
PROJECT ACCT	Jasmin Lautt		cc	P									
PROJECT ASSISTANT / ADMIN	Anne Merics			cc									
	Sarah Boyd			cc					cc	cc	cc	cc	cc
	Julie O'Brien		cc										
CONTROLS/SBE	Ted Williams	cc	cc	cc					cc	cc	cc	cc	cc
SAFETY	Jack Storace						P						
QUALITY CTRL	Adib Sassine					P		cc	cc	cc	cc	cc	cc
	Duncan Sinclair					cc		cc	cc	cc	cc	cc	cc
	Lynn Kowallis					cc		cc	cc	cc	cc	cc	cc
SCHEDULING	Ryan Burke	cc	cc		P	cc	cc	cc	cc	cc	cc	cc	cc
	Jose Ramirez				cc								
VIRTUAL BLDG	Mike Brown							cc					
TRANSIT CENTER BLDG 30100.01	Joanne Verrips		cc		cc	cc	cc		P		cc		
	Spencer Sayles		cc		cc	cc	cc		cc		P		
	Ryan Burke		cc		cc	cc	cc		cc		cc		
	RJ Kjome		cc		cc	cc	cc		cc		cc	cc	
	Mike Spillane		cc		cc	cc	cc		cc		cc		
	Jose Verduzco		cc		cc	cc	cc		cc		cc		
	Mario Saldana		cc		cc	cc	cc		cc	cc	cc		cc
	Jordan Smith		cc		cc	cc	cc		cc		cc	cc	
	Jeff Galoyan		cc		cc	cc	cc				cc	P	
UTILITY RELOCATION 30100.03	Jackson Tukuafu								cc	P	cc	cc	P
BUS RAMPS 30100.05	Precon												
PRECONSTRUCTION 30100P	Jeff Heath				cc			P					
	Tomoya Imai							cc					
	Sihaya Roselle							cc					
	Dennis Blatchford							cc					
	Forrest McLain							cc					
	Tim Maxwell							cc					
	Masashi Kojima							cc					
	Lewis Hampton							cc					
	JD Flaming							cc					

TRANSBAY TRANSIT CENTER
DISTRIBUTION MATRIX
WEBCOR/OBAYASHI
External

P = Primary
CC = Copy

Group	Name	General Correspondence										Trade Specific Correspondence						Precon		Engineering
												Transit Center Bldg 30100.01								
		Contract Issues	Amendments/CO	Progress Billings	Schedule Updates	NOPD/NOPC	Quality	Safety	Cost Estimating/Constructability	LEED	Field Orders/PCO	TG03 - BSE	TG05 - Logistics	TG08 - Glazing	TG19 - Mission Wall	Utility Relocation - 30100.03	Bus Ramps - 30100.05	Bid Packages and Coorespondence	QBDs	RFI's and Submittals
Turner	Steve Rule	P	cc	cc	P	P	cc	cc	cc		cc	cc	P	P	P	P	P	P		
	Jack Adams				cc	cc	P	P				cc	cc	cc	cc	cc	cc			
	Jeremy Lau		cc	cc							cc									
	Gary Krutsch	cc	P	P	cc	cc			cc		P	cc	cc	cc	cc	cc	cc	cc	P	P
	Judy Long															cc			cc	cc
	Jeff Thiel																			
	Stacy Wilson											cc							cc	cc
	Steve Cunningham				cc	cc		cc				cc				cc				
	Turner Doccontrol	cc	cc	cc	cc	cc	cc	cc	cc		cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
PMPC	Kathleen Lassle	cc	cc		cc	cc			P		cc									
	Jim Coughlin	cc	cc		cc	cc			P		cc									
	Joyce Oishi									P										
	Mark O'Dell	cc	cc		cc				cc		cc	cc	cc	cc			cc	cc	cc	
	Dan Alvarado				cc				cc		cc	cc		cc			cc	cc	cc	cc
	Guy Hollins															cc	cc			
	Phil Sandri														cc		cc			
	Bill Seaver																			
	Prasad Nimmigadda								cc											
	Roger Rothenburger	cc	cc						cc		cc	cc								
	Doug Jacobson											cc								
	Larry Zarembinski																			
	Jason Partin				cc															
	PMPC DocControl	cc	cc	cc	cc	cc	cc	cc	cc		cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
	Brian Dykes					cc						P								
	Eddie Phillips	cc	cc	cc					cc		cc							cc		
TJPA	Dennis Turchon																			
	Sara Gigliotti	cc	cc	cc					cc		cc							cc		
	*TJPA DocControl	cc	cc	cc	cc	cc	cc	cc	cc		cc	cc	cc	cc	cc	cc	cc	cc	cc	cc

*All correspondence for TJPA will be sent to Doc. Control and will direct correspondence for action, information, etc.

4.3.5 MASTER PROJECT DOCUMENT LOG AND LIBRARY EXHIBIT

To track and document all drawings and specifications issued throughout the life of the project and where these documents live.

The master project document log will be updated by Document Control as new drawings and specifications are issued.

1. Review master drawing log against drawing log issued with new drawings.
2. Update master drawing log when new documents are received with date, revision number and location of where documents are saved.

NOTE – Master Drawing Log has not been established; PMPC to issue master log.

4.3.6 CQC FILE STRUCTURE

The CQC File Structure is outlined below and will be utilized on this project to store, organize and manage Webcor/Obayashi's CQC Plan, Daily CQC Reports and DFOWs. ***This File Structure will mirror that of Constructware***.

Webcor/Obayashi will organize and store CQC documents such as the CQC Plan, Daily CQC Reports and DFOWs on the F:\ drive in a shared folder***. All required quality records*** will be uploaded into Constructware as the system of record.

CQC documents on the F:\ drive may be found at the following location.

F:\Transbay\WEBCOR\Quality Control

CQC Plans

- CQC Plan Webcor-Obayashi JV:

Daily CQC Reports

- Transbay
  - WEBCOR
    - Quality Control
      - Daily CQC Reports
        - Year
          - Month
            - Day
              - Year/Month/Day – Contractor

DFOW

- Transbay
  - WEBCOR
    - Quality Control
      - DFOW (By Contractor)

- DFOW Number's
  - Preparatory Phase
  - Initial Phase
  - Follow up
  - DFOW Record Documents

CQC Daily Reports in Constructware may be found at the following location.
Constructware CQC Daily Reports
140 - Transit Center Building
- File Director
  - 10 Quality
    - 12 CQC Reports
      - Year
        - Month
          - Day
            - Month/Day/Year – contractor

CQC DFOW Reports in Constructware may be found at the following location.
Constructware CQC DFOW
140 - Transit Center Building
- File Director
  - 10 Quality
    - Definable Features of Work (DFOW)
      - Contractor's DFOW (Ex. BSE-TG03 – BBI)
        - DFOW Log
        - DFOW (By Number and Title)
          - Preparatory Phase
          - Initial Phase
          - Follow up Phase
          - DFOW Record Documents

DFOW – Any Reference to a DFOW requires filing a copy of each Sub's QC ***checklists*** to retrieve follow up documents in F/drive and Constructware.

5.0 ELEMENT 5 ***PURCHASING***

5.1 INTRODUCTION

5.2 CONTROL OF PURCHASED MATERIALS, PARTS AND COMPONENTS

5.0 PURCHASING

5.1 INTRODUCTION

The contract requirements will clearly specify the expectations of WOJV, including relevant standards, drawings, specifications, process requirements, inspection instructions, and approval criteria for materials, processes, and product. The purchasing documents will be reviewed and approved by WOJV and TJPA for adequacy of specified requirements prior to release. WOJV will ensure that the supplier fully understands the contract, agrees with the contract, and has the capacity to perform the work as required.

Where construction or equipment procurement is involved, the contract between WOJV and the supplier will specify the right of WOJV or TJPA authorized representatives to carry out as required inspection and testing at the source and upon receipt to verify that the work or product meets specifications.

Where equipment procurement is involved, WOJV will define, as appropriate, the means and methods for handling, storage, packaging, and delivery of product and as required per contract documents. WOJV will establish procedures to receive, inspect, store, and maintain equipment procured. Any equipment that is damaged or is otherwise unsuited for use will be documented and reported to the supplier or Trade Subcontractor.

Purchasing requirements apply to all subcontractors and suppliers, including construction contractors, and manufacturers. The purpose of this element is to ensure that purchasing requirements are clear and complete, that the supplier or trade subcontractor understands them, and that appropriate quality elements are made part of the contract. Additional requirements, such as on-site required inspection and handling and receiving procedures, may be required for construction or equipment procurement contracts.

Specification Section 01-16-00 Material and equipment referenced in this section.

Immediately upon delivery, Contractor shall inspect shipments to assure compliance with the Contract Documents and reviewed submittals, and to verify that products are undamaged and properly protected from potential damage. Undamaged products shall be delivered to the job site in manufacturers' sealed containers or wrappings with legends and labels intact. Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use. "

5.2 CONTROL OF PURCHASED MATERIALS, PARTS AND COMPONENTS

- As part of bid package development Webcor/Obayashi JV will prepare trade package specific subcontractor prequalification requirements. These prequalification's are submitted to, and reviewed by the TJPA.

The pre-qualification requirements are then included in the project bidding manual.

- Prior to contract award Webcor/Obayashi JV verifies that all trade subcontractors and suppliers meet the project requirements as outlined in the project bidding manual and contract documents.
- Schedule work to be tested or inspected to allow test to be performed within reasonable time.

6.0 ELEMENT 6 ***PRODUCT IDENTIFICATION & TRACEABILITY OF MATERIAL, PARTS & COMPONENTS***

6.1 OVERVIEW

6.2 MATERIAL IDENTIFICATION

6.3 PRODUCT IDENTIFICATION AND TRACEABILITY

6.0 PRODUCT IDENTIFICATION AND TRACEBILITY

6.1 OVERVIEW

W/OJV and Trade Subcontractors will identify and document material and products delivered to the site using the material checklist. Material and products will be reviewed for deficiencies. Once a deficiency is identified by using the material checklist, there is a systematic method to control the item, correct it, and ensure that project quality is not adversely impacted.

When the material or product is identified as deficient it will immediately be segregated. Segregation may occur by physical isolation and cordoning off of work/materials, or conspicuously identified by tags/markings when physical isolation is not possible. BIM 360 will be used to identify deficient materials on equipment and track resolution and closure.

6.2 MATERIAL IDENTIFICATION

Measures shall be established and maintained for identifying and controlling items of production (batch, materials, parts, and components) to prevent the use of incorrect or defective items and to ensure that only correct and acceptable items are used or installed.

Physical identification and control shall be used to the extent possible. Where physical identification is impractical, physical separation, procedural control, or other appropriate means may be employed. Items that fail to possess identification, or items for which record traceability has been lost, or items that do not conform to requirements shall be segregated to prevent use or installation. An item shall be able to be identified by how it is marked or where it is located.

Specification Section 01-16-00 Material and equipment; 1.6 D & E
Immediately upon delivery, Contractor shall inspect shipments to assure compliance with the Contract Documents and reviewed submittals, and to verify that products are undamaged and properly protected from potential damage.

1. Undamaged products shall be delivered to the job site in manufacturers' sealed containers or wrappings with legends and labels intact. Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use.

2. Contractor shall promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements at no increase in Contract Sum without impact to construction schedule.

3. Unsuitable materials and products not removed promptly from the job site by Contractor may be removed by the TJPA. Removal costs shall be paid by Contractor.

4. Contractor shall identify materials and equipment delivered to the Site to permit checking against submittals and shop drawings.

The TJPA may reject as non-complying such material and products that do not bear identification satisfactory to the TJPA as to manufacturer, grade, quality, and other pertinent information.

6.3 PRODUCT IDENTIFICATION & TRACEABILITY

Product identification and traceability shall take place during all the various production phases – from receipt of raw materials, components, or subassemblies through the manufacturing process, to delivery of final products or systems. Traceability shall mean traceable to Transbay Terminal Center project, specific warranty, test report, supplier, point in time, purchase order, or through production. Raw materials shall be traceable back to a particular batch number, shipment number, packing slip, or invoice and shall be accompanied by applicable test data sheets and material certifications. Store room or inventory tracking procedures shall allow for items to be traceable back to a particular order number, batch number, date received, test lot, or other pertinent source. Assemblies in production shall be traceable to Transbay Terminal Project through the use of some form of routing documentation. Routing documentation should contain sufficient manufacturing information, including work instructions, manufacturing standards, tooling, etc. Final assemblies should be clearly marked with project numbers, model numbers, serial numbers, bar codes, etc., so that all pertinent information regarding that assembly may be retrieved.

7.0 ELEMENT 7 ***PROCESS CONTROL***

7.0 PROCESS CONTROL

The contractor quality control process is the means by which W/OJV, Trade Subcontractors and Suppliers shall identify and plan the production and installation processes.

Suppliers and Trade Subcontractors process control shall identify and plan the production and installation processes that directly affect quality and shall ensure these processes are performed under controlled conditions. Special processes, the results of which cannot be verified by subsequent inspection and testing of the product, shall be continuously monitored. To achieve accuracy and consistency in production and installation processes, the quality program shall provide for:

- Documented work instructions where such are needed to ensure quality, use of suitable production and installation equipment, a suitable working environment, personnel qualifications, and conformance with referenced standards/codes and Quality Plans

- Monitoring and controlling of processes and product characteristics during production and installation.

Continuous monitoring and/or conformance with documented procedures is required during special processes, such as welding, nondestructive testing, and heat treatment, where the results will impact quality of the final product, but where inspection after the fact will not reveal the deficiencies.

Ensure that work is performed in the proper sequence. For example, welds should be inspected before they are painted. Earth should be compacted before concrete is poured. Documented work instructions can help with sequence control where there is complex work or when there are multi-disciplined interfaces.

Procedures or guidance to be in conformance with contract and FTA Guidelines for Control of special processes by the Trade Contractors.

Sequence of work must be identified by subcontractor prior to final fabrication on installation. Documented work inspections are required per DFOW Preparatory meeting and will be the basis for process control.

8.0 ELEMENT 8 INSPECTION AND TESTING

8.0 INSPECTION AND TESTING

8.1 QUALITY INSPECTIONS

The Webcor/Obayashi JV Quality Control Manager or CQC Manager's alternate will verify that Trade Subcontractors are meeting the requirements outlined in the TJPA Quality Management System Manual, sections 8.5.1 Inspection and Test Planning and 8.5.2 Contractor Inspection Requirements, to provide documented evidence of inspections, lab reports and test results as required per contract. The Trade Subcontractors will also perform required inspections of all purchased items, perform source inspections, perform first article inspections and perform end process inspections and testing. Webcor &Trade Subcontractors personnel will receive training on methods to physically inspect and document critical structural DFOW components prior to ISI inspection as TJPA's 3rd Party Inspector.

Inspection and Testing- Inspection and testing procedures should be planned and executed as necessary to verify quality. Procedures should be specified, implemented, and the results documented for receiving incoming products, and for final inspection and testing.

When products are delivered to W/OJV, it is the responsibility of W/OJV and trade subcontractor QC Manager to verify they are in conformance with requirements. Verification should be in accordance with the Quality Plan or documented procedures. The extent of receiving inspection can vary with the amount of inspection at the source, the safety criticality of the product, and the confidence in the quality procedures of the supplier.

In process testing and inspection of the work to verify conformance of an item or work activity to specified requirements, should be in a conformance with the Quality Plan on documented procedure process and balance to quality. Both inspection and process monitoring methods shall be performed, as necessary, to ensure that the specified requirements for the control of work processes and the quality of the item are being achieved throughout the duration of the work.

Final inspection and testing should ensure that all specified inspections and tests, including those specified for receipt of product or in-process work, have been carried out and the resulting data meet specifications. Final inspection and testing should be carried out and properly documented to ensure conformance of the finished product to the specifications.

Records should be maintained of the various inspections and tests to provide evidence that the product has passed inspection and/or test with defined acceptance criteria.

8.2 INSPECTION AND TESTING LABORATORY SERVICES (SPEC. SECTION 01 14 00)

Where specified, the TJPA Representative will appoint, employ, and pay for services of an independent firm to perform inspections, testing, and other services specified in individual specification sections and as required by the TJPA Representative.

Where specified, trade subcontractors will appoint, employ, and pay for services of an independent firm to perform inspections, testing, and other services specified in individual specification sections.

Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the TJPA Representative must be used.)

8.3 COORDINATION MEETING (SPEC. SECTION 01 14 00 - 1.7)

After the pre-construction conference for each Trade Work Package, before start of construction, Contractor and Trade subcontractor shall meet with the TJPA Representative and TJPA QA Manager and discuss the Contractor's quality control system as it relates to the work of the trade package. Submit the CQC Plan a minimum of 15 days prior to the coordination meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's management and control with the TJPA Representative's quality assurance. Minutes of the meeting will be prepared by the TJPA Representative, signed by both the Contractor and the TJPA Representative and will become a part of the Contract file. There may be occasions when subsequent conferences will be called by either party to confirm mutual understandings and/or address deficiencies in the CQC system or procedures that may require corrective action by the Contractor.

8.4 TESTS (SPEC. SECTION 01 14 00 1.10)

Trade subontractor shall perform specified or required tests to verify that control measures are adequate to provide a product that conforms to Contract requirements. Upon request, Contractor shall furnish to the TJPA duplicate samples of test specimens for possible testing by the TJPA. Testing includes operation and/or acceptance tests when specified. Procure the services of a certified testing laboratory. Perform the following activities and record and provide the following data.

- Verify that testing procedures comply with contract requirements.

- Verify that facilities and testing equipment are available and comply with testing standards.
- Check test instrument calibration data against certified standards.
- Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- Record results of all tests taken, both passing and failing on the CQC report for the date taken. Specify paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the TJPA Representative, actual test reports may be submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to the TJPA Representative. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this Contract.

1.2. B Trade Subcontractor's QC service responsibilities:

- "Cooperate with testing agency personnel.
- Provide access to the Work.
- Obtain and handle samples of materials and equipment as defined in Section 01 13 00, Submittals.
- Furnish storage and assistance as requested.
- Facilitate inspections and tests.
- Notify the TJPA Representative in writing a minimum of 48 hours, excluding weekends and holidays, but not more than 72 hours prior to expected time for operations requiring as needed testing or inspection services.
- Schedule work to be tested or inspected to allow tests to be performed within reasonable time period.
- Where required, deliver samples to testing agency.
- When a specified test or inspection is not performed due to Contractor's failure to notify the TJPA Representative as specified or when material, or workmanship is not ready at the time specified, the TJPA Representative will establish remedial work, and Contractor shall bear the cost of remedy.
- Take steps necessary to ensure no portion of the work requiring testing or inspection is covered prior to acceptance by authorized parties.

- Ensure that no testing or inspection is scheduled until all approvals for the work have been received. This includes welder's certifications, submittals, design/build engineering stamp, and certification".

1.3. A

"Contractor shall verify all dimensions in the field and shall check all field conditions continuously during construction. Contractor shall inspect related and appurtenant work and report in writing to the TJPA Representative any conditions that will prevent proper completion of the Work in accordance with the requirements of the Contract, Trade Subcontractor's QC service responsibilities."

1.3. B

"Contractor shall be responsible for any Work that is non-conforming. Any required removal, repair, or replacement caused by non-conforming work shall be done by Contractor at no cost to the TJPA. Such nonconforming work will be considered as defective and payments will be withheld in accordance with Section 00 07 00, General Conditions, paragraphs 9.05 and 9.08."

1.3. C

"Contractor shall be responsible for recording all changes and modifications to the Contract work as required by site conditions and inspections in accordance with the requirements of Section 01 17 20, Project As-Built Drawings."

8.5 INDEPENDENT TESTING FIRM REPORTING REQUIREMENTS

1.5. A

"Where specified, the TJPA Representative will appoint, employ, and pay for services of an independent firm to perform inspections, testing, and other services specified in individual specification sections and as required by the TJPA Representative, or the TJPA Representative will perform the inspection and testing services."

"Inspection reports will be submitted promptly by the independent firm in triplicate and distributed, one copy each, to the TJPA Representative, Webcor/Obayashi JV QC Manager, and the code authority having jurisdiction over the Project and will indicate observations and results of tests and compliance or noncompliance with the requirements as defined in the technical specifications."

8.6 TJPA CODE AND AGENCY TESTING AND INSPECTIONS

Work shall be subject to testing and inspection by representatives of the TJPA and other agencies having jurisdiction (Code and Agency Inspections) to assure compliance with all requirements of Section 00 07 00, General Conditions, and Paragraph 8.02 and as per code requirements.

8.7 TJPA Special Inspection and Testing

Where specified, the TJPA Representative will appoint, employ, and pay for services of independent firms to perform inspections, testing, and other services specified in individual specification sections and as required by the TJPA Representative or the TJPA Quality Assurance Representative will perform the inspection and testing services.

8.8 Inspection Request procedure

- The Trade Subcontractors CQC Manager will verify that all prerequisites as defined by the contract specifications are completed prior to Code, Agency or Special Inspections. Inspection Request will be submitted to the Webcor/Obayashi JV CQC Manager or CQC Alternate and the TJPA Construction Management Oversight Manager 48 hours and not more than 72 hours prior to the inspection date. Inspection Requests for Code, Agency and Special Inspections require an “Inspection Request Form” to be completed in BIM 360 Systems by Webcor/Obayashi JV or the Trade Subcontractors CQC Manager. The Trade Subcontractor’s CQC Manager will facilitate onsite inspections, sampling procedures, test reports, and provide notification to the Webcor/Obayashi JV CQC Manager and TJPA representative when inspections fail or test results fall below specified values. Notify Turner if 48 hour notice cannot be met. Inspections will be submitted 48 hours (by 3:00pm) prior to the inspection date.
    - Day 1 3:00pm is cut off time for any inspection on Day 3
    - Thursday 3:00pm is cut off time for any inspection on the weekend or following Monday:
    - Friday 3:00pm is cut off time for any inspection on the following Tuesday or later.

8.9 Test and inspection procedures by Trade Subcontractors

When specified, the Trade Subcontractors shall include as part of their scope all tests to verify that the Work conforms to the Contract Documents and to the Quality Control specification section 01 14 00 Rev 0 paragraph 1.10A Tests. Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product that conforms to Contract requirements. Upon request, Contractor shall furnish to the TJPA Representative duplicate samples of

test specimens for possible testing by the TJPA. Testing includes operation and/or acceptance tests when specified. Procure the services of a certified testing laboratory. Perform the following activities and record and provide the following data:

1. Verify that testing procedures comply with the contract documents-Per Code and Contract Requirements.
2. Verify that all inspection prerequisites are met prior to conducting inspections.
3. Submit a testing and inspection matrix with the design submittals showing all required inspections and the entity responsible for performing the tests or inspections, *per DFOW requirements*.
4. Track inspection and test status.
5. Verify that the facilities and testing equipment are available and comply with the testing standards. As per approved submittals.
6. Trade Contractors and Suppliers shall have documented procedures to ensure test equipment is in calibration and keep updated lists of all equipment requiring calibration. Trade Contractor shall make calibration records available for review.
7. Record results of tests taken, both passing and failing on the trade subcontractor's daily CQC report for the date taken. Specify paragraph reference, location where tests were taken. Maintain a current test results spreadsheet per each different component.
8. When the services of an independent firm are utilized, reports will be submitted promptly by the independent firm in triplicate and distributed, one copy each, for the TJPA Representative, Webcor/Obayashi JV, and the code authority having jurisdiction over the Project and will indicate observations and results of tests and compliance or noncompliance with the Contract.
9. When specified, the Trade Subcontractors shall produce test and inspection plans in accordance with the Program Quality Management System requirements. All testing and measurements specified to be performed by the Trade Subcontractors shall be performed with equipment whose calibration
10. Meets national standards and to documented standards when no national standard exists.
11. Maintain and submit a log indicating the status of the Trade Subcontractors inspections and tests.
12. Verify that facilities and testing equipment are available and comply with testing standards.
13. Check test instrument calibration data against certified standards.

14. Verify that recording forms and the test identification control number system, including all of the test documentation requirements, have been prepared. Upload test records to BIM 360.
15. Record results of all tests taken, both passing and failing, on the CQC report for the date taken. Specify paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the TJPA Representative, actual test reports may be submitted later with a reference to the test number and date taken. Provide directly to the TJPA Representative an information copy of tests performed by an offsite or commercial test facility. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this Contract.
16. WOJV and Subcontractors must confirm activates are ready for inspection prior to ISI start.
17. Verify to the Webcor/Obayashi JV CQC Manager of Trade Subcontractors task completion prior to the work being inspected.
18. Verify to the Webcor/Obayashi JV CQC Manager of Trade Subcontractors task completion prior to requesting final inspections.
19. Facilitate inspections and tests.
20. Cooperate with testing agency personnel.
21. Provide access to the Work.
22. Obtain and handle samples and equipment as defined in section 01 13 00 Submittals. Furnish storage and assistance as requested.
23. Trade Subcontractor shall include within their quality control plan per Specification Section 01 16 00 Material and Equipment, article 1.3 Quality Assurance, procedures for full protection of Work and materials.
24. Where required, deliver samples to testing agency.
25. Take steps to ensure no portion of the work requiring testing or inspection is covered prior to the acceptance by authorized parties.
26. Ensure that no testing or inspection is scheduled until all approvals for the work have been received. This includes welder's certifications, submittals, design/build engineering stamp and certification.
27. Notify the TJPA Representative in writing a minimum of 48 hours. Excluding weekends and holidays, but not more than 72 hours prior to expect time for operations requiring as needed testing and inspections.
28. DFOW task checklist will be implemented to assist with inspections and comply with the required codes and contract requirements.
    A. The frequency of checklist reviews and style of checklist will vary for each DFOW task. The DFOW initial phase process will identify which entity (TJPA, W/O, Subcontractor) is performing what type of checklist review, the

frequency for check list reviews during the initial installation and follow up phases, and the style of checklist reviews.. The base understanding is that, each entity shall maintain records.

i. Subcontractor's:
    1. Procedural Review Checklist.
        a. Confirm that submittals are approved before starting work, confirm that inspections have been scheduled, confirm that inspections as-builds are being maintained, confirm that protection of material is in place.
    2. Material Controls Checklist,
        a. Each sub, for each key sequence, need to identify how they maintain records such that a deficiency in the field can be tracked back to the delivery/fabrication process. A material control checklist is the sub's QC representative review and confirmation that those procedures are being followed.
    3. Completed Installation Technical Verification Checklist,
        a. This is the detailed list of installation requirements that the sub confirms prior to calling for an inspection.

ii. W/O QC:
    1. Procedural Review Checklist
        a. Has the sub completed their technical check list, are they protecting their materials, have they complete a material controls checklist, etc.
    2. Select Installation Technical Verification Checklist
        a. Selected items within a particular W/OJV DFOW task checklist are checked by W/OJV and used to spot check/confirm that the sub's detailed checklist is accurate. Why will these vary? Because with some scopes, i.e. Welding we don't have the accreditation to make any technical evaluations – it will be a procedural review for us. On the other hand, Rebar – it's Quantity, spacing, type of bar – things that can be visually confirmed and therefore we will do some technical reviews.

iii. TJPA:

1. Procedural Review Checklist

8.10 Control Verification and Acceptance Testing Procedures

When specified, The Trade Subcontractors CQC Managers will provide control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the TJPA Representative must be used.).

When specified, specific control verification and acceptance testing procedures will be provided by the Trade Subcontractors as part of the Trade Subcontractors CQC plans, and will be completed as the specification sections are defined and the Trade Subcontractors are added to the project

8.11 Punch-out Inspection

An inspection of the Work will be conducted by the Trade Subcontractor QC Manager and verified by the Webcor/Obayashi JV CQC Manager, near the end of Trade Subcontractor's work. The punch list, entered into BIM 360 Systems, will include items that do not conform to the approved Drawings and Specifications and the estimated date by which the deficiencies will be corrected. A second inspection by the Trade Subcontractor CQC Manager will ascertain that all deficiencies have been corrected. Once this is accomplished the TJPA Representative will be notified that the facility is ready for the TJPA pre-final inspection.

8.12 Pre-final Inspection

The TJPA Representative will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A TJPA Representative pre-final punch list may be developed as a result of this inspection. Webcor/Obayashi JV will ensure that all items on this list have been corrected before notifying the TJPA Representative, so that a final inspection can be scheduled. Items noted on the pre-final inspection will be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph must be accomplished within the time slated for completion of the entire work or any particular increment of the Work if the Project is divided into increments by separate completion dates.

8.13 Final Acceptance Inspection

The CQC System Manager, plus the Contractor's authorized representative and the TJPA Representative must be in attendance at the final acceptance inspection. Additional personnel from affected third parties may also be in attendance. The final acceptance inspection will be formally scheduled by the TJPA Representative based upon results of the pre-final inspection. The TJPA Representative will be notified at least 72 hours prior to the final acceptance inspection and include the Contractor's assurance that all punch list and nonconforming work will be complete and acceptable by the date scheduled for the final acceptance inspection.

Summary

Name	Mud Slab Checklist Details
Description	• Printable version of your QA/QC, Safety, and Commissioning Checklists with responses and comments • Optionally include checklist attachments and details of issues generated from the checklist
Report run on	30 Aug 2013 11:59 AM
Number of pages	2 including this summary page

Parameters

Show attachments: Checklist Details

Include comments: Yes

Include custom fields: Yes

Include issue details: Yes

Include n/a and blank responses: Yes

Include signatures: Yes

Show cover page: Yes

Report name: Mud Slab Checklist Details

Output format: Checklist Details

Show related equipment as: Checklist Details, Equipment Name

Details

ID	000358	**Company**	<not set>
Name	WO - Mud Slab Concrete Pre-Placement Form	**Priority**	Medium
Description		**Status**	Open
Author	lkowallis@webcor.com	**Location**	<Top level>
Created On	30 Aug 2013 11:59 AM		
Tags			

Checklist Items

Item #	Item Text	Response	Comments	# Issues
Mud slab Concrete Pre-Placement Checklist				
MUDS-1	Enter Review Area			0
MUDS-2	Subgrade elevation for 4" slab checked by BBII (+/- 1/2")	Yes		0
MUDS-3	Location and count of pits per latest Drawings	Yes		0
MUDS-4	Location of pits verified and survyed	Yes		0
MUDS-5	Backfill compaction acceptance testing (BY ISI)			0
MUDS-6	Subgrade ready to inspect	Yes		0
MUDS-7	Subgrade acceptance by Arup			0
MUDS-8	Grounding installed and accepted			0
MUDS-9	Geothermal piping installed, tested, backfilled, accepted			0
MUDS-10	Subgrade elevation restored and checked	Yes		0
MUDS-11	Waterproofing/Butyl tape on all penetrations accepted	Yes		0
MUDS-12	Micropiles installed	Yes		0
MUDS-13	Micripiles tested (and/or blocked out)	Yes		0
MUDS-14	Rebar installed and accepted	Yes		0
MUDS-15	Elevation benchmarks established for concrete finishing	Yes		0
MUDS-16	Concrete placement area clearly delineated	Yes		0
MUDS-17	Concrete placement area cleared of all debris	Yes		0
MUDS-18	All micropiles grout tubes filled with grout	Yes		0
MUDS-19	All micropile grout exposed and free of soil and ridges	Yes		0
MUDS-20	Waterproofing protection installed	Yes		0
MUDS-21	Subgrade screed bars, ridges and forms installed	Yes		0

Summary

Name	Waterproofing Checklist Details
Description	• Printable version of your QA/QC, Safety, and Commissioning Checklists with responses and comments • Optionally include checklist attachments and details of issues generated from the checklist
Report run on	30 Aug 2013 12:43 PM
Number of pages	3 including this summary page

Parameters

Show attachments: Checklist Details

Include comments: Yes

Include custom fields: Yes

Include issue details: Yes

Include n/a and blank responses: Yes

Include signatures: Yes

Show cover page: Yes

Report name: Waterproofing Checklist Details

Output format: Checklist Details

Show related equipment as: Checklist Details, Equipment Name

Details

ID	000359	**Company**	<not set>
Name	QC - Grace Subgrade Waterproofing	**Priority**	Medium
Description		**Status**	Open
Author	lkowallis@webcor.com	**Location**	<Top level>
Created On	30 Aug 2013 12:06 PM		
Tags			

Checklist Items

Item #	Item Text	Response	Comments	# Issues
Substrate Sign-Off checklist				
	Enter Review Area			0
C01	Are there any voids greater than .5 inches?	No		0
C02	Is there missing grout around any penetrations?	No		0
C03	Is there loose aggregate?	No		0
C04	Are there sharp protrusions?	No		0
C05	Is there any standing water?	No		0
CO6	Is there substrate more than .5" out of alignment for vertical surfaces?	No		0
Membrane Installation:				
F01	Is the temperature below 25 F (-4 C) during installation?	No		0
F02	Did installer fail to use Tape LT during installation when temperature is less than 55 F (13 C)?	No		0
Tape LT Installation on Membrane:				
G01	Was the surface dirty or have debris on it during installation?	No		0
G02	Was the surface wet during installation?	No		0
G03	Is the release liner still in place after installation?	No		0
Membrane Horizontal Applications:				
H01	Is the HDPE film side faced away from substrate?	No		0
H02	Are the end laps missing the stagger?	No		0
Membrane Horizontal Overlap Requirements				
I01	Is the overlap less than 3" along marked selvedge?	No		0
I02	Is/was the underside of succeeding sheet dirty or wet?	No		0
I03	Is the release liner remaining in the overlap?	No		0
I04	Did the overlap fail to achieve a continuous bond?	No		0

Item #	Item Text	Response	Comments	# Issues
Membrance Vertical Applications:				
J01	Is the HDPE film side faced away from substrate?	No		0
J02	Is/was the underside of succeeding sheet dirty or wet?	No		0
J03	Is the plastic release liner still in place?	No		0
J04	Are the fasteners different than the submittal?	No		0
J05	Are fasteners in selvedge large or high profile?	No		0
Vertical Roll Edges & Cut Edges				
K01	Is the overlap less than 3"?	No		0
K02	Are their contaminants present?	No		0
K03	Is the Tape LT application off center?	No		0
K04	Is the release liner still in place on the LT tape?	No		0
Membrane Repair (Small .5" or less)				
L01	Is the damaged area dirty or otherwise not prep'd for repair?	No		0
L02	Is the damaged area missing Preprufe Tape?	No		0
L03	Is Preprufe Tape installed off center from the damaged area?	No		0
L04	Was the LT Tape release liner left in place?	No		0
Membrane Repair (Large > .5")				
M01	Is the damaged area dirty or otherwise not prep'd for repair?	No		0
M02	Is the damaged area missing a Preprufe membrane?	No		0
M03	Is edge of the repair membrane less than 6" beyond damaged area?	No		0
M04	Are the patched edges missing Preprufe tape?	No		0
M05	Is the Prepruf tape off center from the edge?	No		0
M06	Was the release liner left on the T Tape?	No		0
M07	Did the edges fail to achieve adhesion?	No		0

Summary

Name	Protection slab Pre-placement Checklist Details
Description	• Printable version of your QA/QC, Safety, and Commissioning Checklists with responses and comments • Optionally include checklist attachments and details of issues generated from the checklist
Report run on	30 Aug 2013 12:09 PM
Number of pages	4 including this summary page

Parameters

Show attachments: Checklist Details

Include comments: Yes

Include custom fields: Yes

Include issue details: Yes

Include n/a and blank responses: Yes

Include signatures: Yes

Show cover page: Yes

Report name: Protection slab Pre-placement Checklist Details

Output format: Checklist Details

Show related equipment as: Checklist Details, Equipment Name

Protection slab Pre-placement Checklist Details

Details

ID	000360	**Company**	<not set>
Name	WO - Protection Slab Concrete Pre-Placement Form	**Priority**	Medium
Description		**Status**	Open
Author	lkowallis@webcor.com	**Location**	<Top level>
Created On	30 Aug 2013 12:08 PM		
Tags			

Checklist Items

Item #	Item Text	Response	Comments	# Issues
Protection Slab Concrete Pre-Placement Checklist				
	Enter Review Area			0
PS-1	Horizontal Waterproofing Inst.			0
PS-2	Vertical Waterproofing Inst.			0
PS-3	Survey CJ's/Pour Area Est.			0
PS-4	Horizontal pre-prufe tape @ CJ's			0
PS-5	Vertical pre-prufe tape @ CJ's			0
PS-6	Protection of piles/penetration sleeves installed			0
PS-7	Protection of vertical waterproofing installed			0
PS-8	Protection of Horizontal waterproofing installed			0
PS-9	Pit corners surveyed and vertical line established			0
PS-10	Screeds set to elevation -40.67			0
PS-11	Edge form installed			0
PS-12	Access path for concrete placing crew installed			0
PS-13	Slick-line hose clamp protection discs installed			0
PS-14	Area clear of debris			0
PS-15	Clean soiled membrane			0
PS-16	Obtain as-build survey of mud slab elevations			0
PS-17	Sealed protection slab with foam against spill and bleeding concrete thru joint			0
PS-18	Reference Best check off list for completed items			0
PS-19	Cast Concrete within 56 days from WP membrane installation			0
PS-20	Concrete mix design approved			0
PS-21	SGH inspected WP prior to pour			0
PS-22	Sharp objects are not used in consolidating concrete			0

Item #	Item Text	Response	Comments	# Issues
PS-23	Formwork remains till concrete is 1500 psi			0
Best Waterproofing Installation Checklist				
	Enter Review Area			0
PS-24	CDSM Substrate sign off			0
PS-25	Protection Board - Fastened with Hilti pins at 12" on center			0
PS-26	Protection Board - 4" shingle at end laps and tightly buttted at side laps			0
PS-27	Drainage Composite - Adhesive applied to Protection Board and time allowed to flash off			0
PS-28	Drainage Composite - Extends 3" into gravel bed			0
PS-29	EPS insulation - Adhesive applied to Drainage Composite and time allowed to flash off			0
PS-30	EPS Insulation - No less then 1/4" gap in but joints			0
PS-31	ESP Substrate Sign off			0
PS-32	10 mil Visqueen - Fastened with temporaty Terminatin bar above line of concrete pour			0
PS-33	Grace Preprufe 300R - Fastened with temporatry terminatin bar above line of concrete pour			0
PS-34	Grace Preprufe 300R - 6" Bituthene 3000 back-seal at all laps			0
PS-35	Grace Preprufe 300R - Remove release sheet			0
PS-36	Grace Preprufe Tape - No Fishmouths			0
PS-37	Grace Preprufe Tape - Minimum 6" Liquid Membrane at all end laps before tape installation			0
PS-38	Grace Preprufe Tape - 8" CJ tape centered over all cold joints			0
PS-39	Final Inspection for damage prior to rebar installation			0
PS-40	Final Inspection for damage form installation and concrete pour			0
Pre-Pour Concrete Requirements:				
PS-41	Is release liner remaining on any surface	No		0
PS-42	Did placement crew fail to get training on protection of waterproofing prior placement	No		0
Waterstop - ADCOR ES (General)				
PS-43	Are there 90 degree, or more, bends missing ADCOR ES	No		0
PS-44	Are there damaged sections present	No		0
PS-45	Did ADCOR get wet prior to pouring concrete	No		0
PS-46	Is ADCOR ES encapsulated w/ less than 3" of concrete cover	No		0

Item #	Item Text	Response	Comments	# Issues
PS-47	Is ADCOR ES being stored in opened packaging	No		0
PS-48	Did the disposal of ADCOR ES fail to meet environmental requirements	No		0
PS-49	Is ADCOR ES being used in a movement joint	No		0
Waterstop - ADCOR ES (Control Joints)				
PS-50	Is the concrete surface dirty or have contaminates	No		0
PS-51	Is there debris or loose concrete at the control joint	No		0
PS-52	Are the irregular or unformed surfaces missing a bead of ADCOR ES adhesive	No		0
PS-53	Is the bead of ADCOR ES adhesive at irregular or unformed surfaces less than 1/2"	No		0
PS-54	Is the Adcor ES missing masonry nails	No		0
PS-55	Are the masonry nails less than 1-1/2" long	No		0
PS-56	Are the masonry nails less than 3/4" in diameter	No		0
PS-57	Are the washers at the masonry nails less than 3/4"	No		0
PS-58	Are 3/4 washers missing from the nails	No		0
PS-59	Are the fasteners spaced greater than 12"	No		0
Waterstop - ADCOR ES (Pipe Penetrations)				
PS-60	Was/Is the substrate wet at time of application	No		0
PS-61	Is the penetration missing a bead of ADCOR ES adhesive	No		0
PS-62	Is the bead of ADCOR ES adhesive less than 1/2"	No		0
PS-63	Is the bead un-tooled w/ brush / trowel	No		0
PS-64	Was the Adcor ES applied while adhesive was wet to touch	No		0
Waterstop - ADCOR ES (ES Joints)				
PS-65	Is the ADCOR ES joint missing an overlap	No		0
PS-66	Is the ADCOR ES joint overlap less than 4"	No		0
PS-67	Does overlap fail to adchieve full contact between pieces	No		0

9.0 ELEMENT 9 INSPECTION, MEASURING AND TEST EQUIPMENT

9.0 INSPECTION, MEASURING AND TEST EQUIPEMENT

9.1 INTRODUCTION

Trade Subcontractor and supplier shall comply with this Element as required per contract documents.

9.2 INSPECTION, MEASURING AND TEST EQUIPMENT (M&TE)

- Inspection, measuring, and testing equipment required to carry out inspection and testing shall be identified, controlled, calibrated, and maintained in order to demonstrate the conformance of work to the specified requirements. Provisions shall be made for recalibration of such equipment in a timely manner and documented.

- Inspection, measuring, and test equipment used will meet the standards of accuracy for the measurements which are required. The equipment shall be calibrated according to national standards where available, and to documented standards where no national standards exist. The equipment will be recalibrated at regular intervals, and the recalibration properly documented. A record of the equipment calibration status shall be maintained by the Contractor.

- A schedule of testing equipment that needs periodic and regulatory scheduled calibration shall be required of the contractor(s) and be checked by TJPA QA Representative.

- The equipment shall be properly maintained to ensure its fitness for use. When the equipment is in use, the user shall ensure that the environmental conditions are suitable for the use of the equipment. When inspection, measuring, or test equipment is found to be out of calibration, the validity of previous inspection and test results shall be assessed and documented.

- All calibrated gauges and calibrated testing equipment must be calibrated prior to its use on the project. Periodic calibrations must be performed in accordance with certifying agency requirements and industry practice. The equipment will be properly maintained to ensure its fitness for use. When in use, the user shall ensure that the environmental conditions are suitable for the use of the equipment. When inspection, measuring, or test equipment is found to be out of calibration, the validity of previous inspection and test results shall be assessed and documented.

9.3 CONTROL OF MEASURING AND TEST EQUIPMENT

Inspection, measuring, and test equipment used shall be identified, controlled, calibrated. M&TE shall be properly calibrated and currently certified.

Calibration records and procedures shall meet the following requirements:

- Measuring and test equipment will be positively identified as to its name, calibration lab, date of last calibration and calibration expiration.
- Measuring and test equipment shall be calibrated against standards that have a known, valid relationship to national standards prior to use, and periodically thereafter, if required, to provide for the accurate reporting of quality testing and inspection results. In case no national standard exists, the basis for calibration will be identified and documented.
- The tolerances used in calibration shall be in accordance with the manufacturer's recommendation or as otherwise specified.
- An independent calibration laboratory shall perform all calibration.
- Environmental conditions for calibration shall be consistent with the location where inspection and testing is performed.
- Each subcontractor must maintain a spreadsheet for all calibrated instruments and their re-calibration dates with reminders on when the next calibration is required.
- Calibration shall be performed in accordance with approved calibration procedures. These procedures shall specify the following:
    - Details of equipment type
    - Identification number
    - Location (as required)
    - Calibration method and frequency
    - Acceptance criteria
    - Action to be taken if results are unsatisfactory

9.4 RESOLUTION OF TESTS RESULTS FROM UN-CALIBRATED EQUIPMENT

Results from tests requiring calibrated equipment performed with equipment not currently in calibration shall be suspect. The test equipment used shall be tested and recalibrated. If the equipment is found to be within calibration limits, the test

results shall be accepted. If the equipment is not found to be within calibration limits, the tests results must be verified by other means, or the material in question replaced.

9.5 TEST REPORTING

Inspection and test status are documented in BIM 360 and includes the Trade Subcontractors Daily Quality Control reports.

10.0 ELEMENT 10 INSPECTION, TEST AND OPERATING STATUS

10.1 OVERVIEW

10.2 PROCEDURE

10.0 INSPECTION, TEST AND OPERATING STATUS

10.1 OVERVIEW

Where required by the contract documents, Trade Subcontractors shall provide means for identifying the inspection and test status of work during production and installation. The purpose of this Element is to ensure that only work that has passed the required inspections and tests are accepted.

10.2 PROCEDURE

The test and inspection status shall be identified by means of markings, stamps, tags, labels, routing cards, inspections records, test software, physical location, or other suitable means.

The status identification indicates the conformance or nonconformance with regard to inspections and tests performed.

The inspection of test status of planning and design documents shall be identified by suitable means that indicate the conformance on nonconformance of product with regard to checking and review performed.

While some operations may be easily tagged in the field, in the testing lab or shop as to their inspection status, most will be recorded in the construction management BIM 360 program through status reports.

11.0 ELEMENT 11 ***NONCONFORMANCES***

11.1 OVERVIEW

11.2 NON-CONFORMANCE OBSERVATIONS AND REPORTING

11.3 NON-CONFORMANCE REPORT (NCR)

11.4 FIELD CONDITION REPORT (FCR)

11.5 NON-CONFORMANCE AND FIELD CONDITION REPORTS LOG

11.6 CONTROL THE CONTINUATION OF WORK

11.0 NONCONFORMANCE

11.1 OVERVIEW

W/OJV and Trade Subcontractors are responsible to identify and document nonconformance issues with W/OJV expected to use BIM 360 to document QA/QC issues, FCR's and Nonconforming construction. Once a nonconformance is identified by an inspection, there is a systematic method to control the item, correct it, and ensure that project quality is not adversely impacted by the event.

11.2 NONCONFORMANCE QA ISSUES, OBSERVATIONS, REPORTING AND FIELD CONDITION REPORTS (FCR)

A Nonconformance is an item that does not meet the requirements of the project Contract Documents. Nonconforming work will be immediately segregated. Segregation may occur by physical isolation and cordoning off of work/materials, or conspicuously identified by tags/markings when physical isolation is not possible. When Nonconforming work is discovered it is determined by the QA/QC and engineer of Record to be a Nonconformance. The Webcor/Obayashi JV CQC Manager or Trade Subcontractor QC Manager will complete a Non-Conformance Report (NCR) and enter the non-conformance issue into BIM 360 for status reporting and resolution/closure tracking.

Procedures will be established and maintained to control nonconforming work, in order to ensure that such work is not inadvertently used or installed. Nonconforming work will be identified, documented, and evaluated to determine appropriate disposition. Where practicable, nonconforming items will be segregated. Those activities affected by the nonconforming work will be notified. The responsibility for review and authority for the disposition of nonconforming work will be defined in documented procedures. Disposition of nonconforming work can include reworking it to meet requirements, accepting it with or without repair, using it for alternative applications, or scrapping it. A determination to accept nonconforming work, as is or with repair, shall have the concurrence of the engineer of record. It may be advantageous to the owner to negotiate some form of compensation for accepting nonconforming work (e.g., additional spare parts).

The TJPA Representative will notify the Contractor of any detected noncompliance. Take immediate corrective action after receipt of such notice. If the Contractor fails or refuses to comply promptly, the TJPA Representative may issue an order stopping all or part of the work until satisfactory corrective action

has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

Contractor shall be responsible for any Work that is non-conforming. Any required removal, repair, or replacement caused by non-conforming work shall be done by Contractor at no cost to the TJPA. Such non-conforming work will be considered as defective and payments will be withheld in accordance with Section 00 07 00, General Conditions, paragraphs 9.05 and 9.08.

Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the TJPA representative. Contractor shall bear all costs for such retesting at no additional cost to the TJPA.

Procedures in BIM 360 will be used for tracking construction deficiencies from identification through acceptable corrective action and there the closure of the issue. Established verification procedures that identified deficiencies have been corrected.

Follow-up Phase: CQC System Manager and Trade Subcontractor QC Managers shall perform daily checks to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. Record the checks in the CQC documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work that may be affected by the deficient work. Do not build upon or conceal non-conforming work.

11.3 NON-CONFORMANCE REPORT (NCR)

When completing the Nonconformance Report, the W/OJV CQC Manager or Trade Subcontractor QC Manager shall describe the work in detail, its location, a description of the deficiency and the proposed resolution and actions taken to prevent the recurrence of the non-conformance on BIM 360. Supporting documentation shall be attached to clearly describe the issue. The report will be uploaded into BIM 360. Nonconformance Report contents are summarized as follows:

Section 1: Nonconformance identification info: Contractor, location date, etc.
Section 2: Description of Non-conformance
Section 3: Cause

Section 4: Recommended Field Engineer Disposition (Trade Subcontractor CQC Manager)
Section 5: Project Engineering Disposition (TJPA)
Section 6: Disposition Results
Section 7: Corrective action and steps taken to prevent recurrence

Process steps when responding to the receipt of an NCR's

Step 1: QC Manager/QC Specialist notifies subcontractor, in writing (email), of NCR:

Step 1a: sub to provide in response:

- Is the NCR accurate?
- No, then what is the actual field condition (w/ supporting documentation)?
- Yes, then
  - What appears to be the root cause?
  - What remedial steps can the sub perform without the engineer's approval?

Step 1b: Project Manager/QC Manager to:

- Determine if a formal RFI or CAP (corrective action plan) needs to be submitted for prior approval?
- Trade subcontractor generates the RFI to seeking direction for remedial action.

Step 2: Webcor superintendent / QC Field Specialist – review condition in comparison w/NCR

A. Determine if the NCR is accurate,
B. Determine if there are any field indications for cause of the NCR,
C. Review sub's field QC procedures and documentation of DFOW task checklist associated with the subject NCR.

Step 3: Webcor pm, qc Manager, & superintendent meet w/ sub's pm, qc Manager, & foreman to review DFOW preparatory meeting and initial install notes to determine:

A. What step was missed to allow for the NCR?
B. What lesson's learned need to be applied to avoid future NCR?
C. Determine if changes need to be made to the frequency and type of qc reviews are done for the subject scope.

Step 4: submit the cap for the NCR based on information gathered from steps 1 - 3

Step 5: to avoid future NCR of the same type:

A. Schedule an initial phase review of DFOW CHECKLIST. Each DFOW process shall identify WHAT REVIEW is done by who and when. The frequency and type of reviews for the initial installation should be more intense than the follow up phases. An NCR shall reset the clock and increase the review documentation and confirm the corrective actions have been taken.
B. Implement additional actions as determined by the cap review process.

Step 6: trade subcontractor completes the required tasks and generates an inspection request.

Step 7: populate all the pertinent blanks on the NCR form and obtain signatures for compliance...

11.4 FIELD CONDITION REPORTS (FCR)

Field Condition Report (FCR) are conditions that deviate from the approved submittals, installed incorrectly or damaged work, but may be resolved without damage to permanent installation. When completing the Field Condition Report, the Trade Subcontractor CQC Manager will describe the work in detail, its location, Specification, a description of the deficiency, and the proposed resolution and actions taken to prevent the recurrence. The Subcontractor can also provide the disposition, and proposes to close the FCR. W/O JV CQC Manager will review proposed resolution on BIM 360 and either request for TJPA to close it or request for additional information from Sub QC Manager till the issue is resolved in a timely Manner.

Process Steps for writing and closing an FCR issue and the process for completing a NCR

Step 1: A FCR is identified and written by:

a) Observation - Webcor CQC Manager, superintendent/QC Field Specialist or TJPA representative monitoring the work observes a quality issue and create a QC/QA issue in BIM 360.

b) Task checklist - Webcor superintendent/QC Field Specialist is completing a DFOW checklist and observes an issue and creates FCR issue in BIM 360
c) Inspection request (Tasks) – When an inspector rejects an inspection request, a FCR is generated in BIM 360 and linked to the Inspection Request.

Step 1a: When FCR escalates to an NCR:

a. FCR's point to a systemic issue
b. Ignored FCR's (30, 60, 90 days)
c. Latent Issue
d. Corrective Action Plan (CAP) or RFI is required

Step 2: A QC/QA and FCR issue is closed by:

a) Stating the cause of the issue and proposes a corrective action plan (CAP) and submits the CAP in BIM 360.
b) Documents the corrective action taken in BIM 360.
c) Documents the cause and actions taken to prevent recurrence in BIM 360.

Step 2a: A NCR is closed by:

a. Submit the Corrective Action Plan (CAP) for the NCR,

Step 3: To avoid future NCR of the same type:

a) Schedule an Initial Phase Review of DFOW checklist. Each DFOW process shall identify what review is done by who and when. The frequency and type of reviews for the initial installation should be more intense than the follow up phases. An NCR shall reset the clock and increase the scrutiny to review documentation and confirm the corrective actions have been taken.
b) Implement additional action as determined by the CAP review process.

Step 4: Trade Subcontractor completes the required tasks and generates an Inspection Request.

Step 5: QC Manager populate all the pertinent blanks on the NCR Form and obtain signatures for compliance.

11.5 Nonconformance and Field Condition Report Log

The project-wide Non-Conformance Tracking Log in Autodesk BIM 360 is maintained by the TJPA Construction Management Oversight. Webcor/Obayashi JV and the Trade Subcontractors will maintain Non-Conformance logs appropriate for their scope of work.

11.6 Control the Continuation of Work

After the item of work is identified and segregated from all other active work, the W/O JV CQC Manager or Trade Subcontractor QC Manager will determine if work can continue in the affected area. When continuing work can adversely affect quality or hide the defect, work must stop in the affected area until the disposition of the item is resolved. The W/OJV CQC Manager identifies and clearly labels the limits of the affected stop work areas. Non-conforming work may be reworked to meet requirements, accepted as is, repaired, or rejected. If accepted as is or repaired, the Engineer of Record needs to approve the deviation from original specifications. Nonconforming work may require an approved Corrective Action Plan.

12.0 ELEMENT 12 CORRECTIVE ACTION

12.1 INTRODUCTION

12.1 CORRECTIVE ACTION AND CORRECTIVE ACTION PLANS

12.0 CORRECTIVE ACTION PLAN

12.1 INTRODUCTION

The following CAP procedure shall cover all construction operations, both onsite and offsite, including work by Trade Subcontractors and Suppliers. Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected."

12.2 CORRECTIVE ACTION AND CORRECTIVE ACTION PLANS (CAP)

Corrective action procedures should be established, documented, and maintained. These include procedures for investigation of the cause of nonconforming work and the corrective action needed to prevent recurrence, and procedures for analysis to detect and eliminate potential causes of nonconforming work. This element also includes implementing and recording changes in procedures resulting from corrective action.

Once a NCR cause has been determined, a written Corrective Action Plan (CAP) will be submitted by W/OJV in order to resolve and close the NCR. The CAP will be written by the Trade Subcontractor QC Manager and submitted to W/OJV's CQC Manager who will review and post to Constructware after sign-off. W/OJV QC Manager or Trade Subcontractor QC Manager will attach the submitted CAP to the NCR in BIM 360 Systems for tracking. Once CAP is approved, the CAP will be implemented by the Trade Subcontractor.

Corrective action procedures shall be established for:

- Investigating the cause of the nonconforming work and taking the corrective actions needed to prevent recurrence
- Analyzing the CAP processes to detect and eliminate potential causes of nonconforming products.
- Initiating preventative actions to deal with problems to a level corresponding to the risks encountered
- Ensuring that corrective actions are taken and that they are effective

- Implementing and recording changes in procedures resulting from corrective action

13.0 ELEMENT13 ***QUALITY RECORDS***

13.1 INTRODUCTION

13.2 DOCUMENTATION

13.3 REPORTING

DAILY REPORTS

MONTHLY REPORTS

PERIODIC FORMS, REPORTS AND LISTS

13.4 DFOW QC REPORTING FOLDER FILES STRUCTURE FOR CONSTRUCTWARE

W/OJV DAILY CQC REPORT FORM

NONCONFORMANCE REPORT FORM

13.0 QUALITY RECORDS

13.1 Introduction

Procedures are established and will be maintained for quality records. These procedures will identify which records shall be kept, responsibility for production and collection, and responsibility for indexing, filing, storage, maintenance, and disposition of quality records..

Quality records shall be maintained to show achievement of quality objectives and appropriate functioning of the Quality Management System. Supplier, contractor, and subcontractor quality records shall be included when pertinent, as defined by requirements agreed upon during DFOW Preparatory Meeting, based Specifications and Codes. Quality records shall be legible and specify the work involved. They shall be kept in an environment to minimize deterioration and damage. Retention times and final disposition shall be established and recorded.

The following types of Quality records requiring control:

- Inspection reports – (Code required inspection reports are uploaded by TJPA's QA team to BIM 360 and Constructware.) Trade subcontractors Reports are attached to Daily QC reports.
- Test Data – Code test uploaded by TJAP to BIM 360. Non-code tests are required per specs are included as part of Daily QC reports.
- Qualification records (BIM 360)
- Calibration Records (BIM360)
- Nonconformance (BIM 360)
- Corrective Actions (BIM 360)
- Daily QC reports with back up data and Documentation
- Material identification / batch tickets

13.2 Documentation

Each Subcontractor is required to produce a QC Daily Report within 3-4 days must include all sub tier documentation (Delivery tags, material traceability and heat number tags). W/O JV shall generate CQC Daily Reports that indicates inter-action with Subcontractor's process in establishing Quality installation, inspection,

and documentation. DFOW checklists are used to identify items that require special attention and document any daily occurrences in QC Daily Reports

Maintain current and complete QC reports providing evidence that required quality control activities and tests have been performed. Include in these records the work of Trade Subcontractors and Suppliers on an acceptable form.

Address deficient features and include a statement that equipment and materials incorporated in the Work and workmanship comply with the Contract. Furnish these reports to the TJPA Representative daily within 5 working days after the date covered by the report. Reports must be signed and dated by the CQC System Manager. Include copies of reports prepared by all subordinate quality control personnel within the CQC System Manager's report
.
The W/OJV CQC will review for completeness, clarity and accuracy of W/O CQC staff or Trade Subcontractor reports.

Weekly meeting with key Trade subcontractors QC Manager will go over key QC issues to ensure timely QC reports are submitted on regular bases.

13.3 REPORTING

Daily Reports

- Webcor/Obayashi JV Daily CQC reports (see attached)
- Trade Subcontractors Daily CQC reports

Monthly Reports

- Webcor/Obayashi JV Construction Monthly Report
- Webcor/Obayashi JV CQC Managers Monthly Status Report (included in the Construction Monthly Report

Periodic forms, reports and lists

- Definable Features of Work (DFOW) list per Trade Subcontractor (in W/OJV F: drive, Constructware and hard copies in section: Tab/Element 7).
- Non-Conformance Report (see attached)

13.4 DFOW QC Reporting Folder Files Structure for Constructware

The CQC File Structure is outlined below and will be utilized on this project to store, organize and manage W/OJV Daily CQC Reports and DFOWs. In Constructware

DFOW folder and file structure:

Each trade package has a folder and each DFOW has a subfolder with subsequent subfolders. The folders and files are managed by CM/GC Quality Control Manager and CM/GC Document Control. Files are located in File Management/File Director by Project. This arrangement puts all the records for each DFOW in one folder. It becomes the quality record for that DFOW.

- 10 Quality
  - 13 Definable Feature of Work (DFOW)
    - BSE- TG03- BBI
    - DFOW log
    - DFOW (By Number and Title)
      - Preparatory Phase
        Preparatory Phase documents are filed in this folder.
      - Initial Phase
        Initial Phase documents are filed in this folder.
      - Follow-up Phase
        Follow-up documentation is appended to Daily QC Reports and filed in this folder by number and date.
      - DFOW Record Documents
        As the work is completed but no later than after completion of the DFOW all quality records would be assembled and filed in this folder. In the event of an audit or record search this folder would contain all the records. Subfolders may be added as needed.
        - Material Records
        - Installation Records

CQC Daily Reports folder and file structure:

Daily CQC Reports are prepared and filed in folders by date. Each folder contains the CM/GC QC Manager's Daily Report and all the Trade Contractors' QC Managers' Daily Reports. The folders and files are managed by CM/GC Quality Control Manager and CM/GC Document Control. Files are located in File Management/File Director by Project. This arrangement puts all the Daily QC reports for each day in one folder. It becomes the quality record for that day.

- o 10 Quality
- 12 CQC Reports
- Year
  - Month
    - o Day (By Contractor- year/month/day (i.e. BBI-13/08/29 OR 20130829)
    - o CM/GC QC Daily Report
      This report is prepared by the CM/GC QC Manager
    - o TCQM Daily Report (Identified by Trade Package)
      This report is prepared by each Trade Contractor QC Manager and submitted to the CM/GC Quality Control Manager for review and filing.

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

PHASE	TRANSBAY TRANSIT CENTER BUILDING	PROJECT NUMBER: 3100

PREPARATORY

WAS A PREPARATORY MEETING HELD TODAY? YES ☐ NO ☐

IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.

Schedule Activity No.	Definable Feature of Work	

INITIAL

WAS AN INITIAL PHASE MEETING HELD TODAY? YES ☐ NO ☐

IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.

Schedule Activity No.		

FOLLOW-UP

WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES ☐ NO ☐

Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present,

REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS, ASSIGN REWORK ITEM TRACKING NUMBER)

Issue No.	Description

REWORK ITEMS CORRECTED IN PROGRESS TODAY (FROM REWORK ITEMS LIST, IF COMPLETE RECORD CORRECTION ON TRACKING LOG)

Issue No.	Description

REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO"), Manuf. Rep On-Site, etc.

Schedule Activity No.	Description

On behalf of Webcor/Obayashi, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

WEBCOR QC REPRESENTATIVE DATE

WEBCOR/OBAYASHI QUALITY CONTROL MANAGERS REMARKS AND/OR EXCEPTIONS TO THE REPORT

Schedule Activity No.	Description

WEBCOR/OBAYASHI JV CQC MANAGER DATE

CONTRACTOR QUALITY CONTROL REPORT

(CONTINUATION SHEET)
(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

PHASE	TRANSBAY TRANSIT CENTER BUILDING	PROJECT NUMBER: 3100

FOLLOW-UP

WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES ☐ NO ☐

Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present

REMARKS (Also Explain Any Checklist Item From Above That Was Answered "NO"), Manuf. Rep. On-Site, etc.

Schedule Activity No.	Description

Non-Conformance Report

W/O # _____ Assigned by CMO QA Manager **NCR #**_____

Contract # _____ **Contractor/Sub(s)**_____

Code/Spec/Dwg _____ **Location**_____

Reference #s _____

Part/Lot_____**Quantity**____**Supplier**_____**P.O.**_____

Initiated by/Co_____**Date Issued** _____

Description of Non-Conformance **Code**_____
See QMS QA-08-3, over

Cause **Code**_____
See QMS QA-08-3, over

Recommended Disposition
Contractor Field Engineering

☐ **Reject** *Remove, replace, meet spec*
☐ **Rework** *Fix to meet specifications*
—Requires FE Disposition/CQC Acceptance—

☐ **Accept-As-Is** *Not to spec*
☐ **Repair*** *Fix, but not to spec*
—Requires EOR Approval/PM OK—

Resolve as Follows

☐ Proposed resolution, repair or rework plan attached (*required)

Field Engineer *Print Name, Org; Initial* _____ Date _____

Engineer of Record Disposition
Resolve as Follows

☐ **Accept-As-Is** *Not to spec*
☐ **Repair** *Fix, but not to spec*

Engineer of Record *Print Name, Org; Initial*_____ **Date** _____
PM Concurrance *Print Name, Org; Initial*_____ **Date** _____

Quality Review
TJPA QA _____
CQC _____

Disposition Results

Contractor QC Acceptance *Print Name, Org; Initial*_____ **Date** _____
PM Verification *Print Name, Org; Initial*_____ **Date** _____

Corrective and Preventive Action (CAPA)
If required

CAPA Verification *Print Name, Org; Initial*_____ **Date** _____

Non-Conformance Codes

ASSEMBLY

001 Interference/Improper Fit
002 Dis-bonding/Adhesive Defect
003 Incorrect Part Used
004 Assembly Error
005 Soldering Failure
006
007
008
009
010 Other Assembly Related Defect

CERTIFICATION / DOCUMENTATION

011 Information Missing
012 Information Incorrect
013 Information Illegible
014 Material Incorrect
015 Inspection/Test Incorrect
016 Data Out-Of-Spec.
017
018
019
020 Other Cert./Documentation Error

DIMENSIONAL

021 Thickness—Over/Under Size
022 Diameter – Over/Under Size
023 Length/Width—Over/Under Size
024 Depth Incorrect
025 Slope Incorrect
026 Angle Incorrect
027 Feature/Item Missing
028 Position/Location Incorrect
029 Radius Over/Under Size or Missing
030 Other Dimensional Defect

INSTALLATION

031 Missing Hardware
032 Missing Equipment
033 Non-Standard Installation
034 Incomplete Installation
035 Non-Conforming Materials Used
036 Equipment Damaged
037 Incorrect Location
038 Incorrect Orientation
039
040 Other Installation Defect

INSTALLATION / TEST FAILURE

041 Inspection/Test Equipment Failure
042 Equipment Not Calibrated
043 Procedural
044 Under-Test Condition
045 Electrical Test Failure
046 Leak Test Failure
047 Environmental Test Failure
048 Functional Test Failure
049 Mechanical Test Failure
050 Other Inspection/Test Failure

MATERIAL / SOILS

051 Incorrect Material Used
052 Material Contaminated
053 Gradation Test Failure
054 Moisture Test Failure
055 Density (Compaction) Test
056 Sand Equivalent Test Failure
057 Organic Content of Soils
058 Durability Index
059 Resistance (R-value)
060 Other Material Defect

MATERIALS / CONCRETE & STEEL

061 Incorrect Materials Used
062 Concrete Slump Test Failure
063 Concrete Air Content
064 Concrete Compressive Strength Test Failure
065 Drying Shrinkage of Concrete
066 Concrete Honeycombing
067 Concrete Rock-Pocket/Voids
068 Mis-fabricated Reinforcing Steel Assemblies
069 Missing or Incorrect Reinforcing Steel
070 Other Material Defects

NON-DESTRUCTIVE EXAMINATION (NDE)

071 Cracked Welds
072 Foreign Material
073 Component Gap/Fit-up Defect
074 Undercut
075 Porosity/Slag
076 Lack of Penetration/Fusion
077 Discontinuities
078 Voids
079 Delamination
080 Other NDE Indications

SURFACE DEFECTS

081 Discoloration
082 Blisters
083 Sparing
084 Burrs/Chips/Nicks
085 Damaged/Bent/Torn/Twisted
086 Contaminated
087 Foreign Material
088 Plating/Coating Defects
089 Cracks
090 Surface Irregular/Finish

VISUAL & OTHER DEFICIENCIES

091
092
093
094
095
096
097
098
099
100 Other Visual Anomaly

14.0 ELEMENT14. ***QUALITY AUDITS***

14.0 QUALITY AUDITS

14.1 QUALITY AUDITS

The Trade Subcontractor QC Manager reports to the Webcor /Obayashi JV CQC Manager and oversees the trade specific implementation of the quality control program and whose primary responsibility will be to implement the Trade Subcontractor's quality control plan. The Trade Subcontractor QC manager will certify that the Trade Subcontractor's work is in compliance with the Contract Documents and complies with the Webcor/Obayashi Joint Venture Quality Control Plan and all quality control requirements contained in the Contract Documents, including specification section 01 14 00 Quality Control. The Trade Subcontractor QC Manager shall:

- Support and facilitate QMS Audit process by TJPA, FTA, and Agency Audits.

15.0 ELEMENT 15 ***TRAINING***

15.1 TRAINING

15.0 TRAINING

15.1 TRAINING

Webcor/Obayashi JV will ensure that only knowledgeable capable employees carry out the planning and execution of the work.

- ***The W/OJV CQC Manager will provide and document training.*** Under the Direction of the W/OJV CQC manager the Trade Subcontractor QC Managers will provide training on the elements of the W/O JV and Trade Subcontractors site specific Contractor's Quality Control Plans to all trade subcontractor staff having CQC responsibilities.
- When specified in the Contract Documents, Trade Subcontractor CQC Managers will submit proof of tradespersons qualifications including licensing requirements, certifications or other required training qualifications for the specified task to Webcor /Obayashi JV and the TJPA.
- When specified in the Contract Documents, project or task specific training will be documented by the Trade Subcontractor. The Trade Subcontractor will provide Webcor/Obayashi JV with a copy of the training syllabus and list of attendees.
- Webcor/Obayashi JV Quality Control personnel will complete the U.S. Army Corps of Engineers/U.S. Navy Facilities Engineering Command, Construction Quality Management for Contractors
- The Trade Subcontractor QC Managers will maintain records of quality training for their personnel. The Webcor/Obayashi JV CQC Manager will maintain records of quality training for Webcor/Obayashi JV personnel.
- W/OJV continues to revise Superintendents and QC field staff procedures to improve on records and reports for field issues such as Material, installation, FCR's, and NCR's.
- As part of each DFOW's meeting process a DFOW checklist will be established and will determine the requirements for each DFOW checklists.
- W/OJV shall conduct training for Superintendent and QC staff to clarify DFOW requirements as well as what issues should be tracked and raised to the status of Field Condition Reports.
- W/OJV will conduct work sessions with TJPA QC representative and W/O Superintendents to clarify, when and who shall issue FCR's and/or NCR's.

- Training of personal on the proper procedures to complete a DQC report.

Exhibit K

Construction Stormwater Pollution Control/Compliance Plan

Transbay Transit Center Project
San Francisco, California

WEBCOR BUILDERS OBAYASHI JOINT VENTURE

Reviewed by Webcor/Obayashi

951 Mariners Island Blvd
San Mateo, CA 94404

Review is for general coordination and conformance with design intent only and for submittal in accordance with the contract documents. Review by Webcor Builders does not relieve the subcontractor and/or supplier of responsibility for full coordination, accurate dimensions, correct quantities and full compliance with the contract documents. In the event subcontractor and/or supplier intends to propose any substitution or deviation to the contract documents, each substitution or deviation must be submitted and approved prior to submitting it in a shop drawing or other submittal. Review by Webcor does not imply acceptance of any substitution or deviation.

Submittal Pkg. Number: **WO-SWP0001.4**

Submittal Number: **WO0000-011561W01**

Webcor Job No.: 30100 Transbay Transit Center

Reviewed By: Joanne Filipas

Date: 02/25/2011

Subcontractor: Webcor/Obayashi

05/11 V1.3

Prepared for:
Webcor /Obayashi

2011 FEB 24 PM 1 49

WASTEWATER ENTERPRISE
COLLECTION SYSTEM DIVISION

APPROVED AS "NOT"

Prepared by:

WRECO

February 2011

Transbay Transit Center
San Francisco, California

Construction Stormwater Pollution Control/Compliance Plan

Submitted to:
Webcor /Obayashi

This report has been prepared by or under the supervision of the following Qualified Storm Water Pollution Prevention Developer and Construction General Permit Trainer of Record.

Debra Carey

Debra Carey, QSD, ToR, CEG

Feb 22, 2011

Date

February 2011

Table of Contents

Figures

Tables

Appendices

1 REGULATORY SETTING

The Transbay Transit Center Project (Project) meets federal Clean Water Act (CWA) and State Porter – Cologne Water Quality Control requirements via connection to the combined wastewater and stormwater sewer system operated by the San Francisco Public Utilities Commission (SFPUC) under a State Water Resources Control Board-issued National Pollutant Discharge Elimination System (NPDES) permit (Order No. R2-2002-0073, NPDES Permit No CA0037664). The Project is therefore not subject to coverage under the California Construction General Stormwater Permit (Order 2009-0009-DWG), that became effective on July 1, 2010; however, the construction site must implement Best Management Practices (BMPs) to prevent pollutant discharge into the combined sewer to comply with the San Francisco municipal ordinances and codes described below. This Construction Stormwater Pollution Control/Compliance Plan provides a delegation strategy along with best management practice (BMP) categories for compliance with stormwater regulations covering construction activities at the Project.

San Francisco Ordinance

San Francisco has a Stormwater Discharge Controls Ordinance requiring Pollution Prevention Procedures during any construction conducted in the City of San Francisco. In general the ordinance discusses long term BMPs such as rain gardens and green roofs particularly applicable to redevelopment areas and sections of the City serviced by small municipal separate storm sewer systems (MS4); however aspects of the ordinance apply to construction activities. For example, although coverage under the NPDES General Construction Permit (Water Board Order No. 99-08-DWQ) is not required for projects in those areas of the city that drain to the combined sewer system; all construction sites must implement BMPs to prevent illicit discharge into the combined sewer. Generally, City requirements include the development of a Storm Water Pollution Prevention Plan (SWPPP), SWPPP plan review by SFPUC, stormwater treatment measures, runoff monitoring, and frequent site inspections. The regulations also require the use of construction period (and operational period) BMPs on construction sites to keep pollutants (sediment and construction site debris), out of water conveyance systems, the treatment plants, and discharge points.

San Francisco Public Works Code

The federal CWA requires that publicly-owned treatment works (POTW) regulate the discharge of industrial wastes into a sewer system subject to NPDES permit requirements, and since construction activity is regulated under the industrial category, San Francisco's department of public works (DPW) has adopted requirements for construction discharges to the combined sewer system. Under DPW regulations, discharges of construction storm water as well as any wastewater (such as dewatering from construction sites) is subject to the requirements of Article 4.1 of the San Francisco Public Works Code, which regulates the quantity and quality of discharges to the combined sewer system. Projects that conduct any dewatering activity are required to apply for a Wastewater Batch Discharge Permit from the SF PUC WWE_CSD. Information on the Batch Discharge Permit and pre-treatment can be found online at: **http://sfwater.org/msc_main.cfm/MC_ID/14/MSC_ID/445.**

Order No. 158170 of the San Francisco DPW provides additional pre-treatment industrial waste discharge limits to augment those listed in Article 4.1. The San Francisco Municipal Code requires contractors to have a Sediment and Erosion Control Plan for projects that discharge to the Combined Sewer System.

RESPONSIBLE PARTIES

The legally Responsible Party for the Project is the Transbay Joint Powers Authority (TJPA). The TJPA consists of a collaboration of Bay Area government and transportation agencies, and is managed by TJPA staff and overseen by a Board of Directors. For site-specific concerns that can be addressed by TJPA, please call **415.409.TJPA (8572)**.

Webcor /Obayashi is a joint venture contracting group hired by TJPA as general contractor for the Transbay Terminal Center Phase of the Project. Webcor /Obayashi will be subcontracting construction to Trade Subcontractors who will be responsible for preparing SWPPPs specific to their construction activity, schedule, discharge points, types of pollutants and construction boundaries. The Trade Subcontractors will be responsible for preparing and submitting for approval a SWPPP including furnishing, installing, maintaining and removing BMPs such as silt fence, filter boxes, construction entrances, sediment traps, dust control, dewatering and other erosion and sediment control measures during construction to prevent contamination of storm water from construction activities and to maintain compliance with the SF storm water ordinance and codes. For site-specific NPDES concerns that can be addressed by Webcor/Obayashi, please call **415.978.5726**.

2 PROJECT INFORMATION

2.2 Project Description

The Project is located generally between Second Street in the west, Beale Street in the east, Natoma Street in the south and Minna Street in the north (Figure 1). The Project is part of a larger $4 billion transportation and housing expansion/redevelopment effort that will replace an old Transbay Terminal at First and Mission streets with a modern regional transit hub connecting eight Bay Area counties and the State of California through 11 transit systems: AC Transit, BART, Caltrain, Golden Gate Transit, Greyhound, Muni, SamTrans, WestCAT Lynx, Amtrak, Paratransit and future High Speed Rail from San Francisco to Los Angeles/Anaheim.

The entire Project consists of three broad activities as noted below. Webcor /Obayashi are the general contractors and have prepared this Construction Stormwater Pollution Control/Compliance Plan to provide for compliance with stormwater regulations covering construction activities.

- **Utility Relocation**
- **Train Box and Transit Center Building Construction**
- **Bus Ramp Construction**

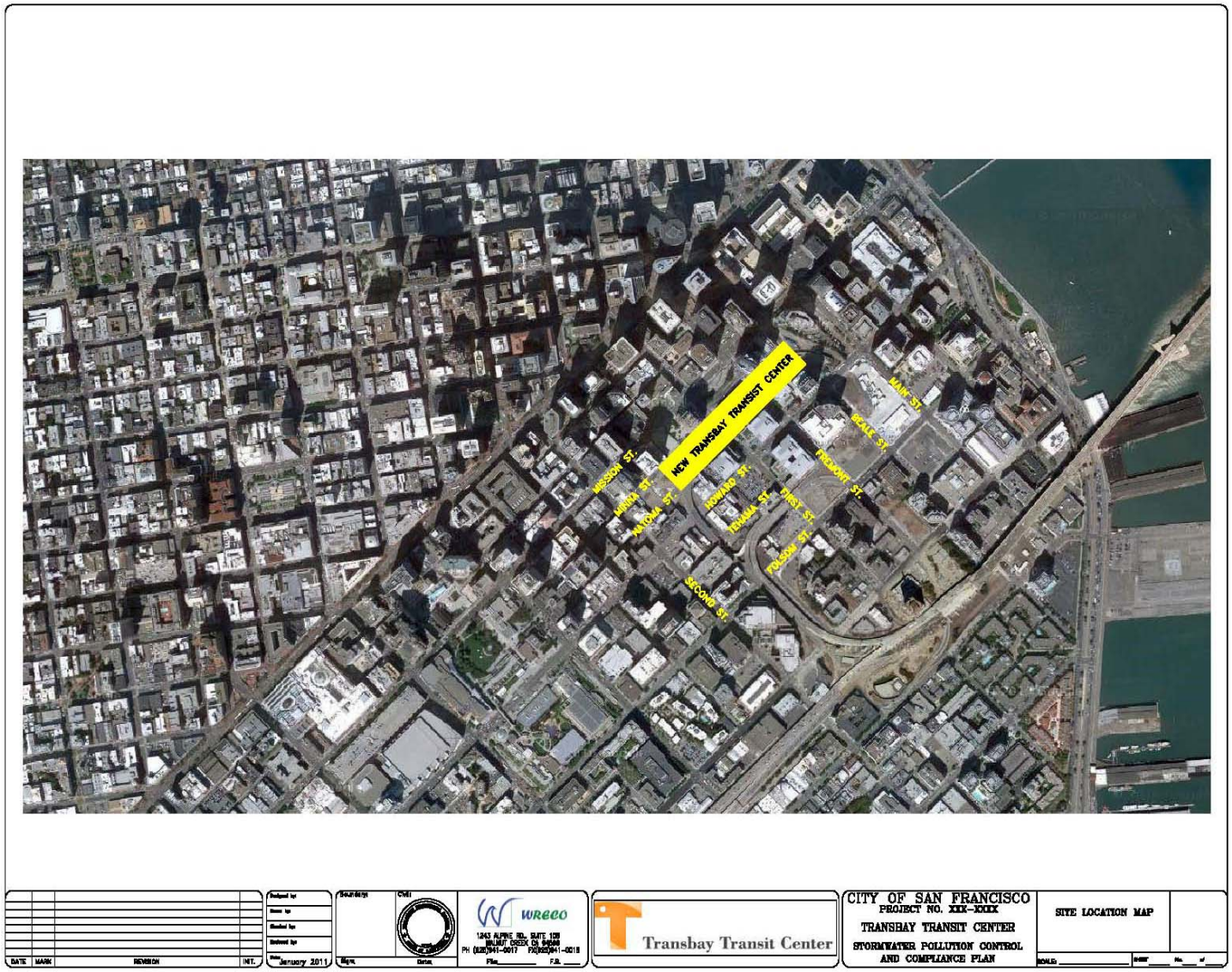


Figure 1. Project Location Map

2.3 Project Size and Total Disturbed Area

The estimated total disturbed soil area (DSA) for the Project is approximately 12.3 acres and includes the areas where the soil might be potentially disturbed by construction activities, as follows:

Table 1. Total Land Disturbance

Area Name	Approximate Area Disturbed (Acres)
Zone 1	2
Zone 2	1.8
Zone 3	1.5
Zone 4	4
Linear Utility Relocation	2.5
Additional Staging/Disturbance	3
Total	12.3

Figures 2 and 3 show general locations for the DSA construction zones and linear utility relocation trade packages. Several staging areas are anticipated during the life of the Project as shown in Figure 4.

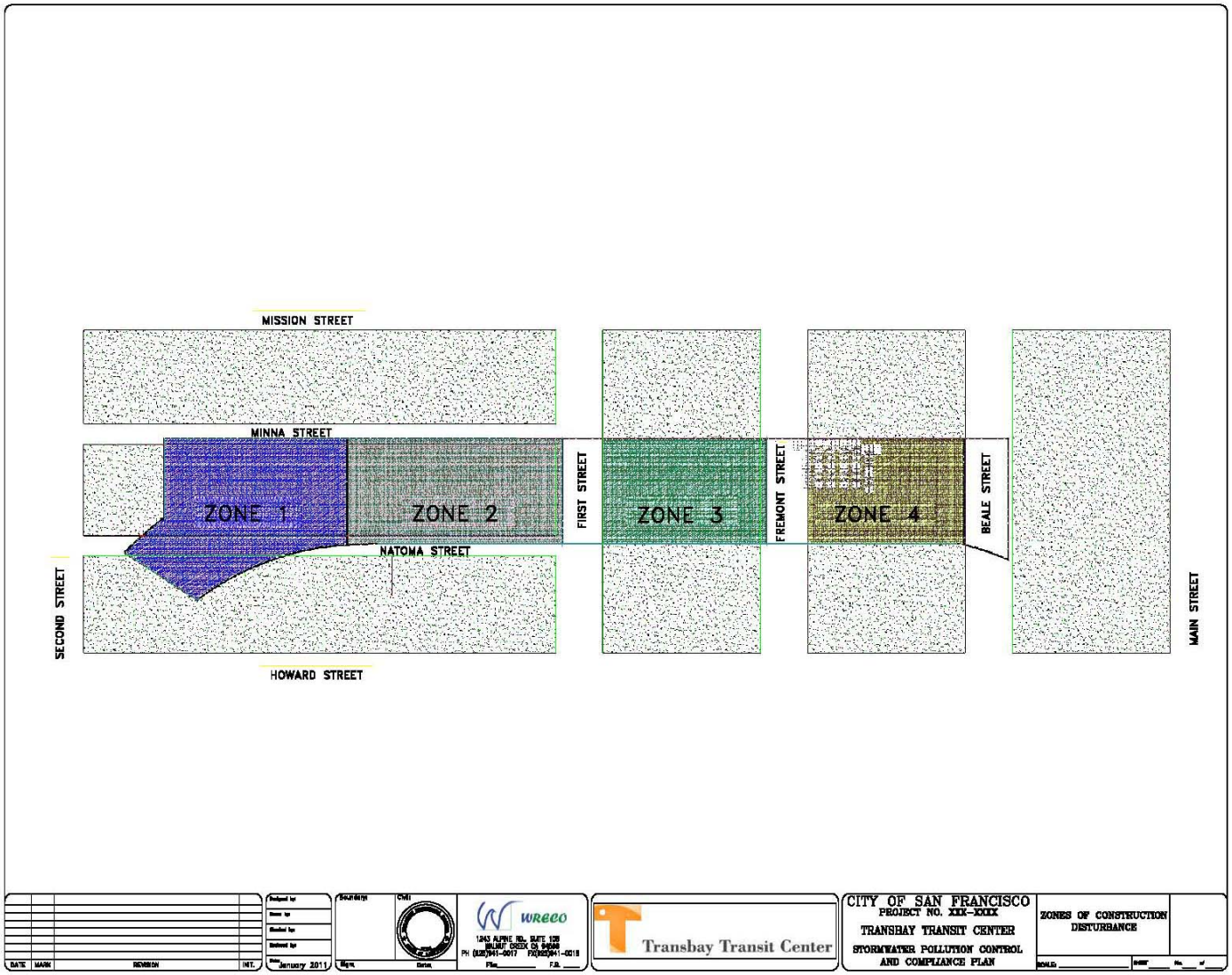
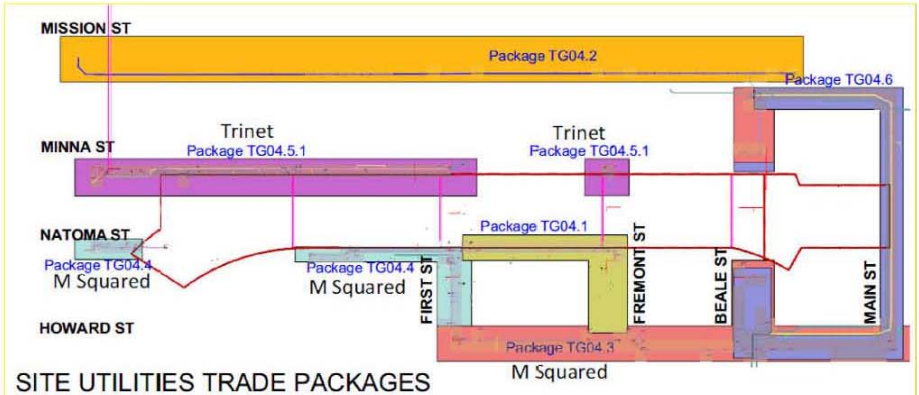


Figure 2. Construction Zone Locations



SITE UTILITIES TRADE PACKAGES

Package	Scope	Streets
4.5.1	Water/Sewer	Minna - 1st to 2nd 1st - Minna to Mission
4.5.1	Joint Trench - PG&E and AT&T	Minna
4.4	Water/Sewer	Natoma - 1st to 2nd 1st - Natoma to Howard
4.3	Water	Howard - 1st to Main St Beale St
4.2	AWSS	Mission St
4.1	Sewer/Water	Natoma - 1st to Fremont Fremont - Natoma to Howard
4.6	Sewer/Sludge	Sewer at Beale - Sludge at Howard, Main and Mission

NOT FOR CONSTRUCTION

DATE | MARK | REVISION | INIT.

Designed by:
Drawn by:
Checked by:
Reviewed by:
Date: January 2011

Boundary: Civil:
Sign: Date:

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File: FJS:

Transbay Transit Center

CITY OF SAN FRANCISCO
PROJECT NO. XXX-XXXX
TRANSBAY TRANSIT CENTER
STORMWATER POLLUTION CONTROL AND COMPLIANCE PLAN

UTILITIES DSA MAP

SCALE: SHEET No. of

Figure 3. Utilities DSA Map

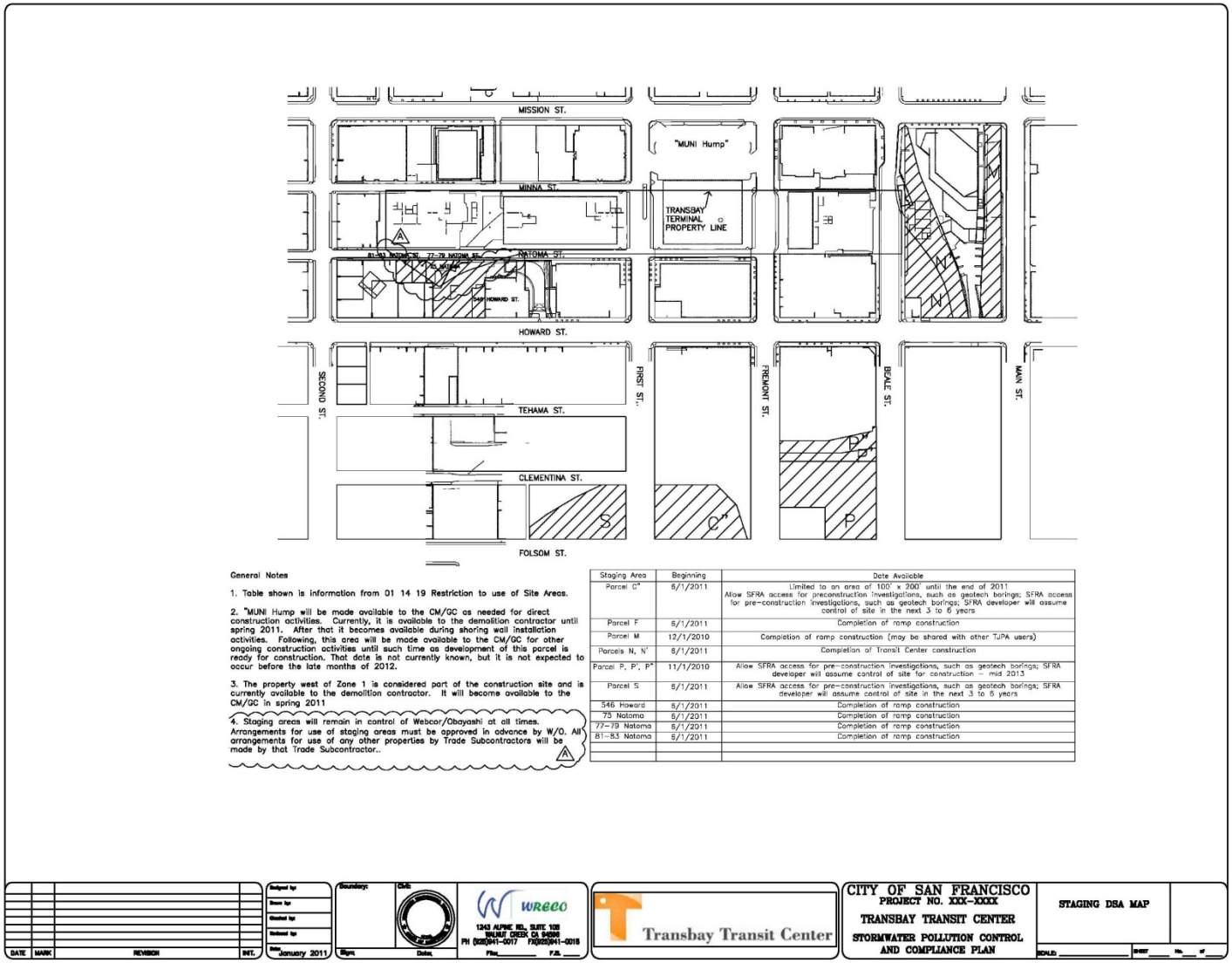


Figure 4. Staging DSA Map

2.4 Receiving Waters and Environmentally Sensitive Areas

The Project is located within the northeastern section of the City of San Francisco. The Project does not discharge directly to jurisdictional "receiving water." The San Francisco combined sanitary/storm water sewer system collects all storm and waste water discharging in the Project vicinity and pipes the water to the Southeast Water Pollution Control Plant for processing and discharging under NPDES Permit No CA0037664. The SE plant currently treats runoff to secondary treatment standards established by the USEPA, meeting or exceeding water quality objectives in San Francisco Bay.

The San Francisco Bay Area has a climate characterized by wet winters and dry summers. Average annual rainfall in the area is approximately 20 inches. The majority of this rainfall generally occurs from November through April with little rainfall during the remaining months of the year. Construction for the Project will span a period of several years including both wet and dry seasons. The project does not impact any known environmentally or culturally sensitive areas. For information regarding any environmentally sensitive habitat concerns, please refer to the Biological Resource Assessment. For information on cultural or other CEQA or NEPA requirements, please refer to the appropriate State or Federal Agency.

2.5 Construction Activities and Schedule

The Project activities include but are not limited to clearing, excavation and backfill, construction and finishing work within a busy city environment with established infrastructure. Several staging areas are anticipated during the life of the Project. Construction equipment and materials will be stored both onsite and at staging areas. As a result, fueling and maintenance, as well as welding and fabrication, may take place onsite. A discussion of the pollutants with potential to contact storm water as a result of these activities is included below. Since demolition of the existing ramps and terminal is currently underway by another contractor (Evans Bros Inc), the first phase of the Webcor-Obayashi Project includes utility relocation, followed by subexcavation in preparation for construction of the Transit Center Building/Train Box. Construction overseen by Webcor-Obayashi will create a new five-story Transit Center with one above-grade bus level, ground-floor, concourse, and two below-grade rail levels serving Caltrain and future California High Speed Rail, and includes new bus ramps to connect the Transit Center to a new off-site bus storage facility and the SF-Oakland Bay Bridge. Construction of the Project should be completed within or near the year 2017.

The following list generally outlines the expected Project construction schedule:

1. Utility relocation November 2010-September 2011.
2. Protection of perimeter: March 2011.
3. Trade Subcontractors awarded contracts: April 2011.
4. Activity specific SWPPPs submitted by Trade Subcontractors: April 2011.
5. Sediment control products ordered and stored on site by Trade Subcontractors: May 2011.
6. Stabilized construction entrance, equipment parking, covered storage and any concrete wash areas constructed by Trade Subcontractors: May 2011.
7. Excavation and Dewatering by Trade Subcontractors: May 2011-April 2014.

8. Transit Center Building Construction: May 2013-August 2017.
9. Bus Ramps: 4th quarter 2012-4th quarter 2014.
10. Construction of the concrete form box and train box by Trade Subcontractors: TBD.
11. Vertical Construction by Trade Subcontractors: 2013-2017.
12. Monitoring and Maintenance of BMPs: Entire construction timeline by Trade Subcontractors.
13. All BMPs functional: Entire construction timeline.

2.6 Potential Construction Site Pollutant Sources

Potential materials expected from the project include, but are not limited to, excavated soil, oil products (gasoline, diesel, hydraulic oil, and kerosene), solvents, concrete and curing compounds, and other construction materials. Construction on the project site will require temporary disturbance of surface soils and removal of existing on-site pavements and subsurface structures. During the construction period, excavation and grading activities will result in exposure of soil to water runoff, and the use of haul trucks that could track material away from the construction site. Much of the excavated material will be typical of coarser sandy soil particles that do not mobilize easily. However, some of the material may consist of relatively mobile fine sediments (silt and clay). Most excavation will occur in a below-grade pit which will drain internally and contain storm water; however construction activities will impact areas outside of the excavation areas that drain toward the San Francisco combined sewer drain inlets. Water in excavation pits from rainfall and groundwater seepage would contain sediment. Removal of the pit water will probably require sediment removal before it can be discharged into the storm drains (see SF PW Code paragraph above).

Soil and debris on the haul truck tires exiting the site could be deposited on local streets and Transport in storm water into the storm drain. The majority of construction debris and materials would be loaded onto trucks within the interior of the construction boundaries, rather than from public sidewalks or streets bordering the project site. The construction debris and materials would then be hauled off site. Therefore, soil stockpiles would be minimized on site.

In addition to sediment, Table 2 lists expected construction materials that could generate pollutants, describes their chemical and physical properties, and identifies potential pollutants associated with them. This list should be updated as the project proceeds and additional phases begin.

Table 2. Potential Stormwater Pollutants

Source	Chemical/Physical Description	Storm Water Pollutants*
Diesel Fuel	Clear, blue-green to yellow liquid	TPH-diesel, benzene, toluene, ethylbenzene, xylenes, naphthalene
Concrete Work	Cement, fly ash, aggregate	pH
Oil and Grease	Brown oily petroleum	TPH-motor oil, oil and grease
Used Oil (oil only)	Brown oily petroleum	TPH-motor oil, oil and grease, LUFT 5 metals (cadmium, chromium, lead, nickel, and zinc)
Excavated and Stockpiled Soil	Solid particles	Soil, sediment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	TPH-gasoline, benzene, toluene, ethylbenzene, xylenes. For "old" releases, include DIPE; ETBE; MTBE; TAME; TBA; 1,2-dibromoethane (1,2-DBA); and 1,2-dichloroethane (1,2-DCA)
Hydraulic Oil/Fluids	Brown oily petroleum hydrocarbon	TPH-hydraulic oil, benzene, toluene, ethylbenzene, xylenes, LUFT 5 metals (cadmium, chromium, lead, nickel, and zinc)
Sanitary/Septic Waste	Sewage products	Coliform, *E. coli*, viruses, solvents (i.e. volatile organic compounds such as trihalomethanes and the dichlorobenzene isomers), nitrate
Trash; Windblown and Other	Paper, pipe, electrical wires etc.	Paper, pipe, electrical wires etc.

Notes: *****TPH-gasoline = total petroleum hydrocarbons quantified as gasoline (the same pattern for TPH-diesel, TPH-motor oil, TPH-hydraulic oil)
BTEX = benzene, toluene, ethylbenzene, and xylenes
DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
MTBE = methyl tertiary butyl ether
TAME = tertiary amyl methyl ether
TBA = tertiary butyl alcohol
LUFT = leaking underground fuel tank
PCBs = polychlorinated biphenyls

Pollutants of concern in the San Francisco Bay include, but are not limited to, mercury, diazinon and Polychlorinated Biphenyls (PCBs). These chemicals are not easily broken down and they tend to adhere to particles of sediment, so can be removed from stormwater in BMPs that trap sediment. For this reason, sediment trapping BMPs are highlighted in the treatment controls listed for the project. Additional pollutant categories that can be anticipated in stormwater leaving the project include oil and grease, trash, sediment, organic compounds, pesticides, nutrients and metals.

2.7 Identification of Non-Storm Water Discharges

Non-storm water discharges include a wide variety of sources and may contribute pollutant loads if not controlled. They can include, but are not limited to:

- discharges of process water
- saw cutting slurry
- air conditioner condensate
- non-contact cooling water
- vehicle wash water
- sanitary wastes concrete washout water
- paint wash water
- irrigation water
- pipe testing water
- natural groundwater seepage

Measures to control spills, leakage, and dumping, and to prevent illicit connections during construction must be addressed through structural as well as non-structural BMPs. Certain non-storm water discharges may be necessary for the completion of construction projects. Authorized non-storm water discharges may include those from de-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, uncontaminated ground water dewatering, and other discharges not subject to a separate general NPDES permit adopted by a region. Authorized non-storm water dewatering discharges require a permit. Information can be found online at: **http://sfwater.org/msc_main.cfm/MC_ID/14/MSC_ID/445.**

Each Trade Subcontractor is responsible for procuring the necessary dewatering permits for construction activities undertaken. The SFPUC prohibits the discharge of storm water that causes or threatens to cause pollution, contamination, or nuisance.

Additionally, all SWPPPs prepared by Trade Subcontractors must include procedures and practices designed to minimize or eliminate the discharge offsite of pollutants from vehicle and equipment cleaning, fueling, maintenance operations and other non-storm water. Project monitoring by trade Subcontractors will include a visual check for non-storm water discharges and non-storm water discharge potential.

3 BEST MANAGEMENT PRACTICES (BMPS)

BMPs shall be implemented as listed in this Plan and additionally as necessary to adequately minimize erosion on site and limit sediment transport off site to an acceptable level in accordance with the SFPUC regulations and all City Codes and Ordinances.

Erosion and sediment control measures are needed throughout the year on the Project. In particular, stormwater catch basins must be protected year round. During dry season development, BMPs will be primarily designed to mitigate the movement of sediment and pollutants off site by tracking from grading equipment and from wind. Wet season BMPs are designed to prevent soil from washing off graded areas during rainy periods, tracking of soil and pollutants off site by vehicles and any other movement of pollutants from the Project.

3.2 BMP Objectives

This Construction Stormwater Pollution Control/Compliance Plan provides the following BMP objectives:

- Provide overall guidance to Trade Subcontractors in preparing SWPPPs and dewatering plans specific to their construction activities, construction timelines and drainage areas for submittal to the SFPUC.
- Delineate typical construction pollutants and their sources, including sources of sediment associated with construction, construction site erosion and other activities associated with anticipated construction activity. Trade Subcontractors are expected to expand and amend the information provided here within to tailor their SWPPPs to their activities.
- Outline best management practice (BMP) categories that need to be included in the SWPPPs prepared, submitted and maintained by the Trade Subcontractors to a level that results in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the standard required by the SFPUC.

BMPs categories listed in this Construction Stormwater Pollution Control/Compliance Plan should be reviewed by the Trade Subcontractors, added to their SWPPPs as applicable and additionally installed, maintained, monitored and reported as practicable to adequately minimize erosion on site and limit sediment transport off site to an acceptable level. Adjustments and modifications to the BMPs identified in this Plan need to be implemented by the Trade Subcontractors as necessary to maintain the construction site in accordance with the provisions of the SFPUC regulations and all City Codes and Ordinances.

The SFPUC identifies the following list of BMPs and pollution prevention measures that must be implemented at all construction sites:

- Identify all storm drains and catch basins near the construction site and ensure all workers are aware of their locations to prevent pollutants from entering them.
- Protect all storm drain and catch basin inlets.
- Develop an erosion control and sediment control plan for wind and rain.
- Develop spill response and containment procedures.
- Inspect site regularly to ensure that BMPs are intact.

- Conduct daily site cleanings as needed.
- Educate employees and subcontractors about BMPs.
- Regularly maintain all BMPs at project site.

3.2.1 Erosion Control BMPs

Erosion control practices consist of source control measures designed to prevent soil particles from becoming dislodged and transported in storm water runoff, while sediment control measures filter and otherwise recover soil particles from runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles and in many cases, are more effective, less expensive, and require less maintenance and repair. Although they typically function by protecting the surface of exposed soil, erosion control measures cannot be effectively applied until grading activities are complete or idle.

At the Project, erosion is expected to occur primarily as a result of pavement removal, soil disturbance and subsequent wind or rain. For this reason, BMPs to limit the timing of soil disturbance and provide timely stabilization for the disturbed soil surface should be the focus of erosion control efforts for the site. Erosion control BMPs such as scheduling and non-vegetative soil stabilization (soil binders) should be considered by each Trade Subcontractor (TS) and added to their SWPPPS to control soil erosion on the construction site. Modifications to the BMPs may be necessary should construction activities or the construction schedule be altered. If modifications are needed to the BMPs, the Trade Subcontractor should work with the SFPUC to amend the SWPPP and Erosion Control BMPs to satisfactorily meet City storm water regulations.

Scheduling should be implemented throughout the project as a means of ensuring that significant earth-disturbing activities are avoided if rain is forecasted. If there are exposed areas that are not being actively worked the trade Subcontractors should consider stabilizing all areas as practical. If additional information or instructions are needed for BMP installations, the CASQA website and cutsheets can be found at: **www.casqa.org.**

3.2.2 Sediment Control BMPs

Sediment control is any practice that traps soil particles after they have been detached and moved by rain, flowing water, or wind. Sediment control measures are usually passive systems that rely on filtering or settling the particles. Sediment control, or capturing the sediment once it is mobilized, is considered back up or secondary to good erosion control.
Table 3 indicates the BMPs for sediment control that should be considered and included in SWPPPs by trade Subcontractors as applicable on the construction site.

Table 3. Construction Sediment Control BMPs

BMP Name
Silt Fence
Fiber Rolls
Gravel Bag Berm
Sand Bag Barrier
Storm Drain Inlet Protection
Stockpile Management

If additional information or instructions are needed for BMP installations, the CASQA website and Cutsheets can be found at: **www.casqa.org.**

3.2.3 Tracking Control BMPs

Tracking control consists of preventing or reducing the tracking of sediment off site by vehicles. Daily inspections will be conducted at the construction entrances and if track-out is observed, the area will be swept by the Trade Subcontractors. If additional information or instructions are needed for BMP installations, the CASQA website and cutsheets can be found at: **www.casqa.org.**

3.2.4 Wind Erosion Control BMPs

Wind Erosion Control is a very important BMP for the Project. All Trade Subcontractors are required to comply with the regulations specified by the local Air Quality Control District. Construction will be halted if required to do so due to high wind conditions as specified by the local Air Quality Control District, and/or common sense. Alternative forms of wind erosion control such as tackifiers and covers will be utilized as necessary to avoid and minimize windblown dust from leaving the project site. If additional information or instructions are needed for BMP installations, the CASQA website and cutsheets can be found at: **www.casqa.org.**

3.2.5 Non-Storm Water Control BMPs

Non-storm water management BMPs are source control BMPs that prevent pollution by limiting or reducing potential non-storm water pollutants at their source or eliminating offsite discharge. These practices involve day-to-day operations of the construction site and are also referred to as “good housekeeping practices” which involve keeping a clean, orderly construction site.

Non-storm water management BMPs includes procedures and practices designed to minimize or eliminate the discharge of pollutants from vehicle and equipment cleaning, saw cutting, pipe testing and other activities that generate liquid slurry or water based effluent. All storm/sanitary drain inlets should be located and protected during construction such that non-storm water carrying pollutants does not enter the inlets. Paving and concrete work should be undertaken during dry weather and drain inlets covered

during these activities. During wet weather construction, the drain inlets should be protected with a BMP that filters water such as sediment traps, silt bags and straw wattle.

3.2.6 Waste Management/Materials Control BMPs

Waste management and materials pollution control BMPs, like non-storm water management BMPs, are source control BMPs that prevent pollution by limiting or reducing potential pollutants at their source before they come in contact with storm water.

These BMPs also involve day-to-day operations of the construction site, are under the control of the Trade Subcontractors, and are additional "good housekeeping practices" which involve keeping a clean, orderly construction site. Waste management consists of implementing procedural and structural BMPs for handling, storing, and disposing of wastes generated by a construction project. The objective is to prevent the release of waste materials into storm water runoff or discharges through proper management of the following types of wastes:

- Solid
- Sanitary
- Concrete
- Hazardous
- Equipment – related wastes

Materials pollution control (also called materials handling) consists of implementing procedural and structural BMPs in the handling, storing, and the use of construction materials. The BMPs are intended to prevent the release of pollutants during storm water and non-storm water discharges. The objective is to prevent or reduce the opportunity for contamination of storm water runoff from construction materials by covering and/or providing secondary containment of storage areas, and by taking adequate precautions when handling materials. Material Safety Data Sheets, covered and secondary containment and employee training are important examples of materials pollution control. These controls must be implemented for all applicable activities, material usage, and site conditions by each Trade Subcontractor working on the Project.

The following BMP Table 4 indicates the BMPs for Trade Subcontractors to utilize to control construction site wastes and materials for the project.

Table 4. Waste Management and Material Handling Control BMPs

BMP Name
Material Delivery & Storage
Material Use
Spill Control
Solid Waste Management
Hazardous Materials/ Waste Management
Concrete Waste Management
Sanitary/Septic Waste Management
Liquid Waste Management

Fuel (gasoline/diesel), hydraulic oil, motor oil, and other liquid or hazardous waste materials used for vehicle and equipment maintenance may be used on the construction site and at the lay down areas if applicable permits are obtained and spill/response measures are adhered to. Minor amounts of lubricants and hydraulic fluid may be stored in vehicles. Spill response equipment will also be located onsite and near active construction.

Waste management BMPs includes procedures and practices designed to minimize or eliminate the discharge of pollutants from vehicle and equipment use, as well as fueling and maintenance operations to storm water drainage systems or to watercourses. Drip pans, diapers or alternative containment will be placed under equipment and vehicles (as applicable during maintenance or if leaking is suspected) while not in use, to catch and/or contain drips and leaks and prevent soil contamination. Construction crews will be educated to check parking areas visually for signs of leaking liquids; any vehicles found to be leaking onto the soil surface will be provided with temporary drip pans while at the project site. Fueling may be conducted on the job site and at the lay down area if fueling BMPs are implemented, appropriate permits are obtained and proper spill control policies and procedures are followed.

It is important that Trade Subcontractors minimize or abate the exposure of materials stored or spilled at the site. Spill Response Procedures for smaller spills are presented in BMPs. If a larger spill or discharge offsite occurs, or if the project receives a written notice or order from any regulatory agency, Trade Subcontractors will follow their Health & Safety Plan and Spill Prevention Countermeasure and Control Plan (SPCC) as well as comply with all Federal, State and local spill reporting regulations.

4 BMP INSPECTION, MAINTENANCE AND RECORD KEEPING

Inspection and maintenance of BMPs are an integral part of the Project and will be followed by the Trade Subcontractors. During visual inspections, if any BMP deficiencies or any storm water compliance issues are observed, the Trade Subcontractor's Construction Supervisor will be notified immediately and the deficiencies will corrected as soon as possible. The Trade Subcontractors are responsible for maintaining and/or submitting any required monitoring records as required by regulatory agencies in accordance with current regulatory guidelines.

Table 5. Trade Subcontractor Maintenance, Monitoring and Repair Procedures

PRACTICE	MONITORING, MAINTENANCE AND REPAIR PROCEDURES
Erosion Control	Check all soil protection including fabric, plastic, rock, hydroseed, mulch and velocity dissipation before, during and after rain events. Repair or replace as necessary to maintain proper function.
Street Cleaning	Streets must be periodically cleaned. Large quantities of soil tracked onto the street will be picked up by a loader bucket and/or hand shoveled back onto the pad. Streets must also be swept on an as-needed basis to maintain continuous sediment and litter control. Street washing shall not be done.
Sediment Control	Check integrity and functioning of berms, straw bales, check dams, and silt fences. Repair any eroded areas and remove accumulated debris.
Inlet Protection	Monitor installation and maintenance of sediment barriers and inlet protection devices. Check periodically during storms and repair or remove sediment as necessary to maintain appropriate functioning.
Temporary Basins	Remove accumulated sediment when sediment accumulates to within one foot of the outlet elevation and restore original dimensions of the basin. Obtain dewatering discharge permit from SFPUC prior to any dewatering of stored surface or groundwater.
Materials/ Equipment Storage	• Petroleum products shall be stored out of the rain and waste materials shall be stored in secured containers. Paints, solvents, enamels, sealers, bonding agents, and other chemicals shall be stored inside a covered, secure area. • Keep designated storage areas clean and well organized. Conduct weekly monitoring to check for damaged containers, leaks, etc. • Keep chemicals in original containers and keep them labeled. • Train employees and subcontractors on the use of the storage area.
Fueling Practices	• If refueling of equipment is conducted on site, make sure that

PRACTICE	MONITORING, MAINTENANCE AND REPAIR PROCEDURES
	fueling is occurring in designated areas and that secondary containment items such as drain pan or drop cloth are nearby to catch fuels/leaks. • Inspect and maintain vehicles and equipment regularly to minimize leaks and drips. • Comply with Federal, State and local requirements for fuel storage tanks.
Herbicide/ Pesticide Application	Provide the landscape contractor with knowledge about proper procedures for application of designated chemicals.
Waste Disposal	Provide proper disposal procedures for specific materials
Litter Control	Place trash bins in appropriate locations and are being used properly. Pets will not be allowed on the Project during construction.
Equipment Cleaning	If equipment cleaning is done on site, make sure contractors are using designated, bermed wash areas to prevent wash water from entering storm drain system.

5 LIST OF CONTRACTORS/SUBCONTRACTORS

The following is a partial list of Trade Subcontractors, suppliers and consultants that may be employed on the Project. Names and contact numbers for each activity on the list can be obtained from Webcor /Obayashi upon request. This list is to be updated as necessary. This plan can be utilized as part of a subcontractor notification letter to document Subcontractors notification of their obligation to uphold applicable storm water pollution control regulations.

TRADE	NAME	Signature Indicating Willingness To Provide, Maintain, and Implement SWPPP in compliance with all applicable City Ordinances and Codes
Architect		
Bricklayers		
Cabinet Makers		
Carpenters (finish)		
Carpenters (rough)		
Ceramic Tile Installers		
Civil Engineer		
Cleaning Crews		
Concrete Subcontractors Testers		
Demolition Contractors		
Door Installers		
Drywall Installers		
Electricians		
Environmental Consultants		
Fence Builders		
Fireplace Installer		
Flooring Installers		
Garage Door Installers		
Glass Workers		
Grading Contractors		
Hardware Installers		
HVAC Contractors		
Insulation Contractors		
Marble Contractors		
Masonry Contractors		

TRADE	NAME	Signature Indicating Willingness To Provide, Maintain, and Implement SWPPP in compliance with all applicable City Ordinances and Codes
Millwork Suppliers		
Landscaping Contractors		
Landscape Maintenance Crews		
Lumber and Truss Suppliers		
Mirror and Shower Door Installers		
Painting Contractors		
Paving Contractors		
Pipeline Contractors		
Plaster Contractors		
Plumbing Contractors		
Roofing Contractors		
Shelving Installers		
Striping and Signage Contractors		
Stucco Contractors		
Termite Contractors		
Underground Utility Crews	Trinet	
Waterproofing Subcontractors		
Window Installers		

6 INSTRUCTIONS TO FIELD PERSONNEL

Webcor /Obayashi will be responsible for mandating that SWPPP documents be prepared by Trade Subcontractors and also for observing the site on a regular basis in keeping with the standard of care for a General Contractor. Webcor /Obayashi will coordinate day to day oversight of the Project as a whole, track compliance with their contract obligations as well as Trade Subcontractor costs, direct Trade Subcontractors to maintain the Project site in accordance with all applicable regulations, and attend to discussions with the City regarding compliance concerns. Contracts with Trade Subcontractors and Sub tier Subcontractors shall include a requirement to comply with the provisions of this Plan and to maintain compliance with all applicable City Ordinances and Codes. The Trade Subcontractors, Sub tier Subcontractors and their Project Superintendents for this project are hereby authorized to uphold, certify, and maintain their own SWPPPs and to distribute it to all field personnel responsible for monitoring the site and maintaining compliance with storm water regulations. All subcontractors, field personnel and their assigns that work at the site must conform to the requirements described in this Plan and the SWPPP developed for Trade Subcontractor activities and any alterations thereof made at the time and in the manner herein specified, and in all respects according to its intent and meaning, and shall indemnify and hold harmless Webcor /Obayashi, its officers and agents, if failure to conform results in legal action or any other action by the Regional Water Quality Control Board or City. Duties of the Trade Subcontractors include but are not limited to:

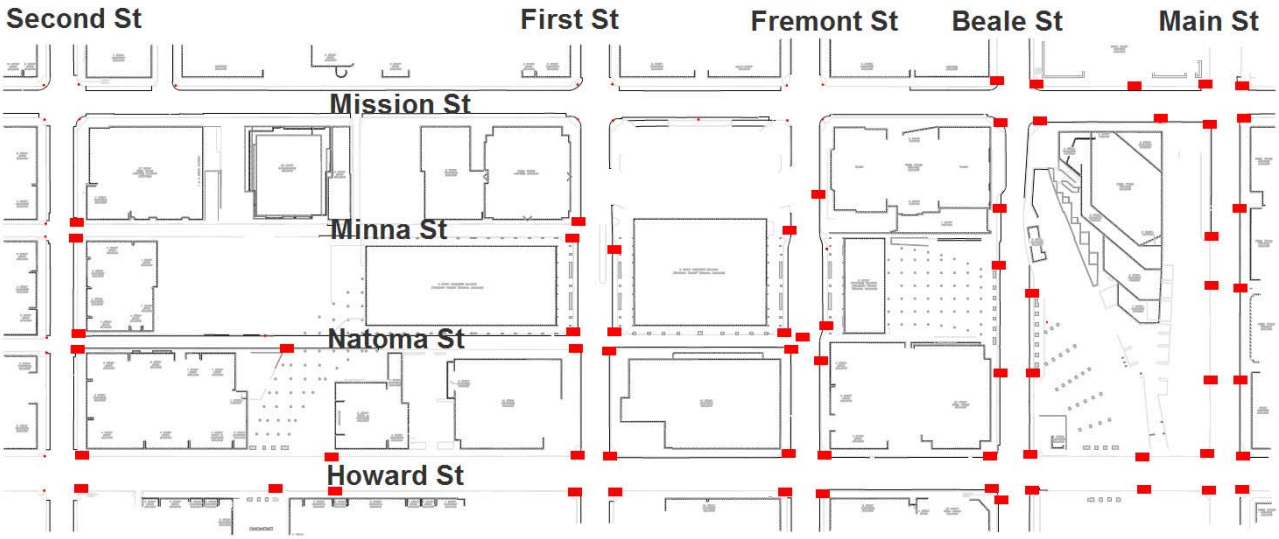
- Maintaining full compliance with their SWPPP and all City Codes and Ordinances.
- To this effect, the Trade Subcontractors shall have authority to mobilize their own crews for:
    - BMP Installation, monitoring and maintenance.
    - Obtaining dewatering and other applicable permits necessary for the satisfactory completion of their contract.
    - Providing for elimination of all unauthorized discharges.
    - Coordinating with the City such that all updates, amendments, corrections and/or repairs are made in a timely fashion.
    - Stopping any construction activity that is in violation of municipal ordinances or codes or that is inconsistent with the provisions of the Trade Subcontractors SWPPP.

7 CLOSING

The Project will comply with the storm water discharge regulatory framework in the site vicinity through implementation of this Construction Stormwater Pollution Control/Compliance Plan. This Plan indicates that each Trade Subcontractor is responsible for preparing, submitting for approval, installing and maintaining a SWPPP with BMPs for protecting inlets to the SF combined sewer system from construction activities. BMPs included in the SWPPPs prepared by each Trade Subcontractor should include practices from the BMP categories outlined in this Plan. The SWPPP shall be implemented concurrently with the commencement of Trade Subcontractor construction activities and maintained by the Trade Subcontractor in a form that provides the Project with full compliance throughout the construction schedule for activities undertaken by the Trade Subcontractor. Though projects such as the subject Project that are serviced by the combined sewer system in San Francisco are not subject to the terms of the State Construction General Permit, Section A of the Construction General Permit describes in detail the requirements for a SWPPP, and the City and County San Francisco specifies that it should be used as a design guide. All construction sites must prevent illicit discharge into the SF combined sewer system.

Appendix A Inlet Location Map

TRANSBAY TRANSIT CENTER
Existing Catch Basin



Appendix B Construction Stormwater Controls Monitoring Checklist

CONSTRUCTION STORMWATER CONTROLS MONITORING CHECKLIST

WEBCOR/OBAYASHI TRANSBAY TERMINAL PROJECT

Date: _____

Inspector Name:_____**Description of Inspected Area**:_____

24hr Rainfall Amount: _____Weather Conditions:_____

Name of Trade Subcontractor Representative:_____ **Contact (Cell Phone #)**: _____

Erosion/Sediment Controls	Repairs Needed	OK	Owner of Repair Task	Comments/Date Corrected
Check Dams/Sediment Traps	☐	___	_____	_____
Drainage Swales/Lined Ditches	☐	___	_____	_____
Entrance/Outlet/ Tire Wash	☐	___	_____	_____
Barrier (Sandbag/Gravel Bag)	☐	___	_____	_____
Fiber Rolls/Wattles/ Silt Fence	☐	___	_____	_____
Covers (Geotextile/Fabric/Plastic)	☐	___	_____	_____
Inlet Protection	☐	___	_____	_____
Soil Tackifiers/Dust Control Emulsions	☐	___	_____	_____
Street Sweeping/Vacuuming	☐	___	_____	_____
Other:	☐	___	_____	_____

Good Housekeeping Controls	Repairs Needed	OK	Owner of Repair Task	Comments/Date Corrected
Concrete Washout	☐	___	_____	_____
Dewatering System/Operation	☐	___	_____	_____
Illicit Connection Detection	☐	___	_____	_____
Material Delivery/Storage/Use)	☐	___	_____	_____
Paving and Grinding Operations	☐	___	_____	_____
Pile Driving Operations	☐	___	_____	_____
Sanitary/Septic Waste Management	☐	___	_____	_____
Spill Prevention and Control	☐	___	_____	_____
Equipment Servicing	☐	___	_____	_____
Waste Management	☐	___	_____	_____

Visual Observation of Runoff	Repairs Needed	OK	Owner of Repair Task	Comments/Date Corrected
Sediment Laden/Turbid	☐	___	_____	_____
Oily Sheen	☐	___	_____	_____
Odor	☐	___	_____	_____

Documentation	Repairs Needed	OK	Owner of Repair Task	Comments/Date Corrected
SWPPP on Site	☐	___	_____	_____
BMP materials Stockpiled	☐	___	_____	_____
Spill Control in Compliance	☐	___	_____	_____
Discharge Permit Posted	☐	___	_____	_____
Training Logs Available	☐	___	_____	_____
Inspection Logs Filled Out	☐	___	_____	_____
Other:	☐	___	_____	_____

Comments:_____

_____

_____

Appendix C SFPUC Construction Pollution Prevention Guide

Don't Be Caught Unaware

New Pollution Prevention Requirements for the Construction Industry

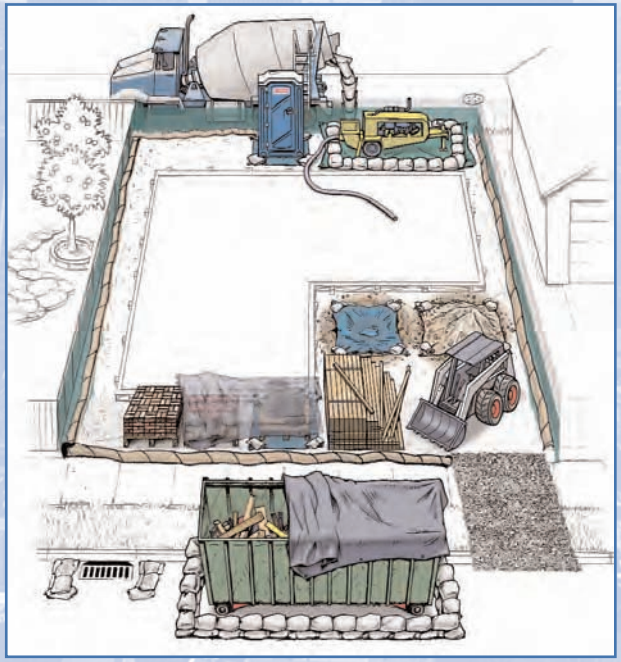
Water Pollution Prevention Program
San Francisco Public Utilities Commission
City and County of San Francisco
3801 3rd Street, Suite 600
San Francisco CA, 94124

Keep it on Site

Pollution Prevention Guide

for the

Construction Industry



Keep it on Site

The San Francisco Public Utilities Commission (SFPUC) is pleased to announce **Keep it on Site**, as part is its new program to prevent water pollution at construction sites.

Runoff from construction sites is a major source of water pollution, and is subject to requirements such as the development of a stormwater pollution prevention plan, a plan review, stormwater treatment measures, runoff monitoring and increased site inspections.

As part of our Construction Site Water Pollution Prevention Program, this brochure will assist construction professionals understand and comply with the new State and Federal laws. Here, you will find valuable information on methods used on construction sites to keep pollution, such as dirt and construction site debris out of our sewage treatment system and sensitive local water bodies.

We hope to make your job easier while keeping our city clean by providing you with the information to create an efficient and environmentally safe construction site.

Together, we have the ability to preserve the quality of life in San Francisco.

Water Pollution Prevention Program
San Francisco Public Utilities Commission
City and County of San Francisco
3801 3rd Street, Suite 600
San Francisco CA, 94124

Constuction Site Runoff: (415) 695-7310
http://pollutionprevention.sfwater.org

Water Pollution Prevention Program

The goal of the Water Pollution Program is to control pollution at its source in order to protect the Bay, ocean, creeks and lakes.

Useful links about other pollution prevention programs throughout San Francisco:

San Francisco Water Pollution Prevention Program
http://pollutionprevention.sfwater.org

State Water Board
www.waterboards.ca.gov/sanfranciscobay

International BMP Database
www.bmpdatabase.org

California Stormwater Quality Association
www.cabmphandbooks.com

Emergency Phone Numbers

To report illegal dumping of hazardous materials or wastes to the storm drain or sewer system, call San Francisco Water Pollution Prevention Program hotline: (415) 695-2020

Hazardous Spills: 911

Inspection and Enforcement Program

The Construction Site Inspection and Enforcement Program was established to ensure that all businesses operate in compliance with all appropriate stormwater laws and other City requirements. Contractors, site supervisors and property owners can be held responsible for violations, which may lead to a civil penalty of up to $25,000 per day and reimbursing the City for all expenses associated with clean up[1].

Construction materials such as paint, dirt, and trash often find their way into our storm drains,

[1] *San Francisco Sewer Use Ordinance Article 4.1, Public Works Codes*

Best Management Practices

jeopardizing San Francisco's sewer system, and polluting surrounding local water bodies.

Contractors are now required to implement what are known as Best Management Practices (BMPs) on all construction sites. BMPs are methods used to keep pollution out of our storm drains and catch basins and off of City property such as sidewalks, streets, and alleys. Installing and maintaining these BMPs on the construction site is critical to protecting our sensitive water bodies.

If your project is greater than 1 acre, you are required to prepare a formal Stormwater Pollution Prevention Plan (SWPPP). Please contact SFPUC's Environmental Regulation and Management for more information at (415) 695-7310.

The following is a list of BMPs and pollution prevention measures that must be implemented at all construction sites.

- Identify all storm drains and catch basins near the construction site and ensure all workers are aware of their locations to prevent pollutants from entering them.
- Protect all storm drain and catch basin inlets.
- Develop an erosion control and sediment control plan for wind and rain.
- Develop spill response and containment procedures.
- Inspect site regularly to ensure that BMPs are intact.
- Conduct daily site cleanings as needed.
- Educate employees and subcontractors about BMPs.
- Regularly maintain all BMPs at project site.

Best Management Practices

Site Overview

This drawing illustrates Best Management Practices (BMPs) that must be followed at all construction sites in San Francisco.

Preserve existing vegetation

Preserving existing trees and vegetation where possible will prevent erosion.

Paint and Stucco

All paint and stucco materials stored on the site must be contained and covered. It is illegal for contractors to wash out paintbrushes in the street or dump any residues in the sewer or the storm drain. Paintbrushes and spray guns shall be washed/cleaned out into a hazardous materials barrel or put back into its original container and disposed of properly. Latex paint should be dried in its container and placed in the garbage. Oil paint and thinners need to be recycled as hazardous wastes.

Perimeter Controls

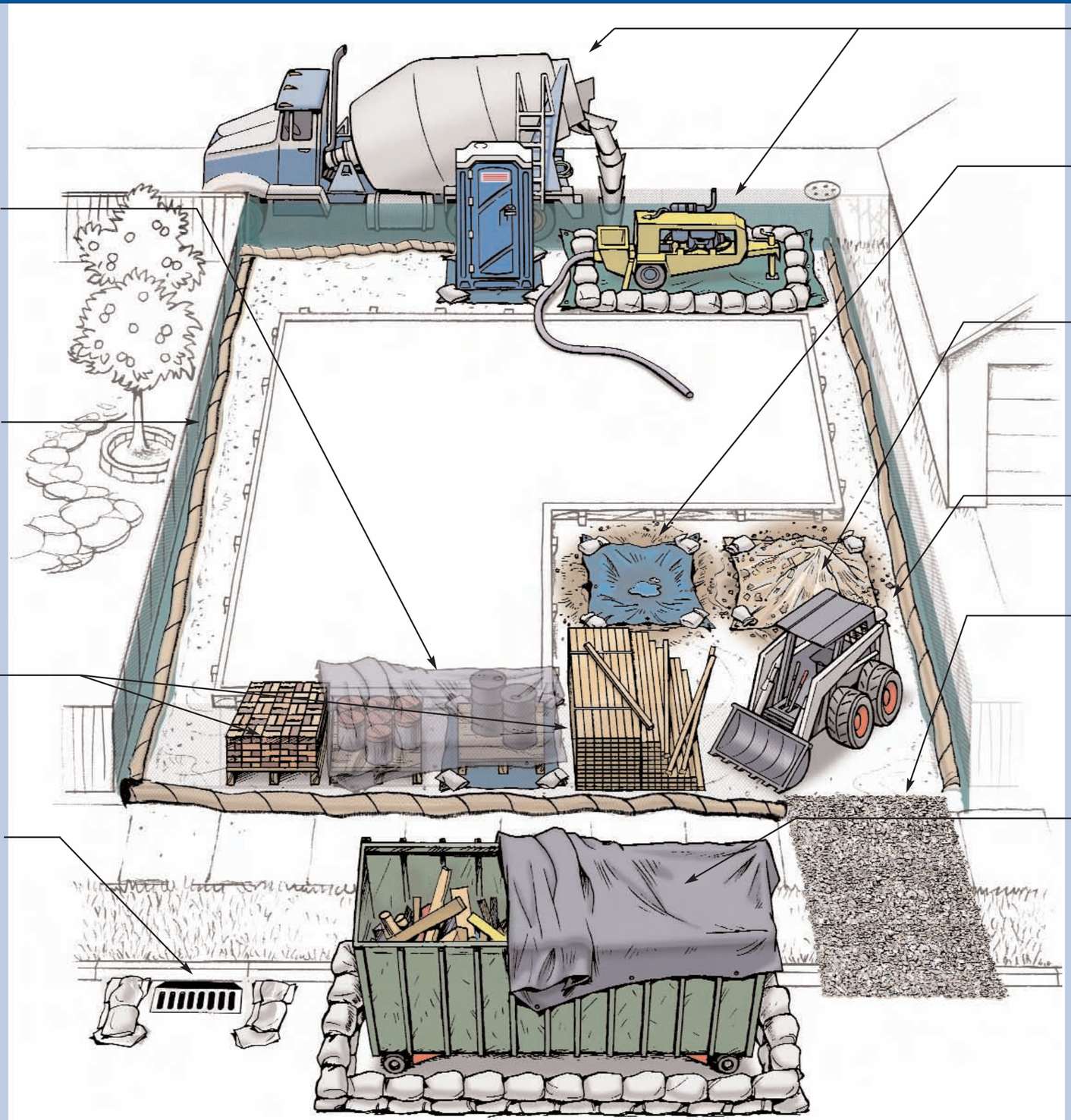
Gravel bags, silt fences, and fiber roles are acceptable perimeter controls, and shall be used to surround the entire site. Upstream perimeter controls prevent water from running into your site and downstream controls prevent sediment from leaving your site. Avoid running over perimeter controls with vehicles or heavy equipment, as they can damage the materials. Replace any damaged perimeter controls immediately. Keep extra absorbent materials and/or a wet/dry vacuum on site to quickly pick up unintended spills. Sites must also be checked and maintained daily.

Building Materials / Staging areas

Construction materials must be stored onsite at all times. The only exception is if you have a right-way-permit. Building materials should always be covered when not in use to prevent runoff caused by wind or rain. To apply for a right-of-way permit, contact the Bureau of Streets Use and Mapping at (415) 554-5810.

Storm Drains and Catch Basins

Storm drains must be protected at all times with perimeter controls, such as fiber rolls or gravel bags.



Concrete Trucks / Pumpers

Any concrete pumpers parked in public streets or alleys must be surrounded by perimeter controls, such as berms, gravel bags or fiber rolls. Tarps also must be placed beneath concrete pumpers at all times. Residual materials must be cleaned up as well.

Washout Area

The disposal of "wet" construction materials should be handled in the washout area. This includes paint, stucco, and concrete. Use a gravel bag or fiber roll and tarp to collect evaporation and prevent run-off in nearby areas. The washout area must be checked and maintained daily to ensure compliance.

Dirt and Grading

Mounds of dirt or gravel should be stored on site and covered each day with a tarp. When in use, all exposed dirt piles should be sprayed with water to prevent excessive dust. Tarps must be available and onsite to cover 125% of exposed areas during the rainy season (October-April).

Earthmoving Equipment

All earthmoving equipment should be stored onsite. Maintenance and repair should never be conducted on the site. All tracks and trails left by equipment leading to and from the site should be cleaned up immediately.

Construction site stone or rock access drives

Stone or rock access drives at any construction site should be made of 3-4 inch fractured stone aggregate with a geo-textile liner below the grade of the road. This is to be used by all vehicles to limit tracks of mud onto the streets.

Dewatering Activities

A batch discharge permit is required before releasing any construction site wastewater. Call 415-695-7310 for more information.

Dumpsters

Keep dumpsters covered. Areas around dumpsters should be swept daily.

Water Pollution Prevention Program
San Francisco Public Utilities Commission
City and County of San Francisco
3801 3rd Street, Suite 600
San Francisco CA, 94124
(415) 695-7310

siterunoff@sfwater.org
http://pollutionprevention.sfwater.org

Original artwork and concepts developed by the City of Coronado, CA revised by SFPUC Graphics staff personnel.

Exhibit L

TRANSBAY TRANSIT CENTER

Hazardous Materials Management Plan

Revision 1

March 11, 2011

WEBCOR/OBAYASHI JOINT VENTURE
SAN FRANCISCO, CA

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Hazardous Materials Management Plan
TRANSBAY TRANSIT CENTER
San Francisco, California

Webcor/Obayashi Joint Venture will be responsible for mandating that Hazardous Materials Procedures documents shall be prepared by Trade Subcontractors and also for observing the Trans Bay Transit Center site on a regular basis in keeping with the standard of care for a General Contractor. Webcor/Obayashi Joint Venture will also coordinate the day to day oversight of the Project as a whole, compliance with their contract obligations, the tracking of Trade Subcontractor costs, directing Trade Subcontractors to maintain the Project site in accordance with all applicable regulations, and for discussions with the City regarding compliance concerns. Contracts with Trade Subcontractors and Sub tier Subcontractors shall include a requirement to comply with the provisions of this Plan and to maintain compliance with all applicable City Ordinances and Codes. The Trade Subcontractors, Sub tier Subcontractors and their Project Superintendents for this project are hereby authorized to uphold, certify, and maintain their own Hazardous Materials Procedures Plans and to distribute it to all field personnel responsible for monitoring the site and maintaining compliance with Federal State and local regulations. All subcontractors, field personnel and their assigns that work at the site must conform to the requirements described in this Hazardous Materials Procedures developed for Trade Subcontractor activities and any alterations thereof made at the time and in the manner herein specified, and in all respects according to its intent and meaning, and shall indemnify and hold harmless Webcor Builders-Obayashi, its officers and agents, if failure to conform results in legal action or any other action. Duties of the Trade Subcontractors include but are not limited to:

- Maintaining full compliance with their Hazardous Materials Procedures plan and all City Codes and Ordinances.
- To this effect, the Trade Subcontractors shall have authority to mobilize their own crews for: monitoring and maintenance.
- Obtaining dewatering and other applicable permits necessary for the satisfactory completion of their contract.
- Stopping any construction activity that is in violation of municipal ordinances or codes or that is inconsistent with the provisions of the Trade Subcontractors Hazardous Materials Procedures plan.

The Transbay existing Terminal Building has been demolished and replaced with a multimodal Transit Center that includes an underground rail station. The depth of the excavation will be approximately 65 feet. A soil-cement shoring wall extending approximately 120 feet below ground surface (bgs) will form the perimeter of the Transit Center. A concrete buttress will be placed under the Transit Center adjacent to 301 Mission Street extending down to bedrock, approximately 240 feet.

This HMMP includes the requirement to mitigate potential health and safety (H&S) risks to the environment, workers, and site-user associated with the presence of certain constituents in the soil at the Site.

ENVIRONMENTAL REPORTS

Webcor /Obayashi Joint Venture have reviewed environmental reports prepared for the site. The following is a summary of the previous reports:

Phase I Environmental Site Assessment

The eastern portion of the Site is located in an area historically known as the Tar Flat which was a former industrial area developed during the Gold Rush Era of the 1850's. The Site has been occupied by numerous buildings involved in metal work facilities, foundries, and a coal yard. Also, the San Francisco Gas Light Company was located on the south central and south eastern edge Site. Coal tar waste is believed to have been discharged into the surrounding tidelands which include the eastern portion of the Site. The Transbay Terminal Building was constructed between the years of 1936 ad 1938 and was used as a passenger rail station. In 1958, the train tracks were removed and/or paved over and the Site has been used by buses since. In the 1950's, elevated concrete roadways were built on the Site as part of the Transbay Terminal and the Embarcadero Freeway. The Embarcadero Freeway was damaged during the 1989 Loma Prieta earthquake and was subsequently demolished. Since the 1990's, the Site has remained largely unchanged.

Significant findings included:

- The subsurface fill material at the Site may contain elevated concentrations of heavy metals and other residual petroleum hydrocarbons. These concentrations are likely associated with the presence of 1906 earthquake fill material located below the ground surface. Special soil handling and/or sampling will likely be required during any construction activities.

- Due to the proximity of the former San Francisco Gas and Light Plant (bounded by First, Fremont, Howard, and Natoma Streets) and the presence of manufactured gas by-product waste found on nearby properties, hazardous materials may exist in the subsurface beneath the Site. Special soil handling and/or sampling will likely be required during any construction activity.

- The soil and groundwater near the West section of the Transbay Terminal Building may contain petroleum hydrocarbons and VOCs associated with the former USTs release. Special soil and groundwater handling and/or sampling will likely be required during any construction activities.

Site Investigations

Limited soil and groundwater sampling has been performed beneath the ramps and near the Transbay Terminal building in 1999 and 2008 by Treadwell & Rollo. Also, they performed an Environmental Site Characterization (ESC) in 2009 at the Transbay Terminal which included collecting soil samples of the fill material and underlying sand from 23 exploratory borings, chemical testing of selected samples, and evaluating the results. Treadwell & Rollo collected groundwater grab samples from four of the exploratory borings for chemical analysis. The objective of the ESC was to assess the presence of petroleum hydrocarbon and metal contamination in the soil and groundwater beneath the Site that will be removed and disposed during the proposed construction activities. Concentrations of chemical compounds and metals detected in the soil and groundwater samples were compared to state and federal criteria for hazardous waste and disposal options.

The results of our environmental site characterization and other available subsurface information in the vicinity indicate the Site is generally underlain by approximately 5 to 16 feet of fill material, composed of loose to medium dense silty sand with varying amounts of brick, wood, tar, and glass fragments. The presence of fill material underlying the Site is likely associated with the 1906 earthquake and fire. A sand layer consisting of medium dense to very dense sand with variable amounts of silt approximately 15 to 18 feet thick underlies the fill material. Bay Mud is present beneath the sand layer.

Soil Results

TPHg was detected above the method reporting limit (0.1 mg/kg) in 3 of the 88 samples analyzed at concentrations ranging from 0.29 mg/kg to 26 mg/kg. TPHd was detected above the method reporting limit (2 mg/kg) in 9 of the 87 samples analyzed at concentrations ranging from 2.01 mg/kg to 54.8 mg/kg. TPHmo was detected above the method reporting limit (4 mg/kg) in 49 of the 88 samples

analyzed at concentrations ranging from 4.09 mg/kg to 137 mg/kg. Methylene chloride was detected in 3 of the 14 samples analyzed at concentrations ranging from 0.056 mg/kg to 0.24 mg/kg. No other VOCs were detected at or above methods reporting limits.

Total cyanide was not detected above the method reporting limit (1 mg/kg) in any of the 5 samples analyzed. No SVOCs, Pesticides, PCBs, Sulfide, or Cyanide were detected at or above method reporting limits in the samples analyzed. The pH measured in five samples ranged from 6.70 standard units (S.U.) to 8.66 S.U.

Total lead was detected in each of the samples analyzed at concentrations ranging from 1.2 mg/kg to 1,000 mg/kg (Table 2). Total lead was detected at concentrations at or above 50 mg/kg but below 1,000 mg/kg in 33 soil samples. Each of these soil samples was subsequently run for STLC and TCLP lead to determine soluble lead levels. One soil sample (TR-21-5) matched the State of California hazardous waste criteria of 1,000 mg/kg for total lead and subsequently run for TCLP lead to determine if this soil represents a federal RCRA hazardous waste. The TCLP result was 0.83 milligrams per liter (mg/L) so less than the federal RCRA hazardous waste criteria of 5 mg/L.

STLC lead was detected at or above the method reporting limits in 33 of the 34 samples analyzed at concentrations ranging from 0.13 mg/L to 52.1 mg/L. A total of 19 soil samples exceeded the State of California hazardous waste criteria of 5 mg/L. TCLP lead was detected at or above the method reporting limits in 22 of the 36 samples analyzed at concentrations ranging from 0.13 milligrams per liter (mg/L) to 14.5 mg/L. A total of one soil sample (TR-21-5) exceeded the Federal hazardous waste criteria of 5 mg/L.

The remaining metal concentrations were within normal[1] background ranges found in the western United States with the exception of zinc in sample TR-2-1.5 which was detected at a concentration of 5,600 mg/kg.

Groundwater Results

No oil and grease, TRPH, or SVOCs were detected above method reporting limits in any of the four samples. TSS was detected in all the samples with concentrations ranging from 110 mg/L to 160,000 mg/L. COD was detected in TR-19-GW, TR-20-GW, and TR-24-GW with concentrations of 24 mg/L, 20

[1] "U.S.G.S. Professional Paper 1270, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States," 1984.

mg/L, and 64 mg/L, respectively. Phenolics were detected in TR-24-GW at a concentration of 0.074 mg/L. TR-19-GW, TR-20-GW, and TR-24-GW were tested for pH with concentrations of 7.41 S.U., 7.07 S.U., and 7.45 S.U., respectively.

Trichloroethylene was detected in TR-8-GW at a concentration of 1.58 mg/L. 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, isopropyl benzene, n-propybenzene, styrene, toluene, and total xylenes were detected in TR-19-GW with concentrations of 0.0223 mg/L, 0.00568 mg/L, 0.0251 mg/L, 0.011 mg/L, 0.00561 mg/L, 0.00138 mg/L, 0.00143 mg/L, 0.0171 mg/L, and 0.0591 mg/L, respectively. Methyl tert-butyl ether (MTBE) was detected in TR-20-GW at a concentration of 0.00078 mg/L. Naphthalene was detected in TR-19-GW, TR-20-GW, and TR-24-GW at concentrations of 0.417 mg/L, 0.00371 mg/L, and 0.0548 mg/L, respectively. No other VOCs were detected in any of the samples.

Antimony was detected in TR-20-GW at a concentration of 0.012 mg/L. Arsenic was detected in TR-24-GW at a concentration of 0.024 mg/L. Barium was detected in TR-8-GW, TR-19-GW, TR-20-GW, and TR-24-GW at concentrations of 0.066 mg/L, 0.052 mg/L, 0.085 mg/L, and 0.022 mg/L, respectively. Chromium was detected in TR-8-GW and TR-20-GW at concentrations of 0.032 mg/L and 0.008 mg/L, respectively. Cobalt was detected in TR-8-GW and TR-20-GW at concentrations of 0.011 mg/L and 0.006 mg/L, respectively. Molybdenum was detected in TR-8-GW, TR-20-GW, and TR-24-GW at concentrations of 0.01 mg/L, 0.024 mg/L, and 0.009 mg/L, respectively. Nickel was detected in TR-8-GW, TR-20-GW, and TR-24-GW at concentrations of 0.054 mg/L, 0.052 mg/L, and 0.013 mg/L, respectively. Vanadium was detected in TR-8-GW, TR-19-GW, TR-20-GW, and TR-24-GW at concentrations of 0.032 mg/L, 0.012 mg/L, 0.012 mg/L, and 0.021 mg/L, respectively. Zinc was detected in TR-8-GW, TR-20-GW, and TR-24-GW at concentrations of 1.1 mg/L, 0.013 mg/L, and 0.011 mg/L, respectively. No other metals were detected in any of the samples.

SUBSURFACE CONDITIONS

The results of previous site investigations and other available subsurface information in the vicinity indicate the Site is generally underlain by approximately 5 to 16 feet of fill material, composed of loose to medium dense silty sand with varying amounts of brick, wood, tar, and glass fragments. The presence of fill material underlying the Site is likely associated with the 1906 earthquake and fire. A sand layer consisting of medium dense to very dense sand with variable amounts of silt approximately 15 to 18 feet thick underlies the fill material. Bay Mud is present beneath the sand layer.

Groundwater was encountered at the time of the investigation at depths ranging from 13 to 20 feet bgs. Groundwater levels may fluctuate depending on the season. The groundwater flow direction is likely to the northeast towards San Francisco Bay.

DISCUSSION

Based on the analytical results from the Site subsurface investigation and previous analytical results, some of the fill material contains elevated total and soluble lead levels at concentrations exceeding Federal and State of California hazardous waste criteria. The remaining fill material will most likely be accepted at a regulated Class II and/or Class III landfill. Based on previous environmental investigations at the Site and vicinity, the sand underlying the fill would likely be disposed of as unrestricted waste.

The area of fill material containing soluble lead concentrations exceeding the Federal hazardous waste criteria are near boring TR-21 at a depth of 5 feet bgs. The areas of fill material containing total and soluble lead concentrations exceeding the State of California waste criteria are located near borings TR-1 at depths of 1.5 and 5 feet bgs, TR-2 at depths of 1.5, 3 and 5 feet bgs, TR-4 at depths of 3 and 5 feet bgs, TR-8 at depths of 1.5 and 3 feet bgs, TR-14 at a depth of 3 feet bgs, TR-15 at a depth of 3 feet bgs, TR-16 at a depth of 5 feet bgs and 10 bgs, TR-17 at depths of 1.5, 3 and 5 feet bgs, TR-19 at a depth of 7.5 feet bgs, TR-20 at a depth of 7.5 feet bgs, and TR-21 at a depth of 3 feet bgs. The remaining fill material will be disposed as Class II non-hazardous waste.

Groundwater is encountered at depths ranging from approximately 13 to 20 feet bgs across the Site. The proposed construction activities most likely will encounter groundwater in quantities that will require its removal from the subsurface. Prior to discharge into the sanitary sewer system, the dewatering contractor will obtain a batch groundwater discharge permit from the San Francisco Public Utilities Commission (SFPUC).

Because hazardous materials were detected at the Site, a SMP and a HASP will be required prior to construction. The Subcontractor HASP will outline proper soil handling procedures and H&S requirements to minimize worker and public exposure to hazardous materials during construction.

RECOMMENDATIONS FOR MITIGATIVE ACTIONS

The results of previous environmental investigations at and near the Site indicate the fill material beneath the Site contains elevated concentrations of heavy metals and petroleum hydrocarbons. The presence of these compounds poses soil management and potential H&S issues to be addressed as part of the Site

development activities. The soil management objectives for the Site are to minimize exposure to construction workers at the Site, nearby residents and/or pedestrians, and future users of the Site to constituents in the soil.

Health and Safety Issues

There may be a potential H&S risks associated with the heavy metals and petroleum hydrocarbons detected at the Site. There also may be a potential for this soil to affect construction workers at the Site, nearby residents and/or pedestrians, and future users of the Site. The routes of potential exposure to the petroleum hydrocarbons and metals could be through three pathways: 1) dermal (skin) contact with the soil, 2) inhalation of dusts, and 3) ingestion of the soil.

The most likely potential for human exposure to the petroleum hydrocarbons and metals in the soil will be during soil excavation operations. Because on-site materials contain concentrations of petroleum hydrocarbons and lead in excess of the Proposition 65 guidelines, there is a requirement that appropriate health and safety procedures, as well as warning requirements, be implemented during construction. The trade sub contractor will be responsible for establishing and maintaining proper H&S procedures to minimize worker and public exposure to Site contaminants during construction. Webcor/Obayashi Joint Venture will oversee this process and require the development and implementation of a comprehensive HASP, which should be prepared by a certified industrial hygienist that represents each subcontractor or its sub tier contractor.

The H&S training requirements, i.e. trained in accordance with Section 1910.120 of 29 Code of Federal Regulations (HazWoper training), specific personal hygiene, and monitoring equipment that will be used during construction to protect and verify the H&S of the construction workers and the general public from exposure to constituents in the soil. Air monitoring to evaluate the amount of airborne particles during excavation will be required by the tub trade contractors. All reports will be kept in a central location managed by Webcor/Obayashi Joint Venture.

A representative of Webcor/Obayashi Joint Venture and the Site health and safety officer (HASO) representing the trade subcontractor will be on site at all times during excavation activities to ensure that all health and safety measures are maintained. The Webcor/Obayashi Joint Venture representative or HASO will have authority to direct and stop (if necessary) all construction activities in order to ensure compliance with the HASP.

The purpose of the HASP is to provide field personnel with an understanding of the potential chemical and physical hazards, protection of any off-site receptors, procedures for entering the project Site, H&S procedures, and emergency response to hazards should they occur. All project personnel shall read and adhere to the procedures established in this HASP. A copy of all plans will be kept on site during field activities and will be reviewed and updated as necessary.

The general public will be protected through the following measures maintained by trade subcontractors and monitored by Webcor/Obayashi Joint Venture:

- the Site will be fenced;
- exposed soil at the construction Site will be watered as necessary to prevent visible dust from migrating off-site;
- soil stockpiles will be covered;
- water will be misted or sprayed during the loading of soil onto trucks for off haul;
- trucks transporting contaminated soil will be covered with a tarpaulin or other cover;
- the wheels of the trucks exiting the Site will be cleaned prior to entering public streets;
- public streets will be swept daily if soil is visible; and
- Excavation and loading activities will be suspended if winds exceed 20 miles per hour.

Soil Management

The proposed construction activities will disturb soil during the excavation activities including: soil handling during archeological investigations, shoring wall installation, construction of a buttress for the adjoining 301 Mission Street property, timber pile removal and disposal, utility relocation and the mass excavation for the new Transbay Transit Center. During all excavation activities, dust control measures will be implemented to reduce potential exposure. These measures shall include moisture-conditioning the soil using dust suppressants and covering the exposed soil and stockpiles with weighed down plastic sheeting to prevent exposure of the soil.

Since all the contaminated fill material will be excavated and disposed of off-site, there will be no risk of direct contact with the underlying fill material by future Site users.

The Site's HASP (prepared by the trade sub contractor) will contain additional dust monitoring, action levels, dust control measures, and work stoppage provisions that will be followed during construction activities.

Soil Segregation and Disposal

Before any excavation activities begin at the Site, a TJPA representative shall be provided documentation from the excavation contractor that the accepting landfill facility for the soil from Transbay Terminal project has been provided with and has reviewed all analytical data collected from the Site. TJPA shall approve all off-site disposal facilities and soil transportation contractors, including, without limitation, available insurable coverage, and prior to the shipment of any soil or other waste materials. The TJPA representative will provide testing and schedule the intervals that testing shall occur.

The results of previous soil analytical testing indicate that some of the soil located at the Site will be disposed off-site at a Class I landfill, however additional chemical testing of the soil may be required by the landfill prior to disposal. The excavation contractor shall be responsible for tracking the disposition of soil removed from the Site. Any excavated soil characterized as a hazardous waste shall be tracked using the Uniform Hazardous Waste Manifest System (USEPA Form 8700-22), as applicable. Soil not characterized as a hazardous waste shall be tracked using non-hazardous bills of ladings. All documentation will be provided to TJPA during the excavation activities.

If soil stockpiling of suspected contaminated soil is to be performed, the excavation contractor shall establish appropriate soil stockpile locations on the Site to properly segregate, cover, control dust, profile, and manage the excavated soil. Stockpiled soils are to be placed on top of one layer of 10-mil polyethylene sheeting (or equivalent), such as Visqueen. When stockpiled soil is not actively being handled, top sheeting will be adequately secured so that all surface areas are covered.

Soil Disposition

The Trade Sub contractor will establish appropriate off-site soil disposal locations and direct truck loading scheduling and/or soil stockpile locations on the Site to properly segregate, cover, moisture control, and profile the excavated soil. Soil profiling criteria will ultimately depend on the acceptance criteria of the landfills receiving the soil. These procedures will be established by the excavation contractor and coordinated with the proposed landfills prior to initiating soil excavation. It is not anticipated that soil will be reused at the Site for construction-related activities.

The Webcor Obayashi JV will, on behalf of TJPA, will be responsible for tracking final soil dispositions and turn that information to the TJPA representative. Any excavated soil considered hazardous waste will be tracked using the Uniform Hazardous Waste Manifest System (USEPA Form 8700-22), as applicable. Soil not considered hazardous waste will be tracked using non-hazardous bills of lading. These two systems will be used to comply with appropriate state and local requirements.

The contractor will arrange for transportation of all wastes off-site. Hazardous and non-hazardous waste will be transported to the appropriate disposal facility using a permitted, licensed, and insured transportation company. Transporters of hazardous waste must meet the requirements of 40 CFR 263 and 22 CCR 66263. All trucks transporting bulk hazardous waste will be properly lined and covered with compatible materials. Trucks will be decontaminated prior to any use other than hauling contaminated materials unless the contaminated material was already double-contained. The contractor will be responsible for preparing and submitting traffic control plans for trucks entering and leaving the Site. A decontamination pad location plan and decontamination procedures will be prepared. A route plan will also be prepared showing the expected route each truck will use to reach each landfill.

For soil that is to be exported off-site that is characterized as a hazardous waste, an appropriate USEPA Generator Identification Number will be recorded on the hazardous waste manifests used to document transport of hazardous waste off-site. The hazardous waste transporter, disposal facility, and U.S. Department of Transportation (DOT) waste description required for each manifest will be determined on a case-by-case basis. A description of the number of containers being shipped, the type of container, and the total quantity of waste being shipped will also be included on each manifest.

Webcor/Obayashi Joint Venture representative will be responsible for overseeing the sub trade provides accurate completion of the hazardous waste manifests and nonhazardous bills of lading. Records of all wastes shipped off-site will be maintained by TJPA and will be made available for inspection on request. The final destination of wastes transported off-site will be documented in the Site Closure Report that will be prepared by others.

Soil Sampling

If needed, chemical testing of the stockpiled soil will be performed to profile the soil for disposal. Soil profiling criteria depends on the proposed landfill location or off-site receiving facility. These procedures shall be established by the excavation contractor and coordinated with the proposed landfills prior to initiating soil excavation. Typical soil profiling requirements are one four-point composite sample per 500 to 750 cubic yards to be disposed.

If soil samples are required for analysis, the samples shall be collected by the TJPA representative and tracked.

Timber Pile Removal and Disposal

Part of the foundation system for the Transbay Terminal building includes timber piles beneath the basement slab. During the excavation activities these timber piles will be removed and disposed of. The timber piles will be extracted from the subsurface and as much as possible removal of all the soil which is attached to the timber pile will need to be performed. The extracted timber piles will be segregated, tested by the TJPA representative and transported. If disposed of as a Treated Wood at a Class II non-hazardous waste with copies of the Bill of Ladings will be submitted to TJPA representative.

Underground Storage Tank Removal and Disposal

If a underground storage tank (UST) and/or and associated product lines are found, arrange for a licensed tank removal contractor to properly remove and dispose of the UST. Proper permits and notifications should be in place prior to removing the UST. If soil staining is observed, place the affected soil into a stockpile onto plastic sheets and cover with plastic sheets. The Environmental Consultant will complete soil sampling and analysis tasks for UST closure in accordance with San Francisco Fire Department (SFFD) and SFDPH.

Coal Gasification Residual Material

The former San Francisco Gas Light Company was located on the south central and south eastern edge of the Site. Coal tar waste is believed to have been discharged into the surrounding tidelands which include the eastern portion of the Site. Excavation in this area of the Site will most likely encounter residual coal tar waste. Some of the coal gasification residual material encountered may be former piping, coal tar, phenols, heavy metals, and polynuclear aromatic hydrocarbons. If any coal gasification residual material is encountered during the excavation, the material will be stockpiled onto plastic sheeting and covered with plastic sheeting. The TJPA representative will collect soil samples and analyzed the material to determine proper disposal of the material.

Groundwater Management

Groundwater is encountered at depths ranging from approximately 13 to 20 feet bgs across the Site. The proposed construction activities most likely will encounter groundwater in quantities that will require its removal from the subsurface. Prior to discharge into the sanitary sewer system, the dewatering Trade Subcontractors will obtain a batch groundwater discharge permit from the San Francisco Public Utilities

Commission (SFPUC). Based on analytical results of the groundwater samples analyzed during previous Site investigations, approval of the groundwater discharge from the dewatering system would be granted by SFPUC.

Dust Control

Prior to initiating construction activities, a dust control plan (prepared by Trade Subcontractor and specific to this project) will be implemented to reduce potential exposure during excavation and loading operations. This document will contain measures to protect construction workers and the public including: dust monitoring, action levels, dust control measures, and work stoppage provisions that will be followed during construction activities.

Dust control will be accomplished through implementation of engineering controls, including light water spraying or misting of stockpiled soil, truck loading areas and work areas. Misting or spraying will be performed to sufficiently reduce fugitive dust emissions, but limited to prevent water runoff. Efforts will also be made to minimize the soil drop height from an excavator's bucket onto soil piles or into transport trucks. The site-specific dust control plan will as needed, include some or all of the following procedures: site fencing; wetting soil; analysis of wind direction; dust monitors at the work zone and at the Site perimeter and appropriate record keeping, visible inspection; establishing a hotline for community response; limiting excavation area; soil storage regulations (e.g. covering stockpiles); windbreaks; paving; truck loading requirements (e.g. covering vehicles or excavator bucket drop heights); Site vehicle speed limits; wheel washing; street sweeping; termination of excavation if winds exceed 20 mph; and/or addition of soil stabilizers; or other responses as needed.

Contingency Procedures

Hazardous materials including; sumps and/or vaults, asbestos piping, former monitoring wells, and soil with petroleum hydrocarbon odors and/or stains may be encountered during excavation activities. If unanticipated hazardous materials are encountered, the following procedures will be maintained by trade subcontractors and monitored by Webcor/Obayashi Joint Venture:

- stop work in the area where the suspect material was encountered and cover it with plastic sheets;
- notify the Webcor/Obayashi Joint Venture representative, the TJPA Environmental Consultant for Site a inspection and appropriate action in the suspect area; and
- review the existing H&S plan and make revisions, if necessary; and

- Have appropriately trained personnel on Site to work with the affected materials, once directed by Webcor/Obayashi Joint Venture.

If a sump and/or vaults are encountered during excavation activities, contact the TJPA Environmental Consultant for inspection and appropriate action. If no liquid, obvious staining or odors are observed, sump and/or vaults will likely be destroyed and disposed of. If liquid is present within the sump and/or vault and/or obvious staining and odors are observed, the TJPA, Environmental Consultant will collect samples for analyses to determine how to properly disposal of the material.

If stained soil or odors are observed, plastic sheeting will be placed over the affected area and the TJPA Environmental Consultant will be contacted for inspection and appropriate action. If the material is to be excavated, the material will be stockpiled onto plastic sheeting and covered with plastic sheeting. Soil samples will be collected and analyzed to determine proper disposal of the material.

REFERENCES

Site Mitigation Plan Transbay Transit Center: Treadwell & Rollo, Inc. dated March 2010.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
BALFO900-0001	**BSE Natoma Street Trestle Access**	**Closed**	**04/18/2011**	**05/02/2011**	**04/20/2011**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP Masashi Kojima **Answered By:** Webcor Construction LP Masashi Kojima

Co-Author:

REQUEST:

Reference Project Bidding Manual (Exhibit A)

Per the requirements outlined in the project bidding manual (Exhibit A), BBII has developed our trestle design to provide access for Natoma street extending from gridline 11.5 at the center of the excavation (grid line E) to gridline 10 at the centerline of the shoring wall. After staking out this point on the shoring wall, it is apparent that the 530 Howard St. building is in conflict with the access point. See the attached sketch and photos indicating the approximate location of 530 Howard in relation to the trestle access. Please advise if the Natoma St. access point should be changed to a more suitable location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The geometric requirements for Access Trestle in Exhibit A, A3 and SL-001 are schematic and minor adjustments can be acceptable based on the actual site conditions.
For this particular item, it is acceptable to shift the Natoma Access of the Access Trestle to west by approximately 30 ft.

BALFO900-0001.1	**BSE - Natoma Street Trestle Access**	**Closed**	**05/05/2011**	**05/15/2011**	**05/09/2011**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor/Obayashi Joint Ve Masashi Kojima

Co-Author:

REQUEST:

Reference Project Bidding Manual (Exhibit A)

Per our discussion at our meeting on 4/26/11, the response to BBI RFI 076 indicated that BBII should relocate the access trestle but was not specific enough. Please provide an exact location for the Natoma St. offshoot that will satisfy the access requirements of future trade subcontractors. BBII requests a meeting to discuss any impacts of the relocation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Access Trestle design should be included in BSE Trade Subcontractor's scope.

The geometric requirements for Access Trestle in Exhibit A, A3 and SL-001 are schematic and minor adjustments can be acceptable based on the actual site conditions. The "exact" locations should be designed by BSE Trade Subcontractor as the Design-Built scope.

Also, please refer to the General section regarding to the coordination in Exhibit A, Attachment 3.

BALFO900-0002	**BSE - Scaffolding For Interim Screen Wall**	**Closed**	**03/21/2011**	**03/31/2011**	**03/22/2011**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP Masashi Kojima **Answered By:** Webcor/Obayashi Joint Ve Masashi Kojima

Co-Author:

REQUEST:

Reference attached photo

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The scaffolding installation is per the response to RFI

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Scaffolding is currently being erected for the interim screen wall within Zone 4. It appears that the scaffolding lies in the path of the CDSM wall and will conflict with our work (See attached photo). When is the scaffolding scheduled to be completely dismantled and removed from the area?

T-0034. The conflict mentioned is unconfirmed. BBI shall provide a work plan for pile removal and CDSM installation in zone 4 showing specific activities and schedule dates for coordination purposes.

BALFO900-0003 **BSE - Additional Project Control** **Closed** **04/19/2011** **04/26/2011** **04/25/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP Masashi Kojima **Answered By:** Webcor Construction LP Masashi Kojima

Co-Author:

REQUEST:

Reference Specification 01 10 50 and Drawing GT-0100

Drawing GT-0100 indicates four points established for control. Our surveyors, KCA Engineers, are concerned about maintaining consistent control between various contractors on the project with such extensive distance between the provided control points. It is suggested that additional control points with horizontal and vertical coordinates be provided at the following locations:
- Howard St. at Fremont St.
- Howard St. at First St.
- Howard St. halfway between First and Second St.
- Mission St. at Fremont St.
- Mission St. at First St.
- Mission Street at Shaw Alley.

KCA RFI 001 has been attached for reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to IFB Documents for TG05.1 Survey Package contained in the compact disk, which sent to BBII on 04/22/2011, Transmittal No. 2011.04.22-0006. After review and define the scope for TG05.1 Survey Package, please identify missing bench marks specified in your specification and TG05.1 Package.

BALFO900-0004 **BSE - CDSM Pile Tolerance** **Closed** **06/06/2011** **06/16/2011** **06/13/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference Specification Section 31 56 13

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Trade Subcontractor is responsible for the necessary means and methods to install the CDSM

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In reference to the CDSM Shoring Wall DFOW QC meeting held in BBII's office on June 1, 2011, please find below the following RFI submitted by BBII's sub-contractor DND Construction:

"The reference specifications for tolerance relative to centerline of wall for both the CDSM and steel soldier beams are extremely strict compared to what is common for this nature of work, particularly given the depth of the work. It is also more strict than if the verticality tolerance (1:150 CDSM/1:200 pile) is applied at a conservative excavation depth of 60 feet. Can the tolerance be changed from 0" in/2" out (CDSM) & 0" in/3" out (piles) to a uniform 0" in/4" out"?

Shoring Wall within the tolerances specified in Specification section 31 56 13.

BALFO900-0005 **BSE - Temporary Power For Construction** **Closed** **06/21/2011** **07/01/2011** **07/05/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor Construction LP Nhi Tran

Co-Author:

REQUEST:

Temporary Power Package TG05.2 was awarded to Bass Electric on 5/12/2011. Drawing SL-003 shows locations for Temporary Power Skids that will be used to facilitate construction. Please provide dates of when the following Temporary Power Skids are going to be made available to BBII:

Skid 1 by Natoma St.
Skid 2 by Minna St.
Skid 3 by First St.
Skid 4 by Fremont St.
Skid 5 by Beale St.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to Exhibit A, IV. B., mentioning "Temporary power skids might be available at beginning of the dewatering."
For the latest information, please refer to the latest weekly update schedule for the available dates of Temporary Power Skids. The next latest weekly update schedule will be issued on 07/06/2011.

BALFO900-0006 **BSE - Discharge Point for Buttress Operation** **Closed** **06/23/2011** **07/05/2011** **07/05/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor Construction LP Nhi Tran

Co-Author:

REQUEST:

Please reference attached sketch.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This question is not appropriate as RFI, but logistics

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII is planning to discharge water generated by the Buttress operation into the sewer manholes shown in the sketch. Please confirm that this is acceptable. Note that location of sewer manholes is approximate and will be per As-Built. Temporary piping layout shown in the attached sketch is diagrammatic.

Submittal. Please submit as Buttress Water Discharge Logistics Plan in Zone 4 accordingly.

BALFO900-0007 **BSE - Archeological Dig Site D-3 Information** **Closed** **10/13/2011** **10/23/2011** **10/13/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor/Obayashi Joint Ve Masashi Kojima

Co-Author:

REQUEST:

Reference Specification Section 01 13 50 and Sheet D-1002

Due to the recent Archeological Investigation at dig site D-3, at the depth of 10-25 feet, BBII request confirmation that the excavation, observation, and all the investigations at that depth have been completed.

Please Confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The area of archaeological investigation dig approx. D-3 was released to BBII 10/5/2011.
Per Ural Yal BBII would perform the backfill of the archaeological investigation dig at no cost to W/O or the TJPA in consideration of CR(s) T-020 & T-005.

BALFO900-0008 **BSE - PG&E Dimensions at Tie-in Points - VOID** **Closed** **10/12/2011** **10/12/2011** **10/13/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Balfour Beatty Infrastructu Ural Yal

Co-Author:

REQUEST:

Reference CR T-017 and attached drawings

The drawings provided for the installation of the PG&E phases 2 utilities do not provide dimensions for the tie ins between the existing utilities and the phase 2 utility installation. Please see attached modified sketch indicating areas of concern.

Please provide updated drawings, with dimensions from existing property lines to the tie in locations for the existing utilities and phase 2 utilities.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Update by BBI -

Per PG&E meeting 10/13/2011 (Phase II Utility Installation)
The location of existing PG&E tie in points / connection points will be determined in the field with PG&E inspector & BBII.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Confirm MH/Vault number for the tie north west of A line
(see attached drawing)

BALFO900-0009 **BSE - D.I. Installation on First Street** **Closed** **10/27/2011** **11/06/2011** **10/31/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Webcor/Obayashi Joint V Nhi Tran

Co-Author:

REQUEST:

Reference Sheet U-3021 and D-2230

The attached drawing shows a new Catch Basin #501
RUP drawing U-3021
BSE drawing D-2230 to be installed on First Street.

Currently this CB does not exist. Please confirm it will be installed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Catch Basin #501 was deleted per RFI #U-0101, response issued on 2/28/2011.

BALFO900-0010 **BSE - Conflicts between revised trainbox columns and internal bracing** **Closed** **10/31/2011** **11/10/2011** **11/03/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference Specification Section 31 55 00

BBII received additional comments on the internal bracing from Thornton Tomasetti on 10/17/11, after the 100% submittal had already been reviewed and approved by DBI. The comments provided include revised column locations and sizes that differ from our BSE drawings.

The attached drawings highlight conflicts and reduced clearances presented by these revisions to the trainbox columns. As trainbox drawings are not available to BBII, please provide direction on where to locate bracing elements to resolve these conflicts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI was superseded by RFI T-251.1 and the answer is no longer required.

☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
BALFO900-0011	BSE - CR T-018 Gate Requirements	Closed	11/02/2011	11/12/2011	11/03/2011	Potentially	

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference CR T-018

CR T-018 issued to BBII indicates that the gates need to be installed at the fire lane access of 540-580 Howard. The gates will prevent access to the rear of the building from Howard and Natoma Street.

Please advise if the gates specified in CR T-018 are due to be installed by BBII.
If BBII is requested to install the gates under CR T-018, please provide a specification and detail for the gate system that will be in meet fire regulation and standards.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI was covered by the response for RFI T-256 and the answer is no longer required.

BALFO900-0012	BSE - Natoma Street Trestle Access - VOID	Closed	11/01/2011	11/11/2011	12/02/2011	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference CR T-018, Specification Section 01 53 13, BBI Letter #4225-000-0145 (attached), and attached sketch

CR T-018 included drawings for access to the side and rear of 540 Howard St. BBII issued letter 4225-000-0145 in response and included a sketch highlighting a conflict between the proposed building access and the Natoma St. trestle offshoot.

The Natoma St. trestle offshoot was originally specified to span from Grid 11.5 at the center of the excavation to Grid 10 at the edge of excavation. The offshoot was moved further west per [W/O] response to the conflict with 530 Howard St.

The 540 Howard St. building access arrangement as proposed in CR T-018 does not provide sufficient access to the Natoma offshoot (see attached sketch). Please provide direction if the offshoot is to be relocated or eliminated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please consider the following the response to BBII's RFI(s) 243 & 251.

Please refer to marked-up sheets SH-2202 & SH-2200 for the revised trestle configuration. The depicted configuration is to be effective immediate.

BALFO900-0012.1	BSE - Natoma Street Trestle Access	Closed	12/06/2011	12/16/2011	12/06/2011	Potentially	☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference CR T-018, Specification Section 01 53 13, BBI Letter #4225-000-0145 (attached), and attached sketch

CR T-018 included drawings for access to the side and rear of 540 Howard St. BBII issued letter 4225-000-0145 in response and included a sketch highlighting a conflict between the proposed building access and the Natoma St. trestle offshoot.

The Natoma St. trestle offshoot was originally specified to span from Grid 11.5 at the center of the excavation to Grid 10 at the edge of excavation. The offshoot was moved further west per [W/O] response to the conflict with 530 Howard St.

The 540 Howard St. building access arrangement as proposed in CR T-018 does not provide sufficient access to the Natoma offshoot (see attached sketch). Please provide direction if the offshoot is to be relocated or eliminated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

REVISED RESPONSE to BALFO900-0012: Delete the Natoma St. access and provide credit proposal.

BALFO900-0013 **BSE - Access Trestle at Gridline 3 - VOID** **Closed** **11/21/2011** **12/01/2011** **12/02/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Nhi Tran **Answered By:** Webcor/Obayashi Joint V Masashi Kojima

Co-Author:

REQUEST:

Reference RFI #T-0251.1 and Specification Section 01 53 13

In order to avoid conflicts with both the Thornton Tomasetti "pile exclusion zones" provided in response to RFI T-0251.1, the first trestle pier near gridline 3 must be relocated. BBII Proposes two options:

Option A - Move the last pier East to clear the pile exclusion zones and adjacent bracing struts, resulting in a trestle deck that ends approximately 15' East of gridline 3. The capacity of this end span would be increased to allow for the additional reach.

Option B - Move the last pier West and extend the end

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please consider the following the response to BBII's RFI(s) 243 & 251.

Please refer to marked-up sheets SH-2202 & SH-2200 for the revised trestle configuration. The depicted configuration is to be effective immediate.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

span to clear the pile exclusion zones and adjacent bracing struts, resulting in a trestle deck that ends approximately 20' West of gridline 3.

Please advise how BBII should proceed.

BALFO900-0013.1 **BSE - Access Trestle at Gridline 3 Revised W/O Response to BALFO900-0013** **Closed** **12/06/2011** **12/16/2011** **12/06/2011** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor/Obayashi Joint Ventu Masashi Kojima **Answered By:** Webcor/Obayashi Joint Ve Masashi Kojima

Co-Author:

REQUEST:

Reference RFI #T-0251.1 and Specification Section 01 53 13

In order to avoid conflicts with both the Thornton Tomasetti "pile exclusion zones" provided in response to RFI T-0251.1, the first trestle pier near gridline 3 must be relocated. BBII Proposes two options:

Option A - Move the last pier East to clear the pile exclusion zones and adjacent bracing struts, resulting in a trestle deck that ends approximately 15' East of gridline 3. The capacity of this end span would be increased to allow for the additional reach.

Option B - Move the last pier West and extend the end span to clear the pile exclusion zones and adjacent bracing struts, resulting in a trestle deck that ends approximately 20' West of gridline 3.

Please advise how BBII should proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

REVISED RESPONSE to BALFO900-0013: Option A

BALFO900-0014 **BSE - Location of Security Cameras** **Closed** **01/16/2012** **01/26/2012** **01/16/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP David Fields **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

According to Exhibit A - Rev H of the trade subcontractors

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Exhibit A - Rev H:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

bid manual. "Temporary poles shall include conduit for security cameras, power at the pole tops for security cameras, and mounting hardware for security cameras." Please advise on quantity and the location of these temporary poles.

"Trade Subcontractor shall be responsible for installing and maintaining temporary lighting at the perimeter traffic/pedestrian barricades, at pedestrian walkways, and as required to provide code-minimum lighting at egress paths, as well as sufficient foot candle lighting levels to safety perform the work at all times, including within the excavation. At a minimum, Trade Subcontractor's lighting plan will include temporary poles at street level. In addition to supporting lighting, temporary poles shall include conduit for security cameras, power at the pole tops for security cameras, and mounting hardware for security cameras. Security cameras will be installed and maintained by others. Temporary lighting work item includes, but is not limited to, installing lighting poles, installing all hardware, switch boxes, breakers, conduits, pulling strings among temporary power skids /generators /lighting poles and maintenance required for temporary lighting works. Trade Subcontractor's lighting plan will be a submittal requirement for the project. Trade Subcontractor is responsible for maintaining the temporary lighting and related facilities for each zone until completion of Mud/Rat Slab construction. Those facilities for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Temporary lighting for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time."

BALFO900-0015 **BSE - Beale St. Trestle Pile Conflict Follow-Up** **Closed** **02/08/2012** **02/18/2012** **02/08/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

The response to RFI T-264.1 requested BBII provide the loading that would placed onto the CDSM wall.
This response leads us to believe that the option to leave the pile in the current location was unacceptable.
Please confirm that the pile must be moved and provide a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

detailed location of where the pile placement would be accepted.
Upon receipt of this information BBII can accurately determine the load to placed on the Wall for Arup¿s review.

BALFO900-0016 **BSE- Stabilization of CDSM Wall** **Closed** **04/10/2012** **04/20/2012** **04/10/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP Kirk Nielsen **Answered By:** Webcor Construction LP Kirk Nielsen

Co-Author:

REQUEST:

BBII is requesting direction for a method to stabilize the unimproved soil conditions along the interior face of the CDSM wall. This request was generated after a field review of the wall conditions revealed a potential safety issue regarding workers working on the mass excavation, bracing and dewatering activities

The current condition of the CDSM wall includes unimproved soil conditions that have the potential to become detached from the wall and create a falling safety hazard to workers as the mass excavation and bracing reach lower depths.
Please reference attached photo for visual details.

Based on our records, the CDSM wall met all the specification requirements for uniformity and improved soil as per section 31 56 13 of the contract specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

During the 4/4/12 BSE meeting AAI indicated that a RFI was not the correct format to inquire with regard to a safety issue the responsibility of the contractor. Further in addition to the +1" cavity issue per section 31 00 00.3.8.L, contrary to section 3156 13.3.7.C which indicates no individual lump of unimproved soil shall exceed 6", there are a pervasive amount of +6" lumps of unimproved soil throughout the CDSM. W/0 will contact a waterproofing manufacture to investigate this issue further. KN 4/6/12

BALFO900-0017 **BSE - Beale Street Bridge Pile Location Conflicts** **Closed** **09/19/2012** **09/29/2012** **09/19/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Diarmuid Cregg **To:** Webcor Construction LP David Fields **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

The response to submittals TG0300-206.1 and TG0300-261.1 states that BBII¿s Beale St Bridge fails to comply with specification section 01-53-13.1.3D with regard to coordination and constructability, but does not elaborate. BBII assumes this is related to future work not included in

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This addresses only one of W/O's multiple comments in response to BBII's submittal TG0300-206.1 and TG0300-261.1. Columns were clearly depicted on, to include however not limited to, 1/S1-2027. Beams atop said columns were depicted on TG03 drawings,

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

the BSE contract documents. BBII had previously coordinated pile locations, and cleared future concrete structures shown in drawings that were available to us, however please advise us what clashes you have detected or what specific clearances revisions are necessary for future work, so BBII can properly incorporate into our design.

to include however not limited to, 2/A1-2005, 3/A1-6000, and A/S1-3201. Should BBII have further inquiries please footnote on BBII's revised submittal and remit.

BALFO900-0018 **BSE - Beale Street Bridge Pile Location Conflicts** **Closed** **09/24/2012** **10/04/2012** **09/24/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP David Fields **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

Based on the discussions at today's BSE meeting, BBII understands that the W/O's intention is to relocate the Beale Bridge from the location depicted in BBII's current submittal in order to accommodate work of future trade packages. Please provide detailed information regarding where to place the bridge, and what horizontal and vertical clearances are required.
Time is of the essence for BBII to receive this additional, previously unavailable information, so the re-design process can be started as soon as possible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to TCCO response to submittal TG0300-206.1.

BALFO900-0019 **BSE - Removal of Over Head Power Lines In Lot N** **Closed** **10/08/2012** **10/19/2012** **10/09/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP David Fields **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

In order to construct the Beale Street Bridge per submittal: TZ1030-015313A38, it must be pre constructed in Lot N. In order to do this the overhead power lines located on the east side of Lot N must be taken down throughout the bridge deck fabrication phase and during the final installation of the deck on Beale Street.
The attached drawing illustrates the fabrication area in Lot N and the location of the overhead power lines through this area. BBII will also need to acquire a section of the W/O lot to complete the bridge deck

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Submittal TZ1030-015313A38 was returned "Not Reviewed" on 10/3/12. BBI's Beale St. bridge layout proposal is currently under review by the TJPA as RFI T-0264.7.

In response to the existing utility facilities inquiry: Contractor to follow the provisions set forth in the contract documents regarding existing utility facilities.

In response to inquiry relative to W/O lot south of

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

fabrication.
Please confirm that these items will be resolved before the Beale Street Bridge deck fabrication commences.

pacel pacel N:
Infringing on W/O's lot south of lot N in order to construct the Beale St. Bridge is a Trade Subcontractor is means and methods issue. As a result, all cost associated with this work would be borne by BBII. In order for W/O to respond relative to the logistics of this inquiry at a minimum a plan demonstrating the following would need to be provided:

-W/O's trailer complex will maintain ADA compliance. Drawing(s) should show relocated K-Rails and other pertinent information relative to W/O's Trailers and other facilities.
- Expected duration of the infringement into W/O's Lot.
- Demonstration that areas disturbed will be restored to original condition upon the completion of Beale St. bridge installation.

BALFO900-0020 **BSE - Rebracing Supports above the Lower Concourse Level** **Closed** **11/06/2012** **11/16/2012** **11/06/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Webcor Construction LP David Fields **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

In futher review of W/0 letter COM 00479, dated November 2, 2011, regarding rebracing of internal bracing above concourse level, BBII requests the following clarification.

The letter states "internal bracing cannot be rebraced to a pin pile above the concourse level." Are trestle piles considered pin piles in this statement? Also, please clarify why rebracing above the concourse level cannot be supported to pin piles and/or trestle piles.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII elected to utilize the trestle piles to function as reaction elements for its design-build internal bracing system. COM0479 was in response to concerns relative this means and methods decision and was authored to provide notification that trestle pile utilization would not be possible for re-bracing reactions at the lower concourse level given the coordination requirement for trestle removal prior to the final level of rebracing.

BBII may elect to utilize existing piles for rebracing reactions provided the re-shoring and removal sequence is developed and coordinated with Concrete

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Trade Subcontractor, Structural Steel Trade Subcontractor and other Trade Subcontractors.

BALFO900-0021 **BSE - Sump Pit Location and Dimension** **Closed** **12/05/2012** **12/15/2012** **12/05/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Joe Chapman **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

In Drawing S1-2022 the Sump Pit on the North Side of Zone 1 between GL 4 and GL 5, does not have all necessary dimensions to properly excavate. Please provide the dimensions drawn in blue on Drawing GT-2101, and the dimensions of the bottom footprint of the pit (See G-3004).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The drawings referenced in BBI RFI #336 have been superseded. Please refer to current drawings, issued via Field Order #00010R2 dated 9/26/2012 which included revised drawings dated 8/30/2012. Refer to drawings including but not limited to S1-2022 and S1-3006.

BALFO900-0022 **BBII RFI # 342: Minna Street Manhole Sewer As-built Video** **Closed** **01/21/2013** **01/31/2013** **01/22/2013** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please provide BBII a copy of the as-built CCTV (video recording) of Minna Street sewer from SSMH#203 to SSMH#501.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pleae download videos and reports from the following Box website: https://webcor.box.com/s/3gidqeq942xzx0hwiwfg.

BALFO900-0023 **BSE - Chain Link Fence Locations on Beale Street Temporary Bridge** **Closed** **02/19/2013** **03/01/2013** **02/19/2013** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Brandon Miller **To:** Webcor Construction LP Lynn Kowallis **Answered By:** Webcor Construction LP Lynn Kowallis

Co-Author:

REQUEST:

Ref: CR T-043A

Please refer to CRT -043A Scope of Work regarding installation of chain link fence on temporary bridges in lieu of contract specified plywood. CR T-043A references blind

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Per RFI T-293.2

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

spots for "199 Fremont Street and 301 Mission Street onto Beale Street." Please see the attached sketch of Beale Street Temporary Bridge with location for chain link fence to be installed per CR T-043A.

Please confirm locations for chain link fence on Beale Street Temporary Bridge.

BALFO900-0024 **BSE - Relocate Zone 3 Dewatering and Electrical Equipment** **Closed** **02/27/2013** **03/09/2013** **02/27/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Kirk Nielsen

Co-Author:

REQUEST:

BBII will be relocating equipment along the North perimeter wall in Zone 3 per W/0 and TCCO direction. Items to be relocated include but are not limited to dewatering header pipe, dewatering control boxes, site electrical, monitoring equipment, etc. Please see the attached photos and sketches and for approval to proceed with relocation of said equipment.

Please confirm the utility locations shown herein do not conflict with other trade subcontractors and can remain for the duration of the dewatering system.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The direction to evacuate the Muni Hump was provided by QBD #TG0300-0162.
2. WOJV recommends relocating the utilities consistent with BBII's RFI #352 SK(s) 1/2 & 2/2.
3. While WOJV will coordinate as necessary to avoid utility relocation(s) WOJV cannot confirm the utilities may remain the duration of the dewatering system, nor is WOJV obligated to:

a. Specification section 31 23 19.1.3.C instructed bidders to "Locate system components to allow continuous dewatering operations without interfering with installation of permanent Work and existing public right-of-way, sidewalks, and adjacent buildings, structures, improvements and construction operations performed under this Contract or other contracts."
b. Exhibit-A.Section IV.C.15 instructed bidders to "he design and the installation sequence shall be coordinated with Permanent Structure construction, Temporary Structures / Equipment by other Trade Subcontractors, Internal Bracings, Access Trestle, Temporary Bridges and other structures."
BBII was instructed as what to anticipate as it pertains to the permanent structure reference the BSE A-series drawings.

WOJV 2/26/13

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
BALFO900-0025	BSE - As-built Minna Street Manhole Rim Elevations	Closed	03/04/2013	03/14/2013	03/05/2013	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Brandon Miller **To:** Webcor Construction LP Lynn Kowallis **Answered By:** Webcor Construction LP Lynn Kowallis

Co-Author:

REQUEST:
Please provide BBII with as-built elevations of Minna Street sewer manholes: MH#201 , 202, 203, 204, 205, 206, 207.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
See attached As-Built Drawings for Minna Street sewer manholes: MH#201 , 202, 203, 204, 205, 206, 207.

BALFO900-0026	Project Milestones and Substantial Completion	Closed	08/08/2013	08/18/2013	08/08/2013	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Rodney Gordon **To:** Webcor/Obayashi Joint Ventu Joanne Filipas **Answered By:** Webcor/Obayashi Joint V Joanne Filipas

Co-Author:

REQUEST:
Based on conversation in today's progress meeting, please confirm that substantial completion is not a prerequisite of project milestones and is therefore not required to meet any milestone obligations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Refer to COM2209

BALFO900-0027	BSE - Waterproofing Damage at Area 2	Closed	11/12/2013	11/22/2013	11/18/2013	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Diarmuid Cregg **To:** Shimmick Construction Comp Ben Gordon **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:
During bracing removal at area 2, a section of waterproofing was damaged. This damage is consistent to the top of the concrete.

Please confirm the minimum waterproofing material lap needed by the WP subcontractor to repair this Section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
See attached Grace repair procedure for the burnt waterproofing as requested.

P-0001	Unknown Conduit Located in Geo Test DMM Area	Closed	09/15/2009	09/29/2009	09/15/2009	Potentially	☐

From: Webcor Construction LP Marina Rosso **To:** Transbay PMPC Jim Coughlin **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:
What is the source of the conduit located with-in the DMM Geo test Area and are they live? During the pre trenching operation for the DMM drilling on Tuesday 9-15-09, Raito discovered a bank of what appears to be conduits inside the archeological trench. (See Attached Pictures) We

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
subject conduits are abandoned lines, cut and proceed with work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

were told that all obstructions at the test locations were removed up to a depth of 15 feet. These conduits are at about 2 feet down. Can you verify that these conduits are live or abandoned? Is there any mention of them in the archeological report? We have not seen a copy of the report. Please provide direction if these conduit can be safely removed from test area.

(Origingally opened by Bret Dobel)

P-0002 **50% DD Drawings Walk Thru Minutes Questions** **Closed** **09/15/2009** **09/29/2009** **10/01/2009** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: Attached Meeting Minutes

Please provide the following:

1.) Meeting Minute Item 3.2.4.1 - Please provide the VE alternate addendum
2.) Meeting Minute Item 4.7.5.4 - Please provide the RVA criteria VE options
3.) Meeting Minute Item 4.7.5.1 - Please provide Webcor / Obayashi with information we are to review
4.) Meeting Minute Item 5.5 - Please provide the TT Revit 3D model to Webcor / Obayashi
5.) Meeting Minute Item 9.5 - Please provide the clarification for items 9.5, 9.5.2, 9.5.3, 9.5.4, and 9.5.5

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For pricing, assume the basket pipe columns from ground level to underside of bus deck are filled with lightweight concrete. At the Bus Deck Level, the exterior pipe columns should be assumed to be inherently fire proof without concrete fill, intumescent paint or spray fireproofing. All the rest of the steel sections, the WF or built up sections, are spray fireproofed and columns wrapped with a cladding.

P-0003 **TC1/ TC2: Elevators PE703 & PE704 Phase Discrepancy & Phase 1 & 2 Definition** **Closed** **09/17/2009** **10/01/2009** **09/29/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: Attached SKA-0488 to SKA-0494, SKA-sheets A-2207, A-2307, TTCSF - OA Phasing Narrative, TTC-MEP Phasing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Passenger elevators PE703 & PE704 are affected by Phase 1 and 2. See the attached revised B1 Level Phasing Drawing. These elevators are now shown as green i.e. constructed in Phase 2. The elevators are

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Passenger elevators PE703 & PE704 (sheets A-2207 & A2307) at gridlines 35.7/E.6 are indicated as Phase 1 (Red) scope at the Lower Concourse Level (SKA-0489) and as Phase 2 (Green) scope at Ground Level (SKA-0490) on the Phasing Sketches dated 9/8/09. Please confirm of what the planned operation of these elevators will be if they will not go to the ground level.

In addition, please provide the following pertaining to Phase 1 & 2 Definition:

1.) Above Grade, Paragraph 4 - Please provide the temporary landscaping information that is to be included in the 50% DD Budget Estimate.

2.) Above Grade, Paragraph 5 - Please provide the temporary mechanical and electrical service information that is to be included in the 50% DD Budget Estimate, or note which items on the MEP Phasing PDF provide this information.

3.) Below Grade, Paragraph 3 - All four (4) stairs shown on SKA-0488 are shown in orange, which indicates they are temporary, however the narrative indicates differently. Please indicate in plan, which stairs are temporary and which are permanent.

4.) B2 Train Platform Level, Paragraph - All four (4) stairs shown on SKA-0489 are shown in orange, which indicates they are temporary, however the narrative indicates differently. Please indicate in plan, which stairs are temporary and which are permanent.

5.) B1 Train Platform, Paragraph 2 - Please confirm which option of "temporary rated floor assemblies" or "rated GWB on metal stud enclosures" is to be included in the 50% DD Estimate.

6.) B1 Train Platform, Paragraph 3 - Please provide the dimensions and rating for the "temporary closure wall" to be provided at the entry.

7.) B1 Train Platform, Paragraph 6 - Please provide the location of the "temporary stud and drywall wall" at the glass skylight. Is this to be constructed at the Concourse located under the east end temporary mechanical compound and therefore serve no useful function in Phase 1. However for Phase 1 the pits should be constructed and provided with a guardrail at the B1 level as well as the ground floor opening framed and provided with a temporary, waterproofed, concrete infill over the opening. The shaft, cabs, roping, associated ME / controls and finishes would be provided in Phase 2.

Response to additional questions 1 thru 12:

see attachment (file too large)

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Level?

8.) SKA-0488 - Please provide the general details of what the "temporary" train box East and West end walls will consist of, so this can be included in the 50% DD Budget Estimate.

9.) SKA-0488 - Per Thornton Tomasetti (as indicated in DL's Alternate & Phasing document, dated 9/3/09), the "Trainbox of Phase 1 extends to 1/3 bay past grid-line 36 as basis for estimate", this is not consistent with the SKA-0488. Please confirm which is correct.

10.) SKA-0489 / Detail 2 - Please provide the general details for the "temporary" train box East end wall will consist of, so this can be included in the 50% DD Budget Estimate.

11.) SKA-0490 / Detail 1 - Please provide the general details for the "temporary construction" will consist of at the circular vent structure.

12.) SKA-0490 / Detail 2 - Please provide the general wall and roof type details for the "temporary mechanical compound" will consist of at the East end. Is it anticipated that this structure will be completely removed and replaced by the permanent Phase 2 construction?

P-0004 **Phase 1 & 2 Definition Sketch Questions** **Closed** **09/18/2009** **10/02/2009** **10/07/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: SKA-0488 thru SKA-0490

1.) SKA-0488 - Please provide the general details of what the "temporary" train box East and West end walls will consist of, so this can be included in the 50% DD Budget Estimate.

2.) SKA-0488 - Per Thornton Tomasetti (as indicated in

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response to DR 00003.
1) See attached sketch SSK-012
2) Follow SKA-0488
3) Same as indicated in SSK-012
4) Disregard "Temporary Construction" as none is needed
5) "Temporary Mechanical Compound" will consist of a chain link enclosure fencing with privacy screening.

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DL's Alternate & Phasing document, dated 9/3/09), the "Trainbox of Phase 1 extends to 1/3 bay past grid-line 36 as basis for estimate", this is not consistent with the SKA-0488. Please confirm which is correct.

3.) SKA-0489 / Detail 2 - Please provide the general details for the "temporary" train box East end wall will consist of, so this can be included in the 50% DD Budget Estimate.

4.) SKA-0490 / Detail 1 - Please provide the general details for the "temporary construction" will consist of at the circular vent structure.

5.) SKA-0490 / Detail 2 - Please provide the general wall and roof type details for the "temporary mechanical compound" will consist of at the East end. Is it anticipated that this structure will be completely removed and replaced by the permanent Phase 2 construction?

P-0005 **TC1: Window Washing Equipment 50% DD Budgeting Scope** **Closed** **09/18/2009** **10/02/2009** **10/15/2009** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: Specifications Vol 1 - Sections 11 24 23

Specifications sections 11 24 23 paragraphs:
2.1.2.1, 2.1.2.6 and 2.1.2.9 - references monorail track systems, compatible manual and power driven trolly assemblies

2.1.4.1 - references to powered platforms

2.1.7.3 - references gantry work

None of the items listed above can be found on the window washing drawings issued in the current set. Please advise where the window washing monorails, trolley assemblies, powered platforms and gantries be allowed for in the 50% DD Budget.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The response to this question is the specification sections should be disregarded and the drawings should be costed at this point.
We will be modifying the methods based on meetings yesterday, but we will not be utilizing those things noted in the Specs under any scenarios.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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P-0006	**TC1: Finish Schedule Missing Information**	**Closed**	**09/19/2009**	**10/02/2009**	**10/13/2009**	**Potentially**	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: 1/ A-0005, A-9250, attached mark-up detail sheets

1.) Schematic design architectural drawing sheet A-9250 (Train Platform Level Finishes Layout Plan) identifies room types "S-1" - Public Stair and "S-2" - Exit Stair. These room types are not identified on 50% DD detail 1/A-0005 (Room Finish Schedule).
Please advise what the finish information for floor, base, walls, ceilings, doors and frames for these spaces.

2.) Detail 1/ A-0005 does not identify/ list the "Code" and abbreviations for the first column of descriptions (see attached sheet). Abbreviation descriptions for "concrete", "durable sealer", "epoxy terrazzo flooring", exposed", "glassfiber reinforced gypsum, painted", "glass" and "channel glass" are missing.
Please provide the missing abbreviations for these material descriptions.

In addition, please advise if the missing Room Type Codes on the Finish Schedule (1/ A-0005) are intended to similar to codes identified on the Layout Sheet Plan "Room Type Legend" (sheet A-9250).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Public Stairs -

Typical open stairways, to and from the public concourses.

Steel stair construction, with brushed stainless steel finish i.e. sheet stainless steel cladding and trim to exposed stringers, edges and soffits.

Epoxy terrazzo treads and risers c/w non slip nosings on steel stair substrate.

Stainless steel rails and posts.

Exit Stairs -

Enclosed exit stairways.

Concrete filled steel pan on steel stair structure.

Steel handrails, posts, and guard pickets.

All metal painted, including stair soffits

Landings and tread concrete sealed.

Stair doors and frames stainless steel clad on the public (concourse) side and painted on the stair side.

Exit stair walls painted.

The missing abbreviations are as follows:

CONC
CONCRETE

SPC

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DURABLE SEALER

EF
EPOXY TERRRAZZO FLOORING

EXP
EXPOSED

GFRG
GLASSFIBER REINFORCED GYPSUM, PAINTED

GL
GLASS

GLC
CHANNEL GLASS

Yes, the Room Type Codes on the Finish Schedule (1/ A-0005) are intended to similar to codes identified on the Layout Sheet Plan "Room Type Legend" (sheet A-9250).

P-0007 **TC1: Exterior Skin Mockups** **Closed** **09/21/2009** **09/28/2009** **11/04/2009** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Davis Langdon Mike Parkyn

Co-Author:

REQUEST:

Reference: 50% DD Specifications Sections [08 41 23], [08 44 26] and [08 63 00]

50% DD specifications sections [08 41 23 - 17], [08 44 26 - 26] and [08 63 00 - 16] refer to section 084426A for the extent of glass enclosure mockups. Section 084426A cannot be found in the specifications.
Please advise what should be anticipated as mockup requirements for the 50% DD budget estimate. For

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In the absence of further definition, at 50% DD W/O and DL both carry $500K allowance for glass enclosure mock-ups. This does not include blast testing, as this would be part of RVA add.

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example, please advise to which skin systems will have performance, blast and/ or visual mockup requirements and what approximate test size areas should be anticipated.

P-0008 **TC1: Phasing Inconsistancy: 50% Budget - Stair #202 Extension to Platform Level** **Closed** **09/23/2009** **09/30/2009** **09/29/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture **To:** Transbay PMPC Mark O'Dell **Answered By:** Pelli Clarke Pelli Architect Randy Volenec

Co-Author:

REQUEST:

Reference: SKA-0488, A-2102, attached mark-up sheets

Phasing sketch SKA-0488 indicates in RED Stair 202 extending to the Train Platform Level (gridlines F.5/ 1.5). The 50% DD drawing sheets A-2102 & A-2202 indicates the stair terminating at the Lower Concourse Level. Please advise if the Stair 202 extension to the Train Platform Level is a permanent revision or temporary, requiring stair removal and floor opening structural in-fill in Phase 2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Stair 202 is a permanent stair that will rise from the B2 level up to the Ground Floor level. It will serve the (currently) Unassigned Space of the North West Triangle at the B2 level and the Muni Control Center at the B1 level. Stair 202's final configuration and location has not been settle yet, however it will definitely be required permanently and will be built as part of Phase 1.

Randy Volenec - PCPA
9/29/2009

P-0009 **Revised Trainbox Layout for Construction Documents** **Closed** **11/10/2009** **11/10/2009** **11/23/2009** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Alfred Lau **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Please confirm SKA 637 R1, SKA 638 R1, and SKA 646 are the most current trainbox layouts, which shall be used for preconstruction scheduling and planning, and construction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We confirm that the documents attached to Design Review No. 00012 are the most current versions, at this time, of the Architectural sketch studies for the 2'4" move and 2 x 10" reduction of the trainbox.

These sketches were prepared primarily as study information for the design team and to assist decision making on the location and size of the building relative to adjacent properties. Accordingly they form part of

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the on-going Design Development process.

The Design Team cannot assume any responsibility whatsoever for the interpretation and use by others, of sketches provided for Design Development information. Furthermore, anyone who chooses to use this information will be responsible for verifying the suitability of this data for their own application.

To date, none of our sketches have been issued for Construction and under no circumstances will sketches issued prior to the Construction Phase be used for Construction.

Regards

Paul

P-0010 **TC1: Structural Steel Design Allowance Calculation Clarification** **Closed** **09/21/2009** **09/28/2009** **09/30/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: S-2302 thru S-2507

Structural sheets S-2302 thru S-2507 identifies a 3 lb/sf allowance for design contingencies associated with structural steel and miscellaneous steel not shown and sheets S-2601 thru S-2607 identifies a 4 lb/sf allowance for the same.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The allowances noted on the plans (additional steel for design contingencies and misc steel not shown) should be applied to the steel framed areas.

Mark O'Dell - TJPA
9/30/2009

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Please clarify how these lb/sf allowances should be calculated. Should these allowances be applied to the steel framed areas of the overall GSF?

P-0011 **TC1: 50% DD Phasing Sketch Inconsistency - Temporary Stair on Lower Concours Closed** **09/24/2009** **10/01/2009** **09/29/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture **To:** Transbay PMPC Mark O'Dell **Answered By:** Pelli Clarke Pelli Architect Randy Volenec

Co-Author:

REQUEST:

Reference: Attached SKA-0488, SKA-0489, SKA-0490

Phasing sketch SKA-0489 (Lower concourse level) indicates a temporary Phase 1 stair (enclosed in Red and Orange) by gridlines 36-37/ F-G. Phasing sketches SKA-0488 (Train Platform level) and SKA-0490 (Ground level) do not indicate of a stair or enclosure at the referenced grid location.
Please advise if the stair identified is to go up to the Ground level or down to the Train Platform level.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Stair indicated at gridlines 36-37 / F-G is actually two escalators and a stair. These are E705, E706 and Stair 701. In Phase 2 these provide a vertical connection between the Train Concourse Level and the Ground Level. They are indicated on SKA-0490 (Ground) and SKA-0489 (B1 Train Concourse) in green and are not installed in Phase 1. They do not go down to the Train Platform level.

In Phase 1, escalator pits are to be provided at the B1 Train Concourse Level and installed with temporary concrete on metal deck on steel framing infill. At the Ground Floor Level, i.e. Train Box lid, in the area to the west of the foundation wall at gridline 36-37, an opening is to be framed to suit the future stair and escalators. This opening will be provided with a temporary concrete on metal deck on steel framing infill and shall be covered with waterproofing similar to the rest of the slab in this area forming the floor of Temporary Mechanical Compound. This will be removed and replaced as part of the Phase 2 Intercity Bus Facility.

Paul McPhail - Adamson Associates
9-29-2009

Additional comments by Randy Volenec

One caveat is the second paragraph response should be tempered with openings at the Lower Concourse Level as temporary concrete on metal deck and framing, with an alternate cost to construct the openings and put up temporary guard rails around the

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openings.

Randy Volenec - PCPA
9-29-2009

P-0012 **TTC - Raito Geo-test Core Locations** **Closed** **10/01/2009** **10/08/2009** **10/14/2009** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Ryan Cerri **To:** Arup Demetrious Koutsoftas **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:
Reference: Attached Raito RFI, attached drawing

Please identify the locations of Raito's (3) requested core locations for the Transbay Transit Test Program project. Please reference the attached drawing of Raito's drilling. Raito has discussed the recommended core locations with Deme on 10-1-2009.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
panels where coring was agreed to are: Panels B-11/B-12,C-4/C-5,and B-7/B-8

P-0013 **Pre-Qualification Questions** **Closed** **01/05/2010** **01/19/2010** **03/24/2010** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:
Please see the attached questions regarding the pre-qualification process. Please verify if the answers are correct. If they are not, please provide the correct answer. Thanks.

SUGGESTION:
(Can't find answer in Constructware)

ANSWER: **Accept Suggestion:** ☐

P-0014 **Caltrans Spec for Temp Road Design Criteria** **Closed** **01/13/2010** **01/27/2010** **01/14/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:
Reference: OAC Meeting Minutes 12/10/09; Below Grade Internal Bracing Design Workshop Meeting Minutes 12/15/09, Caltrans Spec 12/18/09

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Criteria for the design of temprary roadways is contained in the document however the specific criteria will be indicated in the 100% Shoring

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Please confirm that the Caltrans spec you attached to the OAC Meeting Minutes 12/10/09 are to be used as design criteria for the temporary roadways on First St., Fremont St., and Beale St.

Construction Documents Specifications. Preliminary indications are that HS20-44 Loading will be used.

P-0015 **East Shoring Wall at Gridline 37** **Closed** **01/14/2010** **01/28/2010** **03/03/2010** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: GT-1302, Draft 90% Shoring CD's,37 Line; GT-2114, Draft 90% Shoring CD's, Wall Segment 37-1. Please locate from gridline the East shoring wall between Phase 1 and Phase 2 trainbox.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As we discussed in the Below Grade Structure Workshop on Tuesday Janurary 12th, 2010, the location of the east shoring wall is still in flux. Current indications are that the wall will be located closet to column line 35 than column line 37. Since the location of the wall will coincide with the location of the future seismic joint, PCPA indicated yesterday (Janurary 13th) in a conference call @ 3:00PM that the final design team recommendation is awaiting feedback from Thornton Tomasetti. We expect this decision will be made this week. The final dimensioned location will be documented in the 100% Shoring Construction Documents however it is likely that the final dimensioned location will be available sooner.
The exact dimension is indicated on sheet GT-2013 of the 100% Buttress/Shoring/Excavation Submittal dated 2/26/10. The centerline of the shoring wall is 9'-7 1/2" east of Column Line 35.

P-0016 **PG&E Phase I Duct Banks Weights at Temp Road Decks** **Closed** **01/14/2010** **01/28/2010** **01/21/2010** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Guy Hollins **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:

Ref: 50% DD, U-2020, U-2021, U-2022, U-2023
Please provide weight per LF of PG&E I duct banks at 1st. St. and Fremont St.. This information is required for design of the temporary road decks.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response Notes: Steel conduit = 17.7 lb/ft
Cable = 8.2 lb/ft
Total = 25.9 lb/ft

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
P-0017	**TC1 Division 00 Specs Receive Date**	**Closed**	**01/15/2010**	**01/29/2010**	**01/25/2010**	**Potentially**	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: email "Re: Div 01 spec sections for consultant review" dated 1/14/10; Div 00 and 01 index; Division 01 Specs W/O received the Division 00 and 01 index from TJPA on 1/13/10. W/O received the Division 01 specifications on 1/13/10, but did not include Division 00. Please confirm when W/O will receive Division 00.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response Notes:
PMPC sent Division 00 to W/O on January 18, 2010.

P-0018	**TC1 Transmittal for Buttress Package received 1-14-2010**	**Closed**	**01/15/2010**	**01/29/2010**	**01/21/2010**	**Potentially**	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: "Buttress Package - Construction Documents Issued for Review" transmittal dated 1/14/10

The transmittal sent with the "Buttress Package - Construction Documents Issued for Review" is not complete. Please include the following information in the transmittal and reissue so we can verify all documents have been received:
- Listing of all drawings transmitted
- Listing of all specifications transmitted
- Title and date of CD, including a list of all documents included on the CD
- Review Comments Responses (which were found on the CD, but no hard copy)

Please apply this protocol to all future transmittals so W/O knows exactly what is included in the packages.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response Notes: Please see attached Transmittal.

P-0019	**TC1 Construction Documents Issuance Schedule**	**Closed**	**01/19/2010**	**02/02/2010**	**03/03/2010**	**Potentially**	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

A part of our preconstruction scope of services, we are to provide cost estimates at 100%DD, 50%CD, 85%CD, and 100%CD, however there are currently no publish dates for 50%CD and 85%CD. Please provide publish dates for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The current date for issuing the 50% Construction Document Submittal is August 30, 2010.
The current date for issuing the 85% Construction Document Submittal is December 20, 2010.

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50%CD and 85%CD for incorporation into the project schedule.

These dates will most likely change in the future to support revisions to the project and or schedule.

P-0020 **301 Mission Wall - Survey Info, Dim. From A-Line** **Closed** **03/04/2010** **03/18/2010** **04/14/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: email "301 Mission Wall - Survey Info, dated 3/3/10", C-2003 - A Line, A-2306 - A line.
Please provide the dimension from the "x" marked on the sidewalk (adjacent to the 301 Mission wall) to gridline A in the 100% Design Development drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The dimension is 6'-4". It's shown on the attached sketch from Sandor.

P-0021 **Site Description After Demo** **Closed** **03/10/2010** **03/24/2010** **03/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

After demolition of the site and upon turnover to Webcor / Obayashi, please provide a description of what the site will look like and drawings containing the following information:

1) Finish grade elevations
2) Locations of fences and gates
3) Properties available for staging and storage
4) Laydown of crushed concrete (Volume and location of crushed concrete available for our use)
5) Condition of existing basements and structures

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This information is to be provided in the bid documents.

Constructware DRQ #00021

P-0022 **Missing 100%DD DWG Files** **Closed** **03/10/2010** **03/24/2010** **03/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Listed below are drawings in which the DWG files are

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The files were sent to Webcor / Obayashi on March

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

missing from the issuance of the 100%DD, please provide:

1) S-2103
2) S-5301
3) SE-4000
4) SE-4001
5) SE-5010
6) SE-5020
7) SE-5030
8) SE-5040
9) SE-5050

10, 2010.

Constructware DRQ #000022

P-0023 **UR - Existing Water Line At Fremont Street** **Closed** **03/11/2010** **03/25/2010** **04/05/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: AECOM Early Release Package dated 1-15-10; U-1122, Note 13; U-2023

Sheet U-1122, Note 13 calls for the water line in Fremont Street to be demolished, but not in the early package. Sheet U-2023 of the early package does call for the relocation of a small portion of that waterline between stations 4+00 and 4+50 to accommodate the shoring wall.

After review of the demolition drawings as provided by TJPA to Webcor/Obayashi for reference only, and a field review taking into account the extent of the footings we see a conflict with the (E) water line based on the location of the water line provided thru U.S.A. The footings are extensive and demolition will require shoring that will be very close to the existing water line if not on top of the line.

Please review and provide a solution. Webcor/Obayashi JV believes that a temporary relocation of that water line from station 2+50 and 4+50 is a potential solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Sheet U-1123 Note ER10 calls for the demolition of the existing water line between the limits of early release as shown (between STA ~3+80 and ~4+60) due to the existing water line affected by the hammer head portion of the temporary shoring wall.

Sheets U-1122 and U-1123 show the temporary shoring wall for Transbay Terminal footing demolition labeled as ¿TEMPORARY SHORING WALL BY OTHERS¿. The wall is based on information included in the Buttress/Shoring/Excavation package.

Based on the temporary shoring wall as shown in the Buttress/Shoring/Excavation package, the location of the existing water line as shown in the Program Topographic and Underground Utility Survey, and as shown on U-1122, appears not in conflict with the existing water line south of STA ~3+80.

AECOM believes that the water line may be improperly marked by CDD in response to USA ticket recently activated. Blue water line markings in the field show the water in the same alignment as the PG&E HP Gas (steel gas pipe). Based on the

Webcor/Obayashi Joint Venture

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Transbay Program Topographic and Underground Utility Survey the existing water line should be ~3.2¿ west of the existing PG&E HP Gas line. Trenching work on Fremont St. at Natoma St. performed by AECOM found the water line to be 3.25¿ west of the PG&E HP Gas line. Additionally, visual observations made by AECOM during PG&E HP Gas work in Fremont St., it appeared that the HP Gas line was in the location as shown on the plans and there was no indication of the water line in the bell hole excavated by PG&E.

AECOM recommends the following:

PMPC/TJPA ¿ provide CAD files that show the location of the temp shoring wall for Transbay Terminal footing demolition. Confirm what is shown in the Buttress/Shoring/Excavation package is accurate.
PMPC/AECOM ¿ Notify SFPUC CDD that they suspect their water line has been improperly marked and request CDD remark the existing water line.
Analyze the above data to determine if the water line is impacted beyond the area already shown for demolition in the Early Release.
Zagol, AECOM 4/5/10

P-0024 **DTX 650' HSR Tracks And Platform Extension Study Drawings** **Closed** **03/19/2010** **04/02/2010** **04/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Webcor / Obayashi received drawings regarding the "Updated Figures for DTX 650' HSR Tracks and Platform Extension Study", please provide a transmittal and direction on how to proceed with the following attached files:

1) Sheet-DTX Modifications for HSR FIG1- 03-09-10
2) Sheet-DTX Modifications for HSR FIG2-BLOWUP 03-09-10
3) Sheet-DTX Modifications for HSR FIG3-201 Mission

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see attached transmittal.

Transmittal #140-00069 Remarks (04/15/10):
The accompanying information is for your review and reference. No action is required at this time.

Constructware DRQ #00024

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

03-09-10

P-0025 **Tieback Anchors Under Natoma And Minna Drawings** **Closed** **03/19/2010** **04/02/2010** **04/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Webcor / Obayashi received drawings regarding the "Tieback Anchors Under Natoma and Minna", please provide a transmittal and direction on how to proceed with the following attached files:

1) 400 Howard Shoring Tiebacks, (Sheet #SH1-1., SH1-2., SH1-3., SH1-4)
2) 500_HOWARD_SHORING-TIEBACKS
3) X-2082-1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see attached transmittal

Transmittal #140-00070 Remarks (04/15/10):
The accompanying information is for your review and reference. No action is required at this time.

Constructware DRQ #00025

P-0026 **Shoring Wall And Buttress Comment Log Clarification Request** **Closed** **03/19/2010** **04/02/2010** **04/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Below is a list of questions that provide an overview of information Webcor / Obayashi needs clarified for the Comment Logs provided with the 100% CD Shoring. These are not the only questions we have or will have.

1) The "Design Team Response" comments do not appear to be final answers. For example, the Shoring comments #2 and #5 say items "will" be submitted / provided. What date will they be provided?

2) What date can Webcor / Obayashi expect the final response / answer for items that are unresolved (i.e. #5 on the Shoring Comment Log- "TJPA to respond", and #329 on the Buttress Comment Log - "PMPC to respond.")?

3) What is Webcor / Obayashi expected to do with response comments like Shoring comment #5.10 -

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

These comments will be addressed along with the remainder of Webcor / Obayashi Comments dated April 6th 2010 regarding the review of the 100% CD: Buttress / Shoring / Excavation - Issued for Structural Design Review.

Constructware DRQ #00026

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

"Alternate solutions to the buttress scheme should be considered"; and #5.12 - "Needs further discussion"?

P-0027 **100%DD Specification Section 07 18 23 & 09 27 13 Discrepancies** **Closed** **03/23/2010** **04/06/2010** **03/31/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

In Volumes 1 & 2 of the 100% DD specifications, sections 07 18 23 and 09 27 13 have the following discrepancies:

1) Spec. section 07 18 23 - Vehicular Traffic Coating (02/16/10) is missing from Volume 1 of the 100%DD specifications, but is marked as issued in the Table of Contents. Please confirm spec. section 07 18 23 no longer exists, it's corresponding information has been inputted / consolidated with spec. section 07 18 00 - Traffic Coatings (02.16.10), and update contract documents accordingly.

2) In Volume 2 of the 100%DD specifications, section 09 27 13 - Glass-Fiber Reinforced Plaster-GFRP-Fabrications (02.16.10) is labeled as 09 27 16 in the Table of Contents. Please confirm whether spec. section #09 27 13 or 09 26 16 is correct for the Glass-Fiber Reinforced Plaster-GFRP-Fabrications (02/16/10) specification and update contract documents accordingly.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed - Vehicular Traffic Coatings are specified in 07 18 00. Spec Section 07 18 23 no longer exists.

2. Section 09 27 13 is correct. There is a typographical error in the Table of Contents.

Constructware DRQ #00027

P-0028 **Missing 100% DD Spec. Section 00 30 00 - Desktop Cladding And Secondary Struc** **Closed** **03/23/2010** **04/06/2010** **04/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

In Volume 1 of the 100%DD specifications, section 00 30 00 - Desktop Cladding And Secondary Structure Wind Load Review (12/14/09) is marked as issued in the Table of Contents, but is not included in the package. Please provide specification section 00 30 0 - Desktop Cladding and Secondary Structure Wind Load Review (12/14/09) or

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Desktop Cladding and Secondary Wind Load Review Report is listed by mistake. The report is preliminary and not ready for issuance. It was not intended to be issued with the B / S / E Package.

Constructware DRQ #00028

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

confirm it has not been issued and update contract documents accordingly.

P-0029 **Length Of Concrete Mat Slab Pour** **Closed** **04/01/2010** **04/15/2010** **04/05/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Transbay PMPC Mark O'Dell **Answered By:** Thornton Tomasetti Albert Chen

Co-Author:

REQUEST:

As discussed in previous meetings, please confirm it is acceptable to pour the concrete mat slab in the full width of the project and in up to 400' in length.

(Note: Webcor / Obayashi needs this response for 100%DD estimating purposes.)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 100%DD specification, paragraph 3.2.2A limit the maximum length of the concrete pour for mat slab and train box wall to 60ft. This requirement is to minimize heat gain due to cement hydration during the pour and reduce shrinkage induced cracking and plastic settlement. This practice is very common in the construction of large water containment structures that require good quality concrete for water tightness.

Please follow the DD Spec.

Answered by Albert Chen
Thornton Thomasetti 04/05/10

Constructware DRQ #00029

P-0030 **TC1 100% DD Train Platform Mechanical Room Door Sizes** **Closed** **05/12/2010** **05/19/2010** **05/20/2010** **Potentially** ☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: A-3001, grids 3-6 and B-D (dated 2/16/10)
Per our scheduling exercises, we observed these conditions in the 100% DD drawings:
The mechanical rooms in the Train Platform BOH call for CMU walls. We are scheduling to install the mechanical equipment prior to CMU because most equipment in these rooms will not fit through a 3' wide door. Please confirm the door sizes for the following rooms are 3' wide: B2222, B2223, B2230, and B2228.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
P-0031	TC1 100% DD PE301 & PE603 Phase 1/Phase 2 Clarification	Closed	05/12/2010	05/26/2010	05/20/2010	Potentially	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: Adamson Associates Transbay Transit Center Phasing, February 26, 2010; A-2106 and A-2103 (dated 2/16/10)
Per the referenced phasing document, PE301 and PE603 are identified on the Train Platform level as the core being built in Phase 1 (color red), and the elevator being built in Phase 2 (color green). We have scheduled the CMU installation for Phase 1 and the elevator installation for Phase 2 at both elevator locations. Please confirm this is in compliance with Phase 1 and Phase 2 construction. This is important for the 100% DD schedule development.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response: Answer provided; no action needed

Response Notes:
100% Design Development Architectural Drawings A-2103 and A-2106 do not depict phasing. For phasing refer to SKA-0777 and SKA-0778, dated 02/26/2010. For elevators PE301 and PE603, the Phasing Diagram Legend Note # 5 states: Elevator Pit in Mat Slab. It is the intent to provide elevator/escalator pits in the Mat Slab only for the CalTrain platform, to accommodate low platform height.

P-0032	TC1 100% DD Stair 202 Landings Clarification	Closed	05/12/2010	05/26/2010	05/20/2010	Potentially	☐

From: Webcor Construction LP Ryan Cerri **To:** Transbay PMPC Mark O'Dell **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Ref: A-2102, A-2202, A-2203 and A-2204; 1/A-7103 (dated 2/16/10)
Per our scheduling exercises, we observed these conditions in the 100% DD drawings:
The referenced plan view drawings show stair 202 from the Train Platform Level to the 2nd Level. 1/A-7103 shows stair 202 from the Train Platform Level to the ground level. We have scheduled stair 202 to service up to Level 2. Please confirm this is correct. This is important for the 100% DD schedule development.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response: Answer provided; no action needed

Response Notes:
Stair 202 is to service from Platform Level to the 2nd Level inclusive. The section on drawing A-7103 is drawn incorrectly.

P-0033	TC1 Vertical Transportation at Grids 10-11 Phase Designation	Closed	06/15/2010	06/30/2010	06/28/2010	Potentially	☐

From: Webcor Construction LP Ryan Cerri **To:** Adamson Associates, Inc. Sandor Rott **Answered By:** Adamson Associates, Inc Sandor Rott

Co-Author:

REQUEST:

Ref: Adamson Associates Phasing Plan, dated 2/26/10; SKA-0778 and SKA-0779; 100% Design Development drawings, dated 2/16/10; A-2203 and A-2303

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Acceptable

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SKA-0779 identifies the following vertical transportation areas (grids 10-11) as Phase 1 or Phase 2:
- Stairs 309 & 311 (serving lower concourse and ground levels) in Phase 1 (note: SKA-0778 shows these stairs constructed in Phase 2)
- Escalators 303 & 304 (serving lower concourse and ground levels) in Phase 2
- Escalators 305 & 306 (serving ground and bus deck levels) in Phase 2

It looks as if the phases for stairs 309 & 311 and escalators 305 & 306 could be reversed seeing the floors that they serve. Please confirm the phases for each area above, so we can provide an accurate 100% DD schedule.

P-0034 **TC1 Control Points per U-0010** **Closed** **08/12/2010** **08/19/2010** **11/17/2010** **Potentially** ☐

From: Webcor Construction LP Michael Constable **To:** Transbay PMPC Mark O'Dell **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref: U-0010 (dated 7/9/10)
The referenced drawing shows four control point locations:
1. Point #101 NE Corner of Second St. & Mission St.
2. Point #105 NE Corner of Beale St. & Mission St.
3. Point #106 SW Corner of Beale St. & Howard St.
4. Project Benchmark at SE Corner of Second St. & Howard St.

Webcor/Obayashi field engineers have located Point #101 and the Project Benchmark on Second St. However, control Points #105 & #106 on Beale St. are missing. These control points are required for Webcor/Obayashi field surveying. Please physically place points #105 & #106 per U-0010 (dated 7/9/10).

In addition, please physically place a minimum of two clear Line-of-Sight Survey Control Points on Second, First and Fremont Streets at the Natoma and Minna intersections. This allows Webcor/Obayashi to survey PG&E utility work and additional existing utility As-Built information in PG&E excavations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response was never provided by PMPC but work was completed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
P-0035	**P - Steel Basket Column Strut Connection at Glazing**	**Closed**	**07/12/2012**	**07/12/2012**	**07/18/2012**	**Potentially**	☐

From: Webcor Construction LP Jeff Heath **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Ref: 14/SI-6092

1. The strut connecting the basket columns to the glazing sub framing is currently shown as part of the TG08.1 package. Because of structural steel tolerances of the basket columns, the length of the strut will vary depending on the final location of the basket column. The discussions have been going on for months about speeding up the fabrication and installation of the glazing system, therefore we would like to incorporate the strut as part of the TG07.1 Structural Steel package. Please confirm it is acceptable to incorporate the strut into the Structural Steel package.

2. Provide details for an adjustable end strut at the glazing sub frame connection.

3. Provide a typical length that takes into account the tolerance of the basket columns.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This request is neither an RFI nor QBD. If W/O would like to pursue this issue, please formalize a letter addressed to PMPC and route through the proper venue.

RFI T-0491	**BSE - Extract Timber Piles at Footing Along Gridline 33.5**	**Closed**	**04/09/2013**	**04/19/2013**	**04/17/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Danny Walsh

REQUEST:

Reference Specification: 02 41 19
Reference Drawings: GT-2103 & D-2213

Based on conversation at the 4/3/13 weekly coordination meeting, BBII understands that the TJPA may consider lifting the ban on pile extraction previously issued in COM1347 (TCC letter dated 10-10-12) which directed all remaining piles to be removed by excavation and cutting.

BBII requests an exemption to the direction issued in COM 1347 that will permit the timber piles beneath the existing footing on gridline 33.5 to be extracted per the contract documents. The piles beneath this footing should be considered for exemption since they fall outside of the Zone 4 J-line "critical areas", the thin strip orientation has

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is not acceptable.

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a minimal area of influence on the J-Line wall, and the geotechnical drawings already allow non-ground deformation control pile removal along most of the footing (see sheet GT-2103 & D-2213 attached).

Please advise if this request is acceptable?

RFI T-1030 **SSS - Second Level Canopy Framing Details** **Closed** **12/12/2013** **12/22/2013** **12/31/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On level 2 at the canopy areas and detail 1/S1-5032 refer to sketches CD RFI 171 SK1, SK2 & SK3 for it ems 1 to 4:

1) Confirm the erection aid angles bolted to the W section s are acceptable.
2) Confirm the required dimension of the angle to extend p ast the HSS.
3) Confirm the deck support angle indicated is acceptable and provide the required weld information.
4) Confirm the dimension for the bottom of deck to top of s lab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.

2) Pop-Out perimeter angle is 4x4x1/4 on three sides. Plan Section A-A does not show perimeter angle per RFI T-0803.1 and 4/A1-8188. Please see page 5 of RFI PDF markup with location and dimension.

3) Acceptable. Provide a 3" long weld of ¼" fillet weld every 12" on both sides of the angle, similar to that shown in 10/S1-5002.

4) Dimension is 1 1/4" - see page 5 of RFI PDF markup with dimension.

RFI T-1096 **BGP - Area 4 Exterior Wall Verts in Contact With Waterproofing** **Closed** **01/09/2014** **01/19/2014** **01/14/2014** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

In Area 4, between soldier piles #41 and #42, there are approximately 13ea wall vertical bars that are in contact with the waterproofing due to CDSM Encroachment. Soldier Piles #41 and #42 were surveyed and shown to not encroach more than 1/2". However, at the elevation of wall lift 1, it appears that the CDSM encroaches vertically into the foundation wall. Due to the wall verticals having little or

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option 2 is preferred with the following modifications and additions:
1.Depth of haunch concrete removal shall be 1'-3" minimum at the encroaching bars.
2.Bars shall be bent such that the top of coupler is displaced 1" from the waterproofing.
3.Displacement shall be made in a controlled fashion.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

no clearance to the waterproofing, the first list wall vertical bars cannot be coupled onto the dowels protruding from the top of the haunch. Per discussion with TT field representative, Gerdau proposes the following:

Option 1: Remove the waterproofing, chip the CDSM wall between soldier piles 41 and 42 to allow for clearance between the vertical bars and waterproofing. Vertical bars adjacent to soldier piles
41 and 42, up to 6 total, will be abandoned.

Option 2: The dowels above the haunch will be slightly bent away from the CDSM wall to allow for threading of the first lift wall vertical bars. Prior to bending the bar, the haunch concrete will
have to chipped out a minimum of 1.5 ft wide by 1ft deep to allow for hickey bar access. Once the first lift vertical bar is threaded onto the dowel, then the vertical bar will be transitioned back
into vertical alignment with a slight bend over approximately 6ft. Note that this transition will require the wall horizontals to be bent and cross-ties will need to be shortened to follow the
profile of the wall verticals.

Please confirm if proposed options are acceptable.

4.Bars shall only be bent in one direction.
5.Embedded horizontal wall reinforcing that might prevent the field bend from occurring at the bottom of the 1'-3" excavation shall be locally removed. Other reinforcing shall be protected in place.
6.As proof of concept, work shall begin with the bars immediately in front of steel soldier piles. If displacement cannot be controlled for all bars at the soldier pile locations, Option 2 shall cease and Option 1 shall commence. No bars will be accepted that have displaced more than 2" without nondestructive testing; 1", however, is the target. Option 1 may continue to bars between steel soldier piles only after acceptance of work by the structural engineer.
7.The integrity of the waterproofing behind the excavation shall be maintained. Acceptance of the waterproofing by the manufacturer's representative and waterproofing contractor at the completion of field bending is required prior to patching the haunch excavation.
Option 1 is acceptable only if Option 2 does not produce acceptable results. Modification and additions to Option 1 are as follows:
1.The target cover for wall reinforcing bars is 2" minimum.
2.The minimum acceptable concrete cover over a bar or coupler at the level of the haunch is 3/4". This may require that CDSM grout be removed at the level of the haunch. To facilitate a smooth grout transition, this may require that grout be removed below the level of the haunch and perhaps excavation of the haunch itself. This has implications for waterproofing.
3.At locations where 3/4" cover is not provided to the coupler at steel soldier pile locations, the coupler shall be removed with due regard to protecting the adjacent installed waterproofing.
4.Any bars abandoned shall be replaced with bars having proper clear cover. It is not required that these bars be doweled or spliced with the abandoned stubs.
5.The integrity of the waterproofing shall be maintained. Acceptance of the waterproofing by the manufacturer's representative at the completion of CDSM grout removal and patching is required.
This RFI may serve as the basis of a Corrective Action Plan which shall include:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Limits, products, and method of excavating and patching haunch concrete
If Option 1 is triggered, the CAP shall include:
Selective demolition plan and procedure for removal of the existing waterproofing and for the replacement of the back-up layers of materials and waterproofing.
Products and methods of CDSM grout removal and patching
Option 1 will not proceed until review and approval of the CAP Submittal by the design team and the owners waterproofing consultant.
Additional Requirements:
If waterproofing is damaged or otherwise deemed unacceptable, a supplement to the CAP shall be issued containing the repair.
Regardless of the option used to address the rebar issue, the contractor shall perform a vertical survey to establish the location of the CDSM wall and will establish its verticality. Sign off on the associated Nonconformance, NCR#441, will not occur before the contractor has presented documentation quantifying the presence or absence of a CDSM wall encroachment. Acceptable documentation would contain a vertical array of points capable of capturing bulges in the CDSM wall.
The owner's waterproofing consultant, the waterproofing contractor, the contractor's waterproofing designer, and the waterproofing manufacturer shall review the completed repair work to verify that the waterproofing has been properly protected or replaced (depending upon the repair procedure) prior to the continued installation of rebar.
Option 2 excavation and bar realignment may proceed per this RFI response

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RFI T-1124 **SSS - Plate Grade Substitution** **Closed** **01/21/2014** **01/31/2014** **01/27/2014** **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Note SS-1 on drawing S-0007 states plate used for built-up shapes as follows: "ASTM A572, Grade 50, UON (58

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The topic of this RFI is related to the thicken web at the moment connection panel zone. As specified, all

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

ksi max yield for plates used for beam flanges) ASTM 709, Grade 70W where specifically specified."

ASTM standards state the maximum plate thickness available in ASTM Grade 50 is 4", and for Grade 42 is 6" Numerous locations on the Moment Frame Columns specify thickened web plates that exceed 4" in thickness.

Is it acceptable to use ASTM A572 Grade 42 for plate thicknesses over 4"? If not, please specify required material and grade.

steel plates for built-up shapes shall be ASTM A572 Grade 50, or A709 Grade 70 where specifically specified. It is our understanding from steel fabricators, grade 50 plates thicker than 4" are available by normalizing grade 42 plates (a small premium) to gain higher strength.

SHIMM00-0326 **BGP - Plumbing Clarifications Area 4** **Open** **09/18/2013** **09/28/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Reference drawing PSK-2022 and IR Rreport 1633.

On 0/10/2013 DBI inspector expressed concern about the installation of the 2" vent and 3" connections in the mat slab area 4 - See IR 1633.

Please confirm that 2" ven and 3" connection pipes are to be installed per PSK-2022.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM00-0361 **Dewaering Well Re-Route** **Open** **10/21/2013** **10/31/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Scott Bunnell **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference Detail 6/A1-8711 and S1-3201 of the Contract Drawings and the attached drawing.

SCCI is requesting to re-route all 2" dewatering well llines as proposed in the attached drawings. The re-route is to elimnate any potential conflicts with future work (bracing removal, wall waterproofing, rebar, and for/pour/strip). Upon completion of the use of the dewatering system, the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

line will be cut below the sleeve, capped and grouted in with the trestle block-out pour back. The line will be poured in place with the future mat and concourse slabs and all 3 wall lifts. The line will also be capped at the top of the final wall lift.

Is this acceptable?

SHIMM000-0001 **BGP - Construction Joint Layout** **Closed** **11/15/2012** **11/25/2012** **11/15/2012** **Potentially** ☐

From: Shimmick Construction Company, Inc Tyler Shell **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Please confirm that the construction joint layouts for the Lower Concourse, Foundation Walls and Mat Slab as shown on sheet SL-025 (Exhibit A) are acceptable. Please note that the construction joint lengths of the Mat Slab exceed 120 linear feet in (7) of the specified areas.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construction joints on Sheet SL-025 are diagramatical in nature and is not intended to replace the design drawings. Proposed construction joint locations shall be included in a submittal per specifications and conform with the requirements set forth in specification section 03 30 20.

SHIMM000-0002 **BGP - Foundation Wall Horizontal Construction Joint Elevation** **Closed** **11/27/2012** **12/07/2012** **11/27/2012** **Potentially** ☐

From: Shimmick Construction Company, Inc Tyler Shell **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

Reference Drawings: S1-3201, SCCI#11 & #12
Reference Specification: 03 30 20

Please see attached drawings showing conflicts between the temporary waler lookouts and the horizontal wall construction joints as shown on drawing S1-3201. Please provide direction

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Coordinate construction joint locations with TG0300 including but not limited to shop drawings and sequencing consistent with S1-3201. Submit proposed joint locations for evaluation.

SHIMM000-0003 **BGP - UV damage to Modified Bitumen Waterproofing** **Closed** **01/11/2013** **01/21/2013** **01/11/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Specification Reference: 07 12 10

Most of the self-adhering modified butimens are damaged by long-term exposure to UV. Can this membrane be exposed to ultraviolet radiation for extended periods of time? If so, how long?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to the Manufacturer's product data and specifications regarding allowable time the modified Butimen Waterproofing can be exposed to ultraviolet radiation. All means and methods of sequencing construction must adhere to the manufacturer's specifications and recommendations as defined for allowable UV exposure.

SHIMM000-0004 **BGP - Modified Bitumen Waterproofing** **Closed** **01/11/2013** **01/21/2013** **01/11/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 07 12 10

A two-ply self-adhered modified bitumen waterproofing system has been specified for this blind side application (Section 1.1 of Specifications). It is unusual for any modified bitumen system to be used in a blind side application (i.e., where the waterproofing is installed before the structure is constructed). Section 2.2 of the Specifications lists only one potential manufacturer, Laurenco Waterproofing Systems. The Laurenco system is a bitumen modified with chloroprene rubber and applied with a cold adhesive. The required waterproofing membrane properties listed in Section 2.4.B are identical to those published by Laurenco. We cannot find any other other modified bitumen manufactured with chloroprene on the market. Are you aware of any other systems?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

If Shimmick cannot find an equal system, proceed per the specified manufacturer.

SHIMM000-0005 **BGP - Waterproofing Wall System Layers** **Closed** **01/11/2013** **01/21/2013** **01/11/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 07 12 10, 3.2-3.3

1. Section 3.2, D. requires the protection board horizontal construction joints to be shingled lapping the upper sheet

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Adhere to the manufacturers' specified details.

2. Please provide the manufacturer's shop drawings depicting the 1/2" thick insulation between drainage

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over the lower sheet by 4 inches. What is the purpose of this shingle? Since the waterproofing membrane will not be adhered directly to the protection board and layers will be present between them (e.g. drainage composite w/filter fabric, insulation, felt), the shingle does not seem necessary. Please confirm.

2.Section 3.2, F. reads "seal top edge of filter fabric to membrane". There is a layer of 1/2" thick insulation between drainage composite and waterproofing membrane. Please clarify.

3. In addition to these items, there is also a concern about the number of layers used on this wall including the stability and durability prior to concrete placement. There is a large potential for problems such as creep of the adhesives securing the various layers together and loss of adhesion between layers. What is
the purpose of the asphalt saturated felt layers, drainage composite, filter fabric and EPS insulation? Can some of these layers be eliminated? What level of adhesion is required between layers? Does this system of layers have sufficient rigidity to provide intimate contact between the waterproofing layer and

composite and waterproofing membrane.

3. We concur that asphalt saturated felt layers, drainage composite, filter fabric, and EPS insulation are required by the specifications as layers in the waterproofing. Please submit specific RFI's requesting clarification for dispcrepencies between the specifications and what is shown in the drawings. Furthermore, please address specific locations shown on the contract drawings that are in concern with the manufacturer's details.

SHIMM000-0006 **BGP - Horizontal Construction Joints - Foundation Walls** **Closed** **01/16/2013** **01/26/2013** **01/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 03 20 00
Reference Drawing: S1-3001

Please reference detail 7 on Drawings S1-3001 and Specifications Section 03 20 00 3 .2-B. Structural details do not clearly show size of the foundation wall horizontal construction joint keyway. Specifications Section 03 20 00 3 .2-B, however, calls out for: "1-1 12 inch deep key type construction joint at the end of each placement for slabs, beams and walls unless otherwise noted on drawings". Since Specifications take precedence over the drawings in this case, SCCI believes that all horizontal construction

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Sheet S-0005 note GR-11 reads "APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE."

Sheet S1-3201 references 7/S1-3001 for all horizontal constructions joints in the foundation walls.

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joints in the foundation walls shall have 1 1/2" deep keyway.

SHIMM000-0007 **BGP - WPM-1 - Mud Slab Finish for Waterproofing** **Closed** **01/17/2013** **01/27/2013** **01/31/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Specification Section 07 12 10, 3.2

The concrete surface profile (CSP) required by the waterproofing manufacturer Laurenco, ranges between a CSP level of 2 and 4 as defined by the International Concrete Repair Institute (ICRI) of technical guide "Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays." The ICRI defines the levels of CSP as 1 (nearly flat) to CSP Level 9 (very rough). The Laurenco waterproofing system requires "a good wood screed or broom finish...often referred to as a 'sidewalk' finish..Do not use a steel trowel finish." See attached excerpt of the manufacturer specification.

1. Please confirm the specified ICRI CSP requirements as it relates to surface finish are to supersede the varying ASTM F-value requirements setforth in specification section 030300-3.6, B1 or provide a revised specification section 033000 incorporating the ICRI requirement.

2. Please confirm a wood screed or broom finish is accpetable for the mud slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See response to T-0370

SHIMM000-0008 **BGP - Geothermal Pipe Penetration Sleeves at the Manifolds** **Closed** **01/30/2013** **02/09/2013** **01/30/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Lynn Kowallis **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Drawing: A1-8710

Per Detail 1 on plan sheet A1-8710, the pipe penetration

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference Note 5 on Sheet M-0006 which states "The header pipes shall be installed up to the ceiling of the lower concourse level recessed in the face of the

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sleeves are not to be anchored to any portion of the CDSM wall. The sole mounting connection for these pipe sleeves is the bitumen waterproofing membranes. The waterproofing membrane is not strong enough to use as anchorage for these sleeves even with temporary support. The likelihood of jeopardizing the membrane with the design in Detail 1 is high.

S3H proposes a constructable solution. Please find attached the details for a constructible design. This design eliminates the waterproofing anchorage support of the penetration sleeve. Please advise.

CDSM shoring wall. Prior to construction of the top of the foundation wall the pipes shall run to grade where they are capped with pressure gauges. During the forming of the final portion of the foundation wall, the headers are to be modified and installed in their final position through the foundation wall. In their final position the headers will be valved and capped with a pressure gauge."

SHIMM000-0009 **BGP - Geothermal Loop Soil Compaction** **Closed** **03/04/2013** **03/14/2013** **03/04/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

After observing existing subgrade compactions varying from 88%-95%, it appears that the existing conditions of the soil could be below the 95% compaction requirement. In the case of a geothermal loop being installed in areas with existing soils below 95%, can the geothermal loop be compacted to the localized compaction level in accordance with ASTM Dl557? For example, if the first field has an existing condition of88% compaction, can the geothermal loop trenches be compacted to 88%? 95% compaction may not be possible with the existing soils and existing compaction in some areas.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See Response to RFI T-0387 and RFI T-0405.

SHIMM000-0010 **BGP - Schedule Dates for GLS/GLR Manifold Construction** **Closed** **03/05/2013** **03/15/2013** **03/05/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Exhibit "I" of the TG06.1 bid package is a conceptual schedule. This schedule does not provide a date for the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to 01 13 10 .1.2.C & F. Provide a revised schedule showing activities pertaining to the

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installation of the stainless steel geothermal manifold sleeve penetrations or manifolds themself. Please provide a date of installation for the sleeve penetrations and manifolds for each of the 15 fields.

installation and testing of the geothermal sleeve penetrations and manifolds. Note that the installation of this work cannot delay follow on trades (i.e. superstructure concrete, superstructure steel). Coordinate with W/O as to the timing of the installation of these systems so as not to affect follow on trades.

Please coordinate off of the P6 schedule that W/O sends to SCCI weekly.

SHIMM000-0011 **BGP - Geothermal Pipe Elevation** **Closed** **03/06/2013** **03/16/2013** **03/06/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Drawing: M-5002

Per drawing M-5002, Detail I, the GLS/GLR manifold piping is above the TG06 SOW demarcation line. Due to constructability concerns of the manifold, is it acceptable to install the manifold at a lower elevation below the TG06 SOW demarcation line?

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per the 3/06/2013 Geothermal RFI meeting, install GLS/GLR manifold piping per M-5002.

SHIMM000-0012 **BGP - Monitoring Instrument Penetrations** **Closed** **03/11/2013** **03/21/2013** **03/11/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Drawing: A1-8711

Per plan sheet A1-8711, Detail 3, the monitoring instrument penetration sleeve is to be place around the monitoring instrument itself. From the field, it appears that some of these monitoring instruments exist as drawn in Detail 3 (Picture 1) while others seem to be placed within an additional, larger sleeve (Picture 2) casing. This additional casing occurance isn't accounted for in the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please reference BBII's dewatering/piezometer layout and Arup's Global Analyzer log in information for coordination of sleeves per detail 3 or detail 6 of A1-8711.

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contract documents. Please advise to this type of sleeve dimensions and detail. Please note that one of these types of monitoring instrument sleeves is located in the first area to be water proofed and poured for the protection slab.

SHIMM000-0013 **BGP - Welding for Penetration Sleeves** **Closed** **03/12/2013** **03/22/2013** **03/12/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Andy Khuu **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference RFI T-0411

The Engineer's response to RFI T-0411 states that the collar ring and cap plate cannot be shop welded prior to being installed and that the collar must be welded onto the sleeve prior to the mat slab pour for access purposes. However, in the submittal comments to SUB-TG0600-036, the Engineer clearly states
that the "contract documents specify a field weld of the steel ring such that the pile can be cut and removed without the ring installed." Without access to weld the collar after the mat slab has been poured, it isn't possible to weld the assembly in the field. Additionally, if the collar is to be welded prior to the pile being cut, damage will most likely occur to the ring plate or sleeve during the cutting process as stated in the submittal comments. With the comments to submittal TG0600-036 and the response to RFI T -0411 clearly contradictive, please provide the necessary construction sequencing to avoid damage to the assembly in the field and enable a constructible design.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference Drawings: 2/S1-3003, 5/S1-3003, 6/S1-3003.

Per detail 2, 5 and 6 on sheet S1-3003 the ring plates are shown to be field welded.

SHIMM000-0014 **BGP - Geothermal Risers in Leaking CDSM Wall** **Closed** **03/18/2013** **03/28/2013** **03/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

With water leakage throughout the CDSM wall at many different locations, the likelyhood of a geothermal loop

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Discussed in Geothermal RFI Meeting 3/06/2013.
Refer to follow up RFI SCI-087.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

riser being laid out in the location of a CDSM wall leak is high. In the event that the Geothermal Riser is located at the same location as a CDSM wall leak, what should S3H do? Should the riser be relocated to a portion of wall that isn't leaking? If the riser is to be embedded in the wall at the location of a leak, grouting the riser back into the wall will not be possible. Please advise.

SHIMM000-0015 **BGP - Shoring Beam in Sump Pit** **Closed** **03/18/2013** **03/28/2013** **03/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Photo: attached

Please find attached a photo of the sump pit near J Line in the Geothermal Field 1. In the pit, there is a H-beam from a previous shoring wall. There is potential for this beam to come in conflict with with geothermal loop. Is this beem to be removed? Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please confirm that the H pile is in conflict with the geothermal loop.

SHIMM000-0016 **BGP - Clarification of Mass Concrete Reporting Periods** **Closed** **03/25/2013** **04/04/2013** **03/25/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Please reference specification section 03 30 20.3. 11.A (pg 24).

CTL Group "Thennal Control Plan Model ing" Figure 3 (submittal TG0600-20 1.1 It em #033000-0 I 1.1 pg 8), illustrates the max temperature di fferential is reached and has begun to drop at approximately 8 calendar days.

SCCI will record temperature differentials at 6 hr intervals and report those readings on a daily (24 hr) basis. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Record temperature differentials per 03 30 20 3.11.A and submit to Webcor Obayashi with SCCIs daily reports.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0017	**BGP - Concourse Slab Beams and Trestle Pile Conflicts**	**Closed**	**04/09/2013**	**04/19/2013**	**04/09/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Lynn Kowallis

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: S1-2202 through S1-2210
Submittal TG0300-284.1 revision 7

Please reference attached drawings. SCCI has overlaid the locations of the trestle and bridge piles onto Contract Drawings S1-2202 through S1-2210, the Lower Concourse Slab Framing Plans. The locations of the piles were taken from BBII Submittal TG0300-284.1 revision 7. These are the most recent drawings SCCI has available for the actual locations of the piles. The attached drawings show the piles running vertically through 22 future Concourse Slab beams.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pursuant to sheet note #9 on sheet S1-2052 for each pile conflict please provide the northern dimension to the nearest alphanumeric grid line and easting to the nearest numeric grid line.

Revise and resubmit.

SHIMM000-0019	**BGP - Foundation Wall and Internal Bracing Conflict**	**Closed**	**04/09/2013**	**04/19/2013**	**04/09/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Ref: Sketch - SCI-103

Please reference attached sketch of the top of the foundation walls. At gridlines 1 thru 26, top of the foundation wall above the lower concourse level is in conflict with the shoring level A. The A level lookouts encroach into the top of the walls for approximately 8". For constructability of waterproofing, and reinforced foundation wall SCCI requires 12" minimum clearance above the top of
the wall. Conditions described herein do not allow top of foundation wall to be constructed per Contract Plans.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response provided in RFI RFI T-0527.2

SHIMM000-0020	**BGP - Waterproofing and CJ Layout Conflict**	**Closed**	**04/10/2013**	**04/20/2013**	**04/10/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Kirk Nielsen **Answered By:** Webcor Construction LP Kirk Nielsen

Co-Author:

REQUEST:

Please reference Al-2203 and Sl-3201ofthe Contract Plans

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Consistent with RFI response #SHIMM000-0002 dated

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

and the attached drawings. The current elevation at the bottom ofthe 2nd level bracing lookouts is at approximately -5.13, WEST of Grid 9 (see concourse slab drawing). The proposed top of concourse slab elevation is to be -5.42, WEST of Grid 9. Per the WPM-1 waterproofing system, the minimum overall tie-in dimension needed for the succeeding lift is approximately 1 '-11" (see attached waterproofing drawing). The current elevation at the bottom of the 2nd level bracing lookouts is at approximately -6.15, EAST of Grid 9 (see concourse slab drawing). The proposed top of concourse slab elevation CJ is to be -7.67, EAST of Grid 9. Per the WPM-1 waterproofing system, the minimum overall tie-in dimension needed for the succeeding lift is approximately 1'-11" (see attached waterproofing drawing). In both locations, the minimum required dimension (1 '-11") to tie-in to the next lift of waterproofing can not be reached with the current location of the 2nd level bracing lookouts and the proposed concourse slab elevations. SCCI is restricted in location for the CJ due to the absolute concourse slab location and elevation.

Furthermore, a similar conflict exists in the 1st foundation wall lift and the 3rd level of bracing lookouts (see 1st wall lift drawing). With SCCI's current location of the CJ, there is virtually no room to allow for the waterproofing overlap to occur. SCCI fully understands its freedom to manipulate the location of the CJ's by lowering it approximately 2'. This will potentially change BBII's rebracing plans.

Please advise.

11/27/12, revise the proposed locations of the CJ's to accommodate / coordinate with all of SCCI's work consistent with the sheet note on 1/S1-3201.

SHIMM000-0021 **BGP - Differential Movement in Waterproofing Layers** **Closed** **04/26/2013** **05/06/2013** **04/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Per the Engineer's response to Submittal TG0600-023.2, the Contractor is to install the waterproofing system to incorporate "provisions for differential movement". Please reference the contract documents that specify the design criteria for the differential movement of the structure.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The submittal note states "...including provisions for differential movement between adjacent components as required by the membrane manufacturer" rather than any specification or drawing.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please advise to a specification or drawing note that details such.

SHIMM000-0022 **BGP - Testing of WPM-1 Seams** **Closed** **04/26/2013** **05/06/2013** **04/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 071210 - 3.5.B

The Specifications call for testing of"seams" independently by Applicator and Manufacturer. In the waterproofing pre-installation meeting on 3/27113, the Manufacturer (Laurenco) and the Architect stated that testing of seams is not required as this is not a single-ply system. Please define "seam" and advise if testing of seams is required or not, and if it is, then to what extent?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification 07 12 10 3.5.B remains unchanged. A seam is where any specified waterproofing component joins by overlapping.

SHIMM000-0023 **BGP - Carlisle Miradrain 9900 Drainage Composite** **Closed** **04/26/2013** **05/06/2013** **04/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 07 12 10 2.5.C

This section calls for "Drainage Composite: Three dimensional plastic rolls bonded to a geotextile on one or both faces: Mirafi Miradrain 9900, or equal with a minimum compressive strength of30,000 psi." The waterproofing membrane manufacturer (Laurenco) states that the specified product "Miradrain 9900" no longer meets the performance requirements of the specifications since the woven filter fabric is no longer bonded at every dimple of the molded polystyrene core. Best Contracting has contacted the drainage composite manufacturer and they have confirmed that the woven filter fabric is bonded at every fourth dimple. Best Contracting has also performed a shop "mock up" using the aforementioned composite which resulted in complete separation and failure upon the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Fully bonded Miradrain 9900 is available upon request of Carlisle. If Bestdoes not want to use Miradrain submit a request for substitution pursuant to specification section 011630 and 000440.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

installation of the waterproofing membrane. Please provide direction.

SHIMM000-0024 **BGP - Additional Fasteners for Protection Board Installation** **Closed** **05/02/2013** **05/12/2013** **05/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Kirk Nielsen **Answered By:** Webcor Construction LP Kirk Nielsen

Co-Author:

REQUEST:

Please reference Spec Section 07 12 10 - 3.2.D. Spec Section 07 12 10 - 3.2.D states the following: "Secure 1/4" protection board to flanges of soldier piles with powder driven fasteners and washers spaced 12 inches o.c. Butt vertical joints . Maximum joint width : 1/4"..."

The manufacturer of membrane waterproofing system (Laurenco) has indicated that due to "out of plane" piles, and relaxation of CDSM substrate requirement, they are requiring intermediate fasteners to hold the 1/4" protection board tight to the CDSM wall. Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The pile plane always had a tolerance as was the CDSM surface was never continuously supported.

Consistent with John Laurence (Laurenco's) comments during the 4/30/13 waterproofing meeting the concern over the protection board deflecting can be mitigated by two methods:

1. Intermediate fasteners
2. Ensuring when placing concrete SCCI does not cause the protection board to excessively deflect.

This is a means and methods issue at the discretion and cost of the Trade Subcontractor.

SHIMM000-0025 **BGP -Request for Revit Model** **Closed** **05/02/2013** **05/12/2013** **05/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Andy Khuu **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

SCCI is requesting access to the latest, most up to date Structural and Architectural Revit models from the designers. The 3D database would be used for reference only and will not be used for construction. SCCI understands that the 3D Database is subject to change as the project design evolves. As a user of this 30 database, SCCI accepts the risk and acknowledge that the data is subject to change. SCCI also acknowledges the terms and conditions outlined in the Transbay Transit Specification Section 01 31 26.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Not proper use of an RFI as per specification section

Please

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0026	BGP-Geothermal Field Riser Pipe Termination	Closed	05/13/2013	05/23/2013	05/13/2013	Potentially	☐

From: Shimmick Construction Company, Inc John Berggren **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Specification: 23 57 34
Reference Drawing: A1-8712, M1-5002

Stainless sleeves as shown on A1-8712 and M1-5002 (copies attached) are not part of the S3H's scope of work. Reference is made to Note 1 and Note 2 on M-0006 (copy attached), the highlighted notes in Detail2 on A1-8712, and the SOW demarcation line in Detail A on M1-5002. S3H Inc. will terminate pipe at grade as shown in Detail A on M1-5002 with pressure guage to be modifed by Others. Please confirm.
[S3H RFI No. 36]

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Sleeves as shown on A1-8712 and M1-5002 are a part of S3H's scope of work. The grey SOW line on M1-5002 clearly stops short of the geothermal riser which continues into the manifold sleeves uninterrupted. Detail 3/M1-5002 also distinguishes the geothermal wall penetration as being apart of the TG06 scope of work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0027	BGP - Temperature Probe Sleeve Penetration	Closed	05/13/2013	05/23/2013	05/13/2013	Potentially	☐

From: Shimmick Construction Company, Inc John Berggren **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference is made to RFI T-0388.0 (copy attached) is stating the temperture probe piping shall be installed per Note 6 on Sheet M-0006. Per Note 2 on Sheet M-0006, the additional mechanical work shown above the demarcation line is for reference only and was not included in the TG06.1 package. Please confirm and clarify the design intent.

[S3H RFI No. 028]

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Install per RFI T-0338 response. The demarcation line does not exclude any the mechanical work referenced as it stops short of the geothermal piping.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0028	BGP - Mat Slab Elevator Opening Embed Dimensions	Closed	05/10/2013	05/24/2013	05/15/2013	Potentially	☐

From: Webcor Construction LP Ian Corcorran **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. RFI T-0439.1

TJPA's response to RFI T-0439.1 stated "Final elevator post locations shall be coordinated with elevator manufacturer." The response has a second option to use a continuous L8x4x1/2 in lieu of the 1'-2" base. Please

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The elevator manufacturer will not be awarded a contract for over a year and a half.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

provide the elevator post locations if an elevator manufacturer has been selected? If not, SCCI is requesting to use continuous embeds. Please advise if this is acceptable.

SHIMM000-0029 **BGP - High Congestion Mockup Revit File** **Closed** **05/20/2013** **05/30/2013** **05/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Jesse Dillon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Gerdau is requesting the 3D Revit model of the isometric high congesting area shown in SI-3208/DI. This will allow Gerdau to determine conflicts prior to fabri cation of rebar for the upcoming mock up. Please provide Revit file showing this area.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per response to RFI T-0534, "The updated In-Progress Revit computer model will be issued to TJPA for review and comment on May 31, 2013". TJPA will forward this model to the Contractor for information, review, and comment."

W/O will share the model as necessary once the model has been recieved and reviewed.

SHIMM000-0030 **BGP - Lower Concourse and Mezzanine Plumbing** **Closed** **05/21/2013** **05/31/2013** **05/21/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Jesse Dillon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Please reference attached Contract Drawings PI-2202 IFB and PI-2202 IFC. Both IFB and IFC plumbing drawings have the callouts "BELOW GRADE PACKAGE FOR REFERENCE ONLY", "NOT FOR CONSTRUCTION" and do not contain the Architect's/Engineer's seal. This circumstance applies to all Lower Concourse Level and Mezzanine level Plumbing Contract Drawings, PI -2202 to PI-2211 and PI-2252. All Lower Concourse and Mezzanine plumbing depicted in these drawings is excluded from the Below Grade Package. The scope excluded from SCCI's work package includes, but is not limited to, floor drains, area drains, floor sinks and cleanouts. Please inform SCCI about which future package this scope is contained for coordination.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TG06 scope of work for the lower concourse and mezzanine includes all sleeves and openings as per the contract drawings and specifications. The future package containing the floor drains, area drains, floor sinks, and cleanouts has not gone out to bid.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0031	**BGP - S-3 Wall Stirrups Preassembled Using IDEA Machine**	**Closed**	**06/04/2013**	**06/14/2013**	**06/04/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Andy Khuu **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference: RFI T -0340 and T -0526

Approval was provided to utilize the IDEA machine per the response to RFI T-0340. Since the issuance of this response, approval has also been provided to utilize an S-3 stirrup in lieu of the T-9 hairpin within the walls per RFI 0526. Please confirm that it is acceptable, following the same criteria as outlined in the response to RFI 0340, to use the machine/welded holding wires to pre-assemble the stirrups within the wall reinforcing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Voided per SCCIs request.

SHIMM000-0032	**BGP - RFI 448.5, Dimension From Grid Line to Extent of Change**	**Closed**	**06/20/2013**	**06/30/2013**	**06/18/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Andy Khuu **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Michael Spillane

Co-Author:

REQUEST:

Reference: RFI T-0448.5

Within the response to RFI 448.5 the proposal indicates to utilize Option 1 between CDSM piles #733 - #772. No dimension for reference has been provided to layout the reinforcing details. Please provide a dimension from the nearest grid or column line to the Eastern most extent in which the wall change is required per RFI 448.5.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent is to replace all the original reinforcement WR1 west of GL -06 as show on drawing S1-2060 with the modified reinforcement detail option One

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SHIMM000-0033	**Foundation Wall Conflicts with Level A Bracing**	**Closed**	**06/24/2013**	**07/04/2013**	**06/24/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Robert Kjome **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

See attached drawings CJ-35 and CJ-66. Per response to RFI T-0527.1, Wall lifts W326 and W350 are still in conflict with the shoring level A.
Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached response to RFI T-0527.2

SHIMM000-0034	**BGP - RFI T-0527.1, BSE- Revision to Zone 4 Bracing Elevations Level A-D, Clarific**	**Closed**	**07/02/2013**	**07/12/2013**	**07/02/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Andy Khuu **To:** Webcor Construction LP Michael Spillane **Answered By:** Webcor Construction LP Michael Spillane

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: RFI T-0527.1 - BSE -Revision to Zone 4 Bracing Elevations Level A-D

In the response to RFI T-0527.1, W/0 included a comment "The TG06 Trade Subcontractor is to provide a credit for, to include however not limited to, the concrete rebar and waterproofing which has been deleted from the TG06 scope of work." Please confirm if the intent of the RFI response is to eliminate the 4th lift ofwall reinforcing above the upper CJ as lowering the elevation of the CJ does not reduce the quantity of the reinforcing required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent is to remove the 4th lift of wall reinforcement from the TG06 scope of work

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SHIMM000-0035 **BGP - 'Intermediate' Base of Sleeve Flat Mud Slab Elevation for 8 Penetrations in F** **Closed** **07/08/2013** **07/18/2013** **08/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference: SK-2676,S

SCCI is in receipt of RFI T-0479.1 response outlining that there will be 8 additional areas requiring slab penetration detail per SKA-2676 and SKA-2677 (issued in original RFI#0479).
Please provide the elevations of 'intermediate' base of sleeve flat horizontal mud slab area for all 8 trestle piles, pin piles or bridge piers.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The elevations of the penetration sleeves have been coordinated per field walk between Jose Verduzco (W/O), Scott Bunnell (SCCI) and Don Muns (TCCO). Please coordinate all sleeve elevations for Zone 4.

SHIMM000-0036 **BGP - Area 3 Room Layout Discrepancies** **Closed** **07/16/2013** **07/26/2013** **07/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

SCCI is in receipt of CR #071- ASI #104 on Jun 26th, 2013. This ASI #104 changes the layout of the room in area 3 mat slab. This changes the partition wall configuration and the dowels coming out of the mat slab that are required for the construction of the partition wall rebar.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SCCI is to construct and install per RFI T-0612 response, which is the most up-to-date drawing.

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SCCI is also in recipt of RFI response to T-0612 on July 2nd, 2013, after the issuance of ASI #104. In this RFI response, the layout of the rooms and partition walls, as well as updated wall, door opening, and control joint locations for the B2 Emergency Electrical Room B2880 shown in A1-9214 are altered with the issuance of SKA-2746 to 2750.

Please confirm which room layout, door opening, and control joint SCCI is to construct and install, especially the layout as shown on A1-9214. (E.G: Please provide the most final/ updated drawings)

SHIMM000-0037 **BGP - Mass Concrete Specifications** **Closed** **07/17/2013** **07/27/2013** **07/17/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please reference attached letter published by Jon Feld, CTL Group, dated July 8, 2013. This letter contains further analysis of the "Perfomance-Based Temperature Differential Limit", also refered to as "Strength-Based Temperature Difference Limit", for Mat Slab mix # 1557204.

This additional analysis was prepared per RFI response T-0585, in which the reviewer found this PBTDL method to be acceptable based on satisfying four (4) conditions. See below:

I. The attached analysis was specifically developed for mix #1557204

2. SCCI confirms that all remaining mass concrete specification requirements shall still apply.

3. Shimmick Construction will be providing field quality control and the required concrete maturity measurements through the "Concrete Maturity HardTrack System". Reference attached HardTrack system data and example concrete maturity data. This system has been procured by Shimmick Construction, and has been sucessfully tested

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The conditional requirements set forth in RFI T-0585 by George Metzger appear to be satisfied. Procedural requirements are approved via submittal. Please revise and resubmit via submittal package TG0600-201.X (TG0600-201.2, item # 033020-011.1.)

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on multiple mock-ups.

4. It is confirmed that Shimmick Construction shall remain responsible for providing a mat foundation that meets requirements of the contract documents.

Please confirm conditions have been satisfied. This analysis will be submitted as a supplement to the Mass Concrete Plan (TG0600-20 1.1)

SHIMM000-0038 **BGP - Geothermal Loop Excavation in Zone 4** **Closed** **07/19/2013** **07/29/2013** **07/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Ben Gordon **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Per discussions in the Trade subcontractor meeting with Turner, BBII, and WOJV, it is apparent that BBII has been directed to demo the buttress shafts in Zone 4 to bottom of mud slab elevation. Per the geothermal trenching and backfill specification 31 23 34, 1.1.A.1, the only slot excavation in CDSM/concrete is to be in the wall panels. The specification does not require slot excavation/demolition for the horizontal field loops. Per Plan sheet GT-5201, the buttress shafts are to be demolished to a maximum of 4' below subgrade elevation (bottom of mud slab). The geothermal pipe is to be installed at 15" below the bottom of mud slab elevation, well within the 4 ' below mud slab demolition elevation. Please confirm that the geothermal loops in zone 4 will be trenched in soil like the rest of the project and as detail din the geothermal trenching and backfill specification (31 23 34).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBI's contract drawing GT-2103 and the Geothermal shop drawings (TG0600-065), indicate the excavation and demolition of the buttress is set to final subgrade elevation 41'-5" or bottom of the mud slab. SCCI¿s interpretation on plan sheet GT-5201 as it relates to demolition is incorrect. The note "...shafts shall be maximum 4 feet below, maximum 2 feet above subgrade elevation" is in reference to the parameters set for the concrete (high strength) being placed in relation to the CLSM mix. These parameters are not set as demolition or excavation bench marks.

SCCI to proceed with geothermal loops in Zone 4 as shown in the approved shop drawing TG0601-065 and conform to specification section 31 23 34. SCCI to remit request for backfill and excavation requirements per specification 31 23 34 at buttress locations.

SCCI to consider the following when re-submitting: Does SCCI plan to demo the buttress shafts down to the required 15",re-fill the area and meeting compaction requirements? or Does SCCI intend to seek a design variance by slot excavating through the buttress' and seek back-fill requirements within the buttress from the design team?

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0107	**BGP - Concourse Slab Embeds and Trestle Pile Conflicts**	**Closed**	**04/09/2013**	**04/19/2013**	**09/20/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Ref: S1-2202, S1-2203 and S1-2205

Please reference attached drawings S1-2202, S1-2203 and S1-2205 with pile locations overlaid. There are three locations where the trestle piles interfere with the embedded assemblies at elevator and escalator openings/pits.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to WOJV RFI T-726. Further coodination is required to anlayize other conflicts.

SHIMM000-0141.1	**BGP - Moment Beam and Pile Conflicts**	**Open**	**07/29/2013**	**08/08/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Reference: SCI RFI-141, RFI T-0510.1

Please reference SCCI RFI # 141 and W/O RFI T-0510.1. The response to T-0510.1 provided details for rectifying the MFB conflict at internal Bracing Pin Pile #8. It was made clear this solution could only be used at Pin Pile #8. No guidance was provided for the additional five MFB conflicts shown in SCCI RFI #141.

Please provide information for the five additional MFB and pile conflicts shown in SCCI RFI# 141.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0203.1	**BGP - Blockout -Reinforcement and Size Detail Needed at Dewatering Well and Co**	**Closed**	**07/19/2013**	**08/02/2013**	**08/27/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

As a follow up to RFI#T0584 response:

1. General note GR9 on S-005 is not applicable for wall block out. Please provide block out detail for the reinforcement on the partition wall for blockout for: Dewatering Well #1, #21 and #22
2. For dewatering well #3- please provide detail for blockout for reinforcing at shearwall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response to RFI T-0584.2.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3. Please provide size and extent for blockouts for all 4 dewatering wells.

SHIMM000-0204.1 **BGP - Locations of Electrical Outlets, Equipment, and Fixtures** **Closed** **07/31/2013** **08/10/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Reference: Spec Section, 34 05 34

Per Specification Section 26 05 34, 3.2 B., the dimensions of the equipment fixtures and outlets are to be submitted via RFI for clarification pre pour. Attached is the layout for Electrical Room B2221 in the first Mat Slab pour.

Please confirm that these dimensions are acceptable so that the conduit can be laid out correctly.

SHIMM000-0204.2 **Locations of Electrical Outlets, Equiptment, and Fixtures.** **Closed** **08/23/2013** **09/03/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Please find attached the revised layout for Electrical Room B2221. Please confirm that the layout is acceptable.

SHIMM000-0204.4 **BGP - Locations of electrical Outlets, Equipment and Fixtures** **Accepted** **09/12/2013** **09/22/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Per the RFI response, please find attched the revised layout for the Electricl Room B2221. This revised layout shows the dimensions of the conduit locaitons in respec tto the interioor walls. Additionally, dimensions showing th

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

eroom locaiton in respset to the grid lines are shown.
please advise if it is acceptable.

SHIMM000-0233.1 **BGP Bracing Removal Sequence - Area 5-13** **Open** **07/30/2013** **08/09/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

The latest Webcor's weekly update schedule received by SCCI (Data date 06.17.2013), shows that:

- Bracing Removal- Level D" (BGSOX-1120) is the driving predecessor to "Wall Waterproofing} st lift" (BGSOX-4000)- in each area.
- Bracing Removal- Level C" (BGSOX-4100) is the predecessor to "Wall Waterproofing- 2nd lift" (BGSOX-4110)- in each area
- Bracing Removal- Level B" (BGSOX-6000) is the predecessor to "Wall Waterproofing- 3rd lift" (BGSOX-6010) in each area

Based on the current schedule logic, the bracing will need to be modified to allow the removal of walers and struts in each area, separately and independently from each other. E.g: Any walers spanning two areas will need to be cut during removal of bracing so SCCI can proceed with the waterproofing install in that area, without having to wait for the adjacent area. This is applicable to Bracing Removal level B, C and D. As requested in RFI#233 response, please find attached bracings that SCCI assumes are going to be removed/ cut prior to SCCI's specific wall pour.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0242.1 **BGP - 100% CD Phase 1 Documenation** **Accepted** **08/22/2013** **09/01/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The responses to SCCI's s RFI#0242/ WOJV RFI T-0633
refers to "100% CD Phase 1 Documentation"
for the drawings that have not been issued in ASI#104
SCCI does not have access to and has not received the
following drawings that are needed to finalize the
pricing of ASI#104:
A 1-2224-2231
A 1-2844-2846, 2848-2851
Please provide 1 00% CD Phase 1 Docs for the pages
listed above

SHIMM000-0252.1 **BGP - Geothermal Loop Excavation in Zone 4** **Accepted** **07/30/2013** **08/09/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Reference: Spec Section 31 23 34

SCCI received the response to RFI-252 regarding the excavation of the geothermal loops in Zone 4. The response directed SCCI to conform to specification senction 31 23 34 regarding the ptential section 31 21 34 that cover buttress concrete demolition for the geothermal loops. SCCi is aware of the CDSM wall excavation required for the geothermal field risers, but is not aware of a geothermal specification requiring buttress shaft dempition for the geothermal loop trenches. Specificaion 31 23 34, Section 3.2 is very clear i the ful scope of the gound excavation in soild and wall riser excavation in CDSM, but it does not cover trenching in buttress shaft concrete.

Please advise.

SHIMM000-0255 **BGP - Plumbing Scope Clarification ASI 104** **Closed** **07/26/2013** **07/27/2013** **07/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference: Drawing P1-6001, Spec Section 22 13 01

See attached marked up Rev 0 and Rev 1 Drawings P 1-6001. Pl-6001 Rev 1 is a revision per AST 104. Rev 1 of the noted drawing does not have any "for reference only" notations in the details.

Is the intent of the Designers to significantly change the scope of TG06 work?

Please clarify the scope of work, i.e. applicable and non applicable details of the CD P1-6001 for the TG06 package.

As per the attached drawing:

1. Detail 1, 2 and 5 of drawing sheet P1-6001 (ASI #104) depict typical standpipe details. These details are not applicable to the TG06 package.
2. Detail 4/P1-6001 (ASI #104) depicts a change in the floor clean-out cover. This detail is applicable to the TG06 package where the floor drains are either at the concourse and mat slab level and the specific detail is called-out for "floor cleanout detail."
3. Detail 6/P1-6001 is applicable if below the concourse slab. Typ.
4. Detail 11 and 12 of sheet P1-6001 show sump pump details titled "Detail At Mech Pump Room B2230 and B2442." The applicable scope to TG06 includes embeded pipe in the mat slab or added pony wall, pony wall and pit opening.

WOJV welcomes a page-turner with SCCI for any future clarifications.

SHIMM000-0261 **ASI#104- TG06's Scope Clarification** **Closed** **07/26/2013** **08/05/2013** **07/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor/Obayashi Joint Ventu Spencer Sayles **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

There are multiple changes beween the Issued for Construction (IFC) drawings to the newly issued ASI #104 drawings. This RFI requests for information regarding TG06's scope of work that may or may not be added through the issuance of ASI #104 due to removed notations "For Reference Only " or similar.
Please provide clarifications of TG06's Scope per ASI #104 in the following drawings (also attached):

S1-7005, S1-7101, S1-7111, S1-7600, S1-7602, S1-7660, S1-9000, S1-9050 and S1-9051.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per the attached drawing:

1. Per drawing S1-7005 (ASI #104), exclude all steel/stair components, all other details are applicable. Show credits for wall removal etc. accordingly in pricing reviiew of ASI #014.
2. Per drawing S1-7101 (ASI #104), the only applicable detail is 1/S1-7101. All othe detail are shown to be on the ground level, second level and bus deck level. Please note, there will be no poured in place walls on the concourse level in the TG06 package; however, SCCI will provide the applicable dowels to accomodate the tie-in.
3. Per drawing S1-7111, the details in question are on the ground, second and bus deck level. Not applicable

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4. Per drawing S1-7600, the details in questions are metal stair related. Not applicable.
5. Per drawing S1-7602, see item #4. Details are Slab On Metal Deck.
6. Per drawing S1-7660, all details in question are applicable to TGO6 trade package.
7. Per drawing S1-9000, the only applicable scope to TG06 package will be dowels for CMU tie-in
8. Per drawing S1-9050, see note 7.
9. Per drawing S1-9051, the detai lin question is applicable only if this detail occurs at the concourse slab and below.

SHIMM000-0263 **BGP - Revised Attached Method of Nelson Studs to the Elevator Pit Embedded An** **Closed** **07/24/2013** **08/03/2013** **08/05/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Spec Section 05 50 10

While attaching the 3/4" diameter by 8" Nelson Studs to the 8" X 4" X 1/2" angle it was determined the studs were not fusing to the base metal (angle). To maintain the procurement schedule of this fabrication needed for the Zone 1 - Area 03 Mat Slab placement, our fabricator (Gerlinger Steel) used the fillet weld method performed under the attached Welding Procedure Specifications (WPS) to attach studs to the angle(s). The welding was witnessed by the dispatched (IR #001459) ISI Shop CWI. Attached for the readers informationm and use are the shop fabrication drawing, the employed WPS, and photographs of the finished fabrication.

Is the alternate means of attaching the Nelson Studs to the angle, using the fillet weld method in lieu of the fusing method, acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The angled stud in the interior of the angle requires a different type of ferrule (heel) to address the angled condition. The alternate means used to attach Nelson studs for angles in this RFI is acceptable provided that at least 2 studs per angle have been verified by bend test per specification section 03 20 00 2.2.C.2, which references AWS D1.1-2010 (Paragraph 7.8 for testing requirements).

SHIMM000-0264 **BGP - Shear Wall Dowel and Shoring Pipe Bracing Conflict** **Closed** **07/24/2013** **08/03/2013** **08/07/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Drawing S1-3001, Spec Section 03 30 20

A few potential conflicts exist between the typical shear wall vertical dowels and the 36" OD shoring Pipe Struts in Area 1. See attachement for locations of conflict.

Based on Detail A shown in S1-3260, the typical shear wall verts will be lap spliced.

Per the schedule in Detail 1-S1-3001, the #9 vertical shear wall reinforcement requires a 63" lap splice, which places the top of dowel at elevation -30'-5".

The centerline of Level D diagonal bracing atop Area 1 is shown to be at EL -29'-0" and the bottom of the 36" OD pipe strut at level D is at EL -30'-6".

The pipe strut will potenially encroach on the shear wall dowels since the vertical spacing is #9 at 10" OC.

Please confirm that a 60" lap splice is acceptable at locations where conflicts exist, if not please provide soultions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor proposed lap splice length is acceptable only at locations where the conflict exists.

SHIMM000-0265	**BGP Embedded Conduits in Mat Slab for the Light Column**	**Closed**	**07/24/2013**	**08/03/2013**	**08/02/2013**	**Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference attached drawing E1-2205 and E1-4105.

Per the attached lighting plan drawings, there are no electrical conduits shown to be embedded exclusively for the Light Column on drawing S1-6005.

Please confirm that there are no conduits required for the light column in both the concourse slab and mat slab or provide the location, route and size of the conduit at each level.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No, there are no embedded conduits required in lower concourse slab or mat slab.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0266	**BGP - Temporary Perimeter Lighting**	**Open**	**07/24/2013**	**08/03/2013**	**07/30/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Per the TG06.0 pre bid Q&A TG06.0-0036 response dated 6/11/12 (attached), the temporary perimeter lighting drawings are to be issued to the trade subcontractor prior to the start of the work. When is this work scheduled to begin? Are the drawings and specifications for the perimeter lighting available?

Please provide the required documents or clarify when they will be provided.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SCCI to produce and provide all information including, but not limited to, product data and layout drawings necessary for installing and maintaining temporary lighting along the perimeter of the site at 50'-0" O.C. and installed in such a manner that it does not interfere with the structure and at all walkways utilized by the workers and the public, as required to provide code-minimum lighting at egress paths, as well as sufficient foot candle lighting levels to safely perform the work at all times.
SCCI is responsible for maintaining the temporary lighting and related facilities until completion of the work.

SHIMM000-0267	**BGP - Mat Slab Conduits**	**Closed**	**07/24/2013**	**08/03/2013**	**08/13/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: A1-9204, E1-6001

The electrical conduit details on sheet A1-9204/Detail 1 and Detail 5 on E1-6001 regarding the electrical conduits on the columns are in conflict. Detail 1 on A1 -9204 indicates an embedded junction box in the long portions of the columns at Line D.8 above the Train Platform Level. Detail 5 on E1- 6001 indicates all conduits are to be stubbed up 12" at the face of the column. This Detail 5 shows all conduits (shown dashed) above the 12" stub up in the Mat Slab are to be installed in future phases outside of the TG06.0 contract. The columns are part of the TG06.0 scope.

1. Please clarify if these junction boxes and conduit are to be embedded in the columns or stubbed up through the slab at the face of each column at all four (4) locations..

2. If the conduits and boxes are to be embedded in the columns please provide a revised embedded conduit detail indicating conduits as part of TG06 Below Grade Scope.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The embedded junction box details on A1-9204 applies only to the flat surfaces (north and south sides) of the columns along GL D.8 of Platform 2 (refer to note on details 1 & 2 on A1-9204) and shall have embedded boxes and conduits. Locate the conduit and boxes such that the device faceplates will be finished flush to the finished column cladding.

The east and west sides of the columns indicated on the note shall have surface mounted junction boxes and conduits (refer to detail 1 on A1-9204).

For all other columns in the BGP, the junction boxes and conduits are typically surface mounted (refer to detail 5 of E1-6001).

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SHIMM000-0268	**BGP - Column and Reshoring Struts Conflict**	**Closed**	**07/26/2013**	**08/05/2013**	**09/20/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference: Attached Drawings

The highlighted areas on the attached re-shoring drawings show re-shoring struts against some of the oval shaped columns. In order to construct the concrete columns SCCI will need at least 30" of clearance between the column face and the struts.

Please confirm that the reshoring struts will be moved enough to provide needed clearance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Further review and coordination of specific struts that are in conflict or in close proximity to formwork is required. Please submit as-built of all locations that are in concern.

SHIMM000-0269	**BGP - 1st Street 48" Bridge Pile Asbuilts**	**Open**	**07/25/2013**	**08/04/2013**	**07/31/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference: Drawing S1-3003

48" temporary bridge piles (00 1 through 010 in the drawing attached) under the 1st Street temporary bridge exceed the 48" diameter required per Detail 6 on Plan Sheet S 1-3003. The varying diameter of each temporary bridge pile is the result of the pile being a 48" CIDH concrete pile instead of a steel pile like the rest of the slab penetrations. As typical of a CIDH pile, the surface profile varies much greater than the 1 /2" gap tolerance required per Detail 6 on S 1-3003. Attached is an as built of the 48" piles with their varying diameters. In consequence the penetration sleeves will not fit the current conditions of the 48" piles.

Please advise how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBI's temporary bridge detail drawing SH-5101, depicts the CIDH pile diameter at 48". Our review of the the Caltrans specification on CIDH piles indicate no reference to tolerances; therefore, we cannot ascertain any diameter larger than 48". SCCI to proceed as shown on the BBI and contract drawings with the CIDH pile at 48" in diameter. Please note, SCCI has ten (10) sleeves fabricated and onsite. The remaining sleeves are in fabrication at this time.

SHIMM000-0270	**BGP - Clear Cover to Mat Reinforcing at CDSM Pile Encroachment**	**Closed**	**07/30/2013**	**08/09/2013**	**08/07/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Drawing S1-3201, Spec Section 03 30 20

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Encroachment into the 6" clear dimension is

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Per Section 1 on S1-3201, the mat slab reinforcing is shown with 6" of clear cover from the outside face of the concrete wall. When the outside face wall and mat foundation step in and out due to CDSM encroachment, the 6" clear dimension shown on 1/S1-3201 will be encroached upon.

Please confirm this is acceptable. This would apply in any area where the wall thickness is being reduced due to encroaching CDSM Pile.

acceptable as long as mat rebar does not conflict with the foundation wall vertical reinforcement at the outer face. To avoid this conflict, clear dimension between the mat slab reinforcing and outer face of the concrete wall shall not be less than 4". For future reference, note that the condition at the embedded columns within the foundation walls is different. That condition is illustrated in detail 1/S1-3302 of the construction drawings and the question included in this RFI does not cover that condition.

SHIMM000-0272 **bgp - Pin Pile Encroachment** **Accepted** **08/23/2013** **09/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached photo.

Pin pile No. 6 is encroaching into the future RCW. This RCW is not part of TG06 package, but the form savers fo rfuture walls are. With the pin pile in the way SCCI will not be able to install form savers in the area of encroachment.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0274 **BGP - Rebracing Conflict RKB 15** **Open** **08/15/2013** **08/25/2013** **08/15/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference: PSK-2022, Spec Section 22 13 01

Please see attached.

After performed layout of the drainage system in the mechanical room SCCI has discovered that the reshoring raker base plate ofRKB#15 lands over the floor cleanout. Top of floor cleanout is supposed to be set to FFE (EL -

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference: Attached RFI# PBA-172

Please see the internal RFI response from PB&A that allows the rakers to move as noted in the RFI.

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35.42) which is 3" above the top of mat slab. Floor cleanout at this location will be protruding into the raker's base plate.

Please advise on how to proceed on this matter.

SHIMM000-0275 **BGP - Rebracing Conflict RKB 16** **Open** **08/15/2013** **08/25/2013** **08/15/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference: PSK-2022, Spec Section 22 13 01

Please see attached.

After performed layout of the drainage system in the mechanical room SCCI has discovered that the reshoring raker base plate ofRKB#l6 lands over the floor drain. Top of floor drain is supposed to be set to FFE (EL -35.42) which is 3" above the top of mat slab. Floor cleanout at this location will be protruding into the raker's base plate.

Please advise on how to proceed on this matter.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference: RFI# PBA-172

Please see the internal RFI response from PB&A that allows the raker to move as noted in the RFI.

SHIMM000-0279 **Placing Protection Slab on Sloped Surfaces of Pits** **Open** **08/21/2013** **08/21/2013** **08/21/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please reference attached sketch SK-PSOOI.

Due to quality and constructability concerns of placing a 4" thick slab on the 45-degree plane of the pits, installed on waterproofing membrane, SCCI is proposing the option to pour the sloped plane of the pits with the mat slab. In order to provide protection from pit reinforcing steel, SCCI will place the protection slab in the bottom of the pit, 12" up the sloped plane on all sides, and the horizontal placement will stop at the top edge of the pit.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed option is unacceptable. Without any protection on the sloped surfaces of the pits, iron workers may damage the waterproofing. Furthermore, once the rebar is installed it is very difficult to go inside these cages and perform an inspection on the waterproofing.

Other means and method options for SCCI to consider, include but not limited to:

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Per the Grace waterproofing requi rement that tbe membrane not be left exposed for more than 56 days al\er installation, SCCI will ensure that the membrane never exceeds the 56-day exposure limit.

Please confirm this option is acceptable?

1. Installing #3 rebars at 18" o.c. each way similar to what was done in the mud slab.
2. Use smaller aggregate 1/2" instead 1".
3. Install top and bottom protection slab first and then pour this sloped surface after.
4. Try to pour concrete similar fashion it was poured at the steep pit mud slab. You may need to add more dobe's horizontally to allow the concrete to adhere to 1 1/2" space between bars and waterproofing. Rebar is more stronger than wire mesh for someone to climb up onto the surface.

SHIMM000-0282 **Temporary Power from Skids #3 and #4** **Open** **08/14/2013** **08/24/2013** **08/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor/Obayashi Joint Ventu Spencer Sayles **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

SCCI and Bass had planned to used Temporary Power "skids #3 & #4 for temporary power needs. Currently Skids #3 & #4 are not available and have been removed and are unavailable. Will these skids be up and running in time fto use for temporary power? If not, where should SCCI and BAss route temporary power from? Serving the projects temporary power needs from Skids #1 and #2 is not feasible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to Drawing SL-001 of Exhibit A.

Temporary power skids 3 & 4 are not represented in any of trade group package TG06 contract documents. As indicated in trade group package TG06 Exhibit A, SCCI is required to tie into the "nearest" power source; furthermore, the Site Logistics Plan drawing SL-001 show the location of three (3) skids (Skid 1, 2 and 5) to tie into. Servicing the projects temporary power needs is a means and methods by SCCI. Overcoming distance and circuitry limitations, include but not limited to, increasing the load capacity to each zone and/or using available Skid 5.

SHIMM000-0283 **BGP - Moment and Spandrel Beams 180 Degree Hooks Versus 135 Degree Hooks** **Accepted** **08/26/2013** **09/06/2013** **08/30/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

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See attached Gerdau's RFI#068, S1-3600, S1-3410

At the contractor's option, Gerdau is requesting to change the 135 degree hooks on the Moment Frame and the Sprandrel Beam sstirrups to 180 degree hooks. Please confirm this is acceptable.

Contractors proposal to replace the 135 degree hooks with 180 degree hooks on the Lower Concourse Moment Frame Beam and Spandrel Beam Perimeter Stirrups is acceptable.

SHIMM000-0284 **REBAR - Configuration at Moment Beam** **Closed** **08/13/2013** **08/23/2013** **08/13/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

See attached Gerdau's RFI #066

Withing all of the Moment Frame Beam Sections found in the structural drawings, the T9 ties are depicted alternating. Gerdau is proposing to install the T9 ties within the Moment Frame Beams with all the 90 degree hoods at the bottom rather than alternating.

During the installation of the mock up, it was evident that the process of hooking the 135 degree hook around the bars at the bottom of the beam was problem due to the limited clearance (1.5") and the depth of the 135 hook (4.5"). By eliminating the alternating ends and only installing the 90 degree hook end down, it would resolve this situation.

Please confirm that this configuration is acceptable withing the Moment Frame Beams.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per meeting between TT, WOJV and SCCI on 08/08/2013, TT rejected the non-alternating configuration per code.

SHIMM000-0287 **BGP - North Shear Wall Concrete Mix** **Accepted** **08/21/2013** **08/31/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached drawing regarding the North shear wall. Due to the monolithic pours at the intersection of the shear wall, foundation wall and mat slab chamfer, there will be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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differentiating concrete mix uses. The attached drawing assigns the portions of this intersection with its corresponding concrete mix.

Please verify the use of these concrete mixes at this location as acceptable.

SHIMM000-0290 **BGP - Couplers for Future Construction** **Accepted** **08/19/2013** **08/29/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Reference drawings: S1-3001, S1-3206

See attached photo of the form savers that are going to be used for the couplers for future construction as depicted on Detail 4 of S1-3206, and Detail 6 of S1-3001. SCCI believes that Detail 6 on S1-3001 is not applicable due to the following:
1. As shown on the attached photo, epoxy coated form savers have tin cap incorporated into coupler's body. This tin cap will protect the rebar until the future construction.
2. Whatever tar intended to be used with form savers is not compatible with the Grace waterproofing.
3. Detail 6 on S1-3001 is a detail for the slabs, where future walls are to be constructed.

SCCI proposes to install the couplers for future construction as shown on Det. 4 S1-3206 with form savers set against the waterproofing membrane. Care shall be taken to ensure that waterproofing is not damaged.

Is this acceptable?

SHIMM000-0291 **BGP - FF&FL Values for Mat Slab and Concourse Slab** **Accepted** **08/23/2013** **09/03/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Don Muns **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1. Please confirm the contract documetns (TG06.0) do not specify a FF value for the Mat Slab.

2. Also, please reference ACI 302.1R and contract specification 033020.3.6.B. ACI 302.1R does not provide any recommendations on F-numbers for broomed surfaces. Furthermore, table 8.15.3.b of ACI 302.1R (page 46) demonstrates to achieve FF value of 20 for a slab on grade, it must be a smooth, floated surface.

Please clarify if the designer intends to have a rough broom/rake finish, or intends to have the concourse slab finished to a value of 20.

3. Please confirm the concrete finish within the train box

SHIMM000-0292.1 **Cast-In-Place Concrete - FF & FL Values for Concourse Slab** **Open** **10/02/2013** **10/12/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor/Obayashi Joint Ventu Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

This RFI is being submitted in resposne to RFI response T-0691. Please refernce TG0600 contract specificaiton section 033020.3.6.B. Section 3.6.B specifies a FF value of 20 for the surface of the lower concourse slab.

Table 8.15.3b of ACI 302.1R (page 46) statres that to achieve a surface with an FF value of 20, it must be a smooth floated surface. ACI 302.1R does not provide any recommendations of "F" numbers for broomed surfaces.

Please clarifiy if th edesigner intends to have a rough broom/rake finish, or intends to have the concourse slab finished to a FF value of 20.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0293 **BGP - ASI-104 Electrical Clarifications** **Closed** **08/22/2013** **09/01/2013** **08/22/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Note B on the SKE-01-3201, SKE-01-3202, & SKE-02-320l(from RFI T-0633 response) indicate that all electrical equipment shown in halftone is to be included in the later phase 2 construction (outside of TG06.0 scope). With that, there is extensive electrical equipment (switch gear, panels, etc) that are shown in full tone on the drawings. Please clarify whether or not this electrical equipment is to be
furnished and installed under the TG06.0 scope of work. Additionally, if it is required, please provide the specifications pertinent to the required equipment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All termination points, conduits and boxes shall be clearly identified and labeled for future connections to be performed by other trade subcontractors for the electrical equipment shown. All Electrical equipment shown in the attached sketches are excluded from trade package group TG06.0 and will be included in the phase 2 construction as noted..

SHIMM000-0294 **BGP - Rebar Configuration at Moment Beam with Incorporation of S-3 vs T-9 Ties** **Accepted** **08/23/2013** **09/03/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Please find attached Gerdau's RFI#70.

At the contractor's option, Gerdau would like to propose utilizing S-3 stirrups with only one T-9 tie (see attached sketch) for the vertical ties in the moment frame beam. This will be installed in lieu of installation all T-9 ties. This is done to avoid the constructability issues associated with alternating the hooks under the 1.5" of clear cover beneath the bottom beam bars.

Please confirm that the proposed reinforcing configuration is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0296 **BGP - Drain Line and Micro Pile Conflict at K.5 5.5** **Accepted** **08/22/2013** **08/30/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached photo and CD PI-2030.

After performed layout of the drainage line system around

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

GL K5 SCCI has discovered that a row of micro piles is in conflict with the 4" cast iron pipe drain line. SCCI suggest shifting the drain line run to clear the micro piles.

Is this acceptable?

SHIMM000-0297 **BGP - Drain Line conflict with reinforcement at GL K3** **Accepted** **08/22/2013** **08/30/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attached photos and CD P 1-2030.

Tails of the bottom rebar mat at the drainage pit are interfering with the construction of drainage lines and catch basin. SCCI proposes following:
1. Shift the catch basin to where it clears the reinforcement tails.
2. Cut the rebar tails to allow installation of the drainage lines and the catch basin.

Please advise.

SHIMM000-0298 **Additional Rebar Conflict for Plumbing Trim at GL2/D.4** **Accepted** **08/23/2013** **09/03/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Due to the density or the typical N-S top mat bars (#10) and additional bars (#11) near the elevator pit at Gridlines 2 and D.4, the additional trim rebar per 1/S1-3501 for interrupting the bars over the plumbing opening cannot be installed to the East of the plumbing opening within 3" of the opening. The alternative solution would be to install the additional steel in a new layer below the top mat; however, due to proximity of the piping to the steel the bars cannot be placed below the top mat. Gerdau proposes the folloing options:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

A. Omit the additional trim bars to the East of the trimmed opening.
B. Relocate the additional trim bars approximately 3'-0" East of the opening where the rebar spacing would allow for additional steel.

Please advise if proposed options are acceptable.
(see attached SKS-1)

SHIMM000-0299 **BGP - Additional Rebar Conflict for Floor Sink Trim GL B.7/2.7** **Accepted** **08/23/2013** **09/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attached Gerdau's RFI#72

Due to the density of the typical N-S top mat bars (#10), additional N-S top mat bars (#11) and pin pile trim steel (#11 with lap splices directly over floor sink) near the floor sink at Gridlines 2.7 and B.7, the additional trim rebar per 1/S1-3501 for interrupting the bars over the plumbing opening cannot be installed on either side of the plumbing opening. The alternative solution would be to install the additional steel in a new layer below the top mat; however, due to the proximity of the plumbing piping to the steel the additional bars cannot be placed below the top mat. Also, the additional bar to the East of the opening would conflict with the pin pile. Gerdau proposes to cut top mat bars to allow for the floor sink installation and omit the additional trim bars.

Please advise if the proposed solution is acceptable.

SHIMM000-0300 **BGP - Glass Guard Rail Attachment by Others Clarification** **Open** **09/12/2013** **09/26/2013** **09/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Refer to drawing S1-3410.

Confirmed. Tabs will be included in the scope for that

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please reference attached detail 7, S1-3410. Please confirm SCCI is to provide 3/8x7xcontinuous plate only, and no tthe tabs shown at 5'-0" OC.

"future" contractor, when that connection of the glass guardrail is finalized in Phase 2 per coordination with the preconstruction team.

SHIMM000-0301 **BGP - Vehicle/Bike Beam End Suppoert Embed** **Accepted** **08/27/2013** **09/09/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Please reference attached drawing S1-3411 .

Detail I calls for a W'x4"x 18" embed plate at the toe of the corbel. 1D/S1-3411 details this embed and shows it as 24" rather than 18".

Please clarify the correct dimensions for this embed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0302 **BGP - Catch Basin Requirements** **Accepted** **08/27/2013** **09/06/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached page from DBI's standard catch basin detail, and reference drawings P1-6001 and P1-2022 thru 2030.

On 08/26/2013 during pressure testing inspection of the drainage lines in mat slab areas 1 and 2, DBI Plumbing Inspector has pointed out that all catch basins in the mat slab should be constructed per attached detail.

Contract drawings do not show catch basins details with cleanouts, vents and trap primer connections. Constructing the catch basins per attached sheets constitutes a compensable change.

Please provide details and direction for construction of the catch basins.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0303	**BGP - Chamfer Bar Top Hook**	**Closed**	**08/29/2013**	**09/08/2013**	**08/29/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached Gerdau's RFI#74.
See attached SKS-74

In an effor to prevent the chamfer bar from encroaching on the existing shoring waler beams, Gerdau would like to propose over bending the top hook and turning it into a standard 180 degree hook as shown on the attached sketch.

Please advise if this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed 180 degree hook for the chamfer bars that are in conflict with double shoring walers is acceptable for bars that have not been fabricated. The radius point for the bend shall remain located as originally detailed on 1/S1-3201.

SHIMM000-0304	**BGP - Drainage Conflicts with Reinforcement**	**Accepted**	**08/29/2013**	**09/08/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached marked up contract drawings PSK-2022 and S1-3005

Some of the drainage lines and fixtures are designed to be constructed in close proximity of the concrete columns, similarly S1-3005 depicts typicall mat shar reinforcement schedule and details. Some of these shear reinforcement bars will be interfering with the drainage lines and fixtures. SCCI suggest to displace these shear reinforcement bars where conflicts occur. Displacement would occur lateraly, in 8" increments, governed by the grid of the mat slab main reinforcement bars.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0305	**BGP - Haunch Reinforcement at Double Waler Condition**	**Closed**	**08/29/2013**	**09/08/2013**	**09/02/2013**	**Potentially**	☐

From: Shimmick Construction Company, Inc John Berggren **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Gerdau RFI No. 075 dated August 29th, 2013

This RFI is to confirm the resolution as proposed in the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The revised haunch reinforcement clear cover as described in the RFI per field coordination is confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

field. At the double shoring waler condition, where the waler web is lower that that of a single waler, the tail of the #10@8" (10C262 on BM-3t) haunch reinforcement interferes with the web of the shoring waler. The condition was observed at Grid 2/ A and will likely repeat at other double waler locations. The resolution to the condition shall be to adjust the position, where required, so that the interfering tail clears the double waler web. As a result the 1-1/2" clear cover will deviate up to 4-112" of clear cover. The plan loaction of the tail shall remain as close as possible per the placement drawings. See the attached sketch for further details. The 1-1/2" clear spacing shall remain at locations unaffected by the reduced clearance of the double-wlaer. For pieces not yet fabricated and delieverd, Gerdau has submitted in [Gerdau] RFI #074 {SCCI #303} a proposed solution to conform to the 1-1/2" clear cover.

Is this confirming RFI accurate and acceptable?

SHIMM000-0307 **BGP - Jitter Bug Finish on Mat Slab Surface** **Accepted** **09/03/2013** **09/13/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Reference Spec Section 033020.3.6.B.l.c.
See attached photos for a visual reference.

Please reference TG06.0, BGP contract specifications 033020.3.6.B.l.c. SCCI is proposing to finish the top surface of the Mat foundation Slab, as a "Jitter Bug" finish. All other finishing requirements will remain the same.

Is this acceptable?

SHIMM000-0308 **BGP - Haunch Reinforcement Atlernative Detail** **Accepted** **08/30/2013** **09/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Drawing: S1 -3201
Reference Spec: 03 20 00
Attached Gerdau Sketch: SKS-76.1, SKS-76.2, SKS-76.3

A portion of the #10 @ 8" haunch bars cannot be installed as fabricated due to conflicts with overhead obstructions (shoring walers and struts) and the dewatering well sleeves. Per discussions with Sean McNeil where bars cannot be installed due to the obstructions, a modified #1 0 haunch bar with an HRC 555 head can be installed in place ofthe typical haunch bar. The attached sketches (SKS-76.1 and SKS-76.2) depict the magnitude ofthe obstructions at the dewatering wells in Area 3.

Please confirm if this is acceptable.

Additionally, please provide the required embedment length for the headed tail of the modified haunch bar.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0308.1 **BGP - Haunch Reinforcement Alternative Detail** **Accepted** **09/03/2013** **09/13/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Ben Gordon **Answered By:**

Co-Author:

REQUEST:

See attached Gerdau's RFI #79.

The RFI Response to RFI T -0702 stated that the 180 degree hook chamfer bars are acceptable where the bars conflict with the double shoring walers. The intent of the RFI was to request the use of the 180- degree hook for the chamfer bars throughout the structure regardless of whether or not the bars were below a double or single walers.

Please confirm that this is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0309 **BGP - Mat Slab Added Steel Interference** **Accepted** **08/31/2013** **09/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Drawing S1-3003 and Spec Section 03 20 00
See attached Gerdau Sketch SK-77, BM-3b, BM-3t

Due to the location of select trestle and pin piles, the #9@16" (bottom mat) and #11@16" (top mat) added North-South layer reinforcement cannot be installed at the desired spacing. The proposed solution is to cut the added #9 or #11 bars, where interrupted by a pile, and add a hook of equal size or greater (#11 hook max) with a lap splice similar to the hooks used for the trestle and pin pile trim steel.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0310 **BGP - Area 3- Partition Wall Pier Rebar Conflict With Plumbing Near GL3/C.3** **Closed** **09/03/2013** **09/13/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached Gerdau's RFI #078.

Near Gridlines 3/C.3, there is a conflict between the partition wall pier dowels and the installed 6" pluming pipe (8" with insulation). The wall pier currently overlaps with the plumbing pipe by approximately 6". Gerdau proposes to move the wall pier to the East, or West to allow the dowels to clear the pipe.

Please provide the acceptable direction (East or West) to shift the wall pier.

Please note that there are conduits stub up on the East side that would need to be moved, should the opening is shifted towards the East.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0311 **BGP - Couplers for Future Walls** **Accepted** **09/03/2013** **09/13/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Det. 6 on S1-3001
See attached photo of the form savers that are going to be used as couplers for future walls.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0312 **NW Corner Wall intersection Horizontal and Haunch - Area 3** **Closed** **09/04/2013** **09/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Reference Drawing: 3/S 1-3001
Reference Spec: 03 20 00

Per field coordination with the on-site structural engineer the following conditions are to be confirmed as acceptable:

1. In the Northwest comer of Area 3, comer bars matching the size, spacing and lap splices of typical horizontal reinforcing are installed in-lieu ofbent typical horizontal bars. See Bar A in sketch FC-1

2. In-lieu of hooked haunch horizontal bars, straight bars of the same size have been installed with the required embedment. See Bar B in sketch FC-1.

3. At the intersection of the North and West haunch bars, the haunch bars along the North (Bar D) wall have been trimmed at the approximate intersection with the West (Bar C) haunch bars. Reference sketch FC-2. The observed condition is acceptable, but at future locations within the intersection of two haunches the detail for BarE will be used unless BarD already has 42" of embedment.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0313 **BGP - Haunch Reinforcing Intersection with Dewatering Wells** **Closed** **09/04/2013** **09/04/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference drawing: 1/S1-3201
Reference spec: 03 20 00

Per field coordination with the on-site structural engineer the following conditions are to be confirmed as acceptable:

1. In Area 3 along Gridline A, the haunch bars have been trimmed at the approximate intersections with the bottom mat. See sketch FC-3

2. In Area 3 along Gridline 1, (2) haunch bas have been trimmed at the approximate intersection with the top mat with no embedment. See sketch FC-4.

At future locations where dewatering wells interrupt haunch bars, use detail for bar E in sketches FC-3 or FC-4 if the haunch bars do not have 42" of embedment into the mat slab.

SHIMM000-0315 **BGP - Extended Time for Concrete Delivery - Protection Slab** **Open** **09/10/2013** **09/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Cemex has performed the set time test to evaluate the time at which the onset of hydration occurs for mix #1557217 (Protection Slab Mix).

For the mix referenced herein, is it acceptable to extend the concrete delivery time to (2) hours?

SHIMM000-0316 **BGP - Column Shear Rinforcement and Bump-Out Pile Interference** **Accepted** **09/10/2013** **09/20/2013** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Bob Garcia **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Please refer to attached drawing S1-2024 (dated 11/27/12), S1-3005 and attached sketch SK-SCCI 316.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per field measurements, the 36" bump out trestle pile near gridlines F.7/15 interfere with the nearby column shear reinforcement at gridlines G/15.

Due to the size of trestle pile, the adjustment of the shear head locations, as provided in RFI T-0703, cannot be achieved . Please provide direction on how to proceed.

SHIMM000-0317 **BGP - Trim Steel Requirements for Mat Slab** **Open** **09/10/2013** **09/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Per field instructions, to help alleviate congestion in the mat reinforcing, and in particular, congestion resulting from add bars due to openings and penetrations, please confirm the following:

1. Details 4 and 7 on Sheet S1-3009 in so far as they apply to trestle piles, pin piles, dewatering wells and piezometric pipes can be relaxed in terms of additional bars. For an even number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars)/2. For an odd number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars +1)/2.
2. Detail 1 on Sheet S1-3501, which applies to sinks, can be relaxed in terms of additional bars. For an even number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars)/2. For an odd number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars +1)/2. The minimum requirement of 2 bars on either side of the opening need not apply.
3. The number of bars and maintenance of clear spacing will take precedence over 8¿ or 4¿ module spacing as to minimize the number of potential bar interruptions (and minimize resulting add bars). Any bar may be displaced to avoid conflict. The maximum center-to-center spacing of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

any two adjacent bars may be as large as 16¿. Clear spacing of 1 bar diameter shall be maintained between bars where bar relocation necessarily reduces spacing in the vicinity of relocation. Where bar relocation affects a lap splice, noncontact lap splices will be allowed up to 6¿ for #10 and #11 bars. This remedy shall apply in particular when seeking to avoid interruptions at small penetrations such as risers, vents, sinks and conduits.
4. Clear spacing of 1db minimum shall be maintained in all mat reinforcing except for contact lap splices.5. Measures to reduce congestion at other locations such as catch basins, sump pits, elevator pits, shoring bracing and bridge piers will be considered on a case-by-case basis during field coordination with Thornton Tomasetti¿s field representative.

SHIMM000-0318 **BGP - Mat Slab CJ Layout Areas 2/4, 6** **Accepted** **09/10/2013** **09/20/2013** **09/10/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please reference the attached CJ layout drawing, CJ-04, regarding the proposed CJ layout for Areas 2/4 and Area 6. These changes are to eliminate conflict with diagonal pit rebar as well as micro piles. Please verify that these changes are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The requested approval must be submitted via submittal process. Please re-send using the next submittal package designated for this shop drawing: Submittal TG0600-0030.3 and item number 033000-030.3.

SHIMM000-0320 **BGP - Sump Pump Conduit Terminations Between Grid Lines 1 & 12** **Open** **09/12/2013** **09/22/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Per Detail 7 on plan sheet E1-6001, sump pump conduits for the below grade package are to be terminated 12" above the mat slab directly adjacent to the future train platform wall. With the train platform wall beginning at grid line 12 and moving east, where are the conduit terminations for the sumps to be installed west of grid line

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

12 where there is not a train platform? Is there a set dimenion the conduit should be set away from the sump when the train platform is not present? Please advise. Please note that for the two sumps that have been poured

in Area 3, the conduits were placed roughly 9' to the north of each sump opening to avoid the future train tracks. There are 8 total sumps west of grid line 12 with 6 ofthem left to be placed.

SHIMM000-0321 **BGP - Pit Detail Near Grid E/34.5** **Open** **09/17/2013** **09/27/2013** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Bob Garcia **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

The bridge pier pile (4'-0" diameter) near grid E/34.5 is shown in SI-2057 to be offset from the typical row ofpiles show along gridline 34.7. In addition, detaill /SI-3007 depicts the pile being located within the pit that is located at gridline E/34.5. Based on field observations, it appears that the pile in question has been installed in line with the other piles on gridline 34.7 which could possibly result in the pile being outside of the pit.

Please confirm if the pile is located within the pit as shown in S12057 and 1/SI-3007. If not, then please provide an alternative detail to 1/SI-3007.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0322 **BGP - Mat slab, Grade 75 #11 Reinforcing** **Open** **09/17/2013** **09/27/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Due to mill shortages of grade 75 #10 reinforcing please confirm that at no cost to the Owner the implementation of grade 75 #11 reinforcing where required will be acceptable for use within the typical mat reinforcing installed at 8" O.C.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The use of the grade 75 # 11 rebar is expected to supplement the typical #1 0 bar in the following locations, 3rd and 4th layer of Area 6, and 4th layer of Area 7.

SHIMM000-0323 **BGP - Column C16 and Knock-Out Corbel - West Throat** **Open** **09/17/2013** **09/27/2013** **09/18/2013** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Bob Garcia **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per previous discussion with TT field engineer, in the West throat shearwalls which contain integrated Cl6 columns and vertical corbels to restrain the knock-out walls, only the Cl6 column ties are required to penetrate the mat at the designated spacing for a distance of at least 12" below the lowest top mat elevation. The ties associated with the corbel are not required to penetrate the mat slab. This RFI confirms that the column and corbel ties, as placed, are acceptable based on the observation by the TT field engineer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
Column C16 is a boundary element in the West Throat Shearwall. Integral to the column (and the wall) is a vertical corbel that restrains the knock-out wall. Ties are indicated for both the column and the corbel. Only the column ties are required to penetrate the mat at the designated spacing for a distance of at least 12¿ below the lowest top mat elevation. The ties associated with the vertical corbel are not.

As the corbel ties are not required below the mat, the corbel ties observed in the field are necessarily confirmed as acceptable.

The column ties, which are required to penetrate the mat, shall be placed per the contract drawings. This RFI response does NOT confirm the placement or spacing of the column ties observed in the field.

SHIMM000-0324 **BGP - Area 1- Confirming RFI- Knock Out Corbel and Haunch at SW Corner** **Closed** **09/17/2013** **09/27/2013** **09/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per field coordination with TT field engineer, please confirm it is acceptable to omit the pilaster ties of Detail 2/S1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3204 within the body of the haunch provided that:
¿ The pilaster West corner bar (Bar A in attached photo) is tied with 135 hooks in both directions
¿ Ties shall be #4 bars spaced at 4" o.c.
¿ The tie perpendicular to the South wall shall be developed a minimum of 14" into the South wall beyond the
haunch.
¿ The tie parallel to the South wall shall be hooked around the pilaster East corner bar (Bar B in attached photo).
¿ In lieu of two individual ties, it is also acceptable to combine the ties into a single shape with a 90 degree bend
at Bar A.
¿ The extent of the ties shall be from the top of the mat to the top of the haunch, after which Detail 2/S1-3204 will resume.
¿ The horizontal haunch bars shall terminate with a spliced matching hook.
¿ The horizontal formsaver bars for the future train tunnel shall be #7 @ 6" O.C. on the inside and outside face of the 3'-0" foundation wall.

The pilaster detailing as described in the RFI is acceptable within the body of the haunch.

SHIMM000-0325 **BGP - Area 6 CJ Layout Modifications** **Open** **09/18/2013** **09/28/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attached photos of the construction joint at mat slab area 6 South, near grid line 8.5, and CJ layout drawings.

Due to congestion and access SCCI would like to shift the walls and concourse joints at this location 14.5"' to the East. This adjustment does not affect any other structure's elements and complies with the CJ parameters outlined in the contract specifications.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0327 **BGP - Area 6 East Bulkhead and Catch Basin Conflic** **Open** **09/20/2013** **09/30/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

See attachments.

SCCI had to shift the construction joint between mat slab areas 6 and 7 Eastward due to the interference with the micropiles and trestle piles. THis shif i nt ht eCJ puts the bulkhead against the catch basin near GL G11.

in order to mitigate this conflict SCCI propose shifting the catch basin location 24" +/- (in East/Wet direction), on either side of the bulkhead/CJ.

Is this acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0328 **BGP - Structural Slurry Primer in Mat Slab** **Open** **09/24/2013** **10/04/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Please refer to the attached letter, authored by Rober Foley (CEMEX QC), dated September 17, 2013.

With limited site access, many Mat Slab pours will require a larger than normal amount of slick-line. To ensure that no slick-line gets plugged, SCCI is proposing to prime the slick-line with a structural slurry that will reach and exceed the specified design strength for the Mat Slab. A miniscule percentage of this primer will be deposited into the mat slab. This percentage would amount to .01 to .02 percent by volume.

Please confirm the proposed SCCI method of slick-line priming is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0329 **BGP - Internal Bracing Level D Removal** **Open** **09/24/2013** **10/10/2013** **09/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Shimmick Construction Co Filip Filipic

Co-Author:

REQUEST:

Compiled concrete maturity data and break results from

SUGGESTION:

ANSWER:

Per email...

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

teh first mat slab pour show that after two weeks mat slab reaches between 4.5 and 5 KSI, this is approximeateley the end of the thermal control fo rthe mass concrete, as well.

SCCI requests design team to allow TG03 Trade Contractor to remove level Dinterior bracing when mat slab concrete reaches 4.5 KSI.

Is this acceptable.

Spencer,

We're retracting SCCI RFI # 329.
Concrete maturity data from the mat slabs will be available for everyones use and interpretation.
Changing the terms/specifications/scope of bracing removal is for WOJV/BBII/Designer coordination.

For the benefit of the Projects progress I suggest pursuing the concept of our, now voided, RFI 329 and Ryan's e-mail below.

If you have any questions, please let me know.

Regards,

Filip Filipic

SHIMM000-0330 **BGP - Haunch Bar Grade and Size Increase** **Open** **09/25/2013** **10/05/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST:

Please confirm if it is acceptable to utilize Grade 75 #10 or #11 rebar in-lieu of the Grade 60 #10 rebar for the 3'-0" haunch.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0331 **BGP - Geothermal Fields 11, 12, & 13 Layout in Zone 4** **Closed** **09/30/2013** **10/10/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor/Obayashi Joint Ventu Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Attached are the two proposal drawings fo rthe geothermal layout in zone 4. Please confirm which layout is acceptable, Option #! or Option #2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0332	**BGP - Mat Slab Construction Joint Between Area 2 and Area 4**	**Closed**	**10/01/2013**	**10/11/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor/Obayashi Joint Ventu Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference TG0600-30.2 Submittal.

As discussed in the prior progress meetings, SCCI plans to combine slab pours S102 and S104 into one pour without bulkhead forms in between. Is this acceptable?

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0333	**Loc. of Electrical Equipment and boxes for Elec. Room B2560**	**Open**	**10/02/2013**	**10/02/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please find attached the revised layout for Electrical Room B2560 in Mat Slab Area 8. Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0333.1	**Loc. of Electrical Equipment and Boxes for Elec. Room B2560**	**Open**	**10/28/2013**	**11/07/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference RFI #T-0782, drawing El-2025, Al-2105, and Spec Section 26 05 34.

RFI #T -0782 response proposes layout for electrical equipment and box layout in Electrical Room B2560 - Area I 0 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0333.2	**BGP - Loc. of Electrical Equipment and Boxes for Elec. Room B2560**	**Closed**	**11/25/2013**	**11/25/2013**		**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

The response to RFI 0782.1 stated that the walls in the attached CAD layout were not properly coordinated and

SUGGESTION:

ANSWER:

The layout provided appears to be satisfactory; however, the final layout should be coordinated with

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

included an AAI mark-up. Per 1/A1-9225 which was provided in the response to RFI T-0899, the walls between the mat slab and conccouse level are knee walls with a 4" lip. As shown and laid out, the knee wall lip will be 4 3/8" on three sides and 4 3/4" on the wall nearest to GL 19.9. This area will be included in the pour on 12/07/2013 and the form savers and conduits ha ve already been installed, therefore any layout changes will incur additional costs.

Please confirm layout as shown is acceptable.

latest direction in RFI T-0899 and submitted via submittal shop drawing for review.

SHIMM000-0334 **Locc. of Electrical Equipment and boxes for Elec. Room B2441** **Open** **10/02/2013** **10/12/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please find attached the revised layout for Electrical Room B2441 in Mat Slab Area 9. Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0334.1 **Loc. of Electrical Equipment and Boxes for Elec. Room 82441** **Open** **10/28/2013** **11/07/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference RFI #T-0781, drawings El-2024 and Al-2104 and Spec Section 26 05 34.

RFI #T-0781 response proposes layout for electrical equipment box layout in Electrical Room B2441 - Area 09 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0334.2 **BGP - Loc. of Electrical Equipment and Boxes for Elec. Room B2441** **Closed** **11/25/2013** **12/05/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

The response to RFI 0781.1 stated that the walls in the attached CAD layout were not properly coordinated and included an AAI mark-up. The AAI mark-up shows the incorrect gridline location for Electrical Room B2640. In addition, due to the fact that the walls at this location are knee walls with a 4" lip per 1/A1-9225 that was provided to SCCI in RFI T-0899 response received on 11/15; the walls submitted in RFI T-0781.1 are indeed coordinated correctly per the sketch dimensions (AAI sketch is based on platform drawing, not mat slab drawing room which SCCI based the layout from). This area will be included in the pour on 11/23/13 and the form savers and conduits have already been installed; there any layout changes incur additional costs.

Please confirm layout as shown is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The latest layout and/or revisions to the aforementioned Electrical Room was provided in RFI T-0899 on 11/15/2013. Please submit the as-built layout as coordinated with RFI T-0899. Submit layout via submittal shop drawing package as directed in RFI T-0781.1 for review.

SHIMM000-0335 **Location of Electrical Equipment and Boxes for Electrical Room B2460** **Open** **10/02/2013** **10/12/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please find attached the revised layout for Electrical Room B2460 in Mat Slab Area 15. Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0335.1 **Loc. of Electrical Equipment and Boxes for Elec. Room B2460** **Open** **10/28/2013** **11/07/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference RFI #T-0780, drawings El-2026 and Al-2104, and Spec Section 26 05 34.

RFI #T -0780 response proposes layout for electrical equipment and box layout in Electrical Room B2460 - Area 08 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0335.2	**BGP - Loc. of Electrical Equipment and Boxes for Elec. Room B2460**	**Closed**	**11/25/2013**	**12/05/2013**	**11/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

The response to RFI 0780.1 stated that the walls in the attached CAD layout were not properly coordinated and included an AAI mark-up. The AAI mark-up shows the incorrect gridline location for Electrical Room B2640. In addition, due to the fact that the walls at this location are knee walls with a 4" lip per 1/A1-9225 that was provided to SCCI in RFI T-0899 response received on 11/15; the walls submitted in RFI T-0780.1 are indeed coordinated correctly per the sketch dimensions (AAI sketch is based on platform drawing, not mat slab drawing room which SCCI based the layout from). This area has already been poured with the form savers positioned per the CAD layout and as shown per ASI 107 Architectural drawings. Any changes in the layout of this area ill incur additional costs.

Please confirm layout as shown is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The layout provided in your RFI appears to be satisfactory; however, please submit the layout as coordinated with RFI T-0899. Submit layout via submittal shop drawing package as directed in RFI T-0780.1 for review and approval.

SHIMM000-0336	**Locations of Electrical Equipment and Boxes for Electrical Room B2461**	**Open**	**10/02/2013**	**10/12/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please find attached the revised layout for Electrical Room B2461 in Mat Slab Area 8. Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0336.1	**Loc. of Electrical Equipment and Boxes for Elec_ Room B2461**	**Open**	**10/28/2013**	**11/07/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference RFI #T-0779, drawing EI-2024, and Spec Section 26 05 34.

RFI #T - 0779 response proposes layout for electrical equipment and box layout in Electrical Room B2461 - Area 08 in CAD format. See attached.

Please confirm layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
SHIMM000-0336.2	**BGP - Loc. of Electrical Equipment and Boxes for Elec. Room B2461**	**Closed**	**11/25/2013**	**11/25/2013**	**11/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

The response to RFI 0779.1 stated that the walls in the attached CAD layout were not properly coordinated and included an AAI mark-up. The AAI mark-up shows the incorrect gridline location for Electrical Room B2640. In addition, due to the fact that the walls at this location are knee walls with a 4" lip per 1/A1-9225 that was provided to SCCI in RFI T-0899 response received on 11/15; the walls submitted in RFI T-0779.1 are indeed coordinated correctly per the sketch dimensions (AAI sketch is based on platform drawing, not mat slab drawing room which SCCI based the layout from). This area has already been poured with the form savers positioned per the CAD layout and as shown per ASI 107 Architectural drawings. Any changes in the layout of this area ill incur additional costs.

Please confirm layout as shown is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The layout provided in your RFI appears to be satisfactory; however, please submit the layout as coordinated with RFI T-0899. Submit layout via submittal shop drawing package as directed in RFI T-0779.1 for review and approval.

SHIMM000-0337	**Loc. of Electrical Equipment and boxes for Elec. Room B2640**	**Open**	**10/02/2013**	**10/12/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please find attached the revised layout for Electrical Room B2640 in Mat Slab Area 8. Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0337.2	**BGP - Loc. of Electrical Equipment and Boxes for Elec. Room B2640**	**Closed**	**11/19/2013**	**12/05/2013**	**11/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

The response to RFI 0778.1 stated that the walls in the attached CAD layout were not properly coordinated and included an AAI mark-up. The AAI mark-up shows the incorrect gridline location for Electrical Room B2640. In addition, due to the fact that the walls at this location are knee walls with a 4" lip per 1/A1-9225 that was provided to SCCI in RFI T-0899 response received on 11/15; the walls submitted in RFI T-0778.1 are indeed coordinated

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The layout provided in your RFI appears to be satisfactory; however, please submit the layout as coordinated with RFI T-0899. Submit layout via submittal shop drawing package as directed in RFI T-0778.1

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

correctly per the sketch dimensions (AAI sketch is based on platform drawing, not mat slab drawing room which SCCI based the layout from).

Please confirm layout as shown is acceptable.

SHIMM000-0338 **Clarification of Vehicle/Bike Beam End Supports** **Open** **10/02/2013** **10/12/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

This RFI is being submitted in response to RFI resonse T-0453.1. Please confirm the Vehicle/Bike Ramp end support angles. Confirm the acute angle is 56 degrees and obtuse angle is 124 degrees.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0339 **Type C31/D22 Coupler Stagger** **Open** **10/03/2013** **10/03/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Detail 1/S1-3301 requires the couplers for the adjacent column vertical bars be staggered with a vertical distance of 24" or more; however, due to the pattern and spacing of vertical bars for the type C31/D22 detailed on S1-3306, the condition cannot be met.

Attached is a sketch of a proposed pattern for the vertical bars in the type C1/D22 columns, please confirm if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0340 **Areas 5 and 6 EW Top Mat Reinforcing at South Wall Radius** **Open** **10/04/2013** **10/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Refer to the attached sketch 131003_S105-S106 South Radius.

In Areas S105 and S106, EW top mat reinforcing makes an increasingly acute angle with the south wall. This eventually prevents the reinforcing from penetrating the haunch and wall reinforcing curtains to reach the edge of the mat.

Per field coordination, it is acceptable to terminate EW top mat reinforcing in a hook prior to reaching the edge of the mat slab. The provisions are as follows:

¿ All terminating EW top mat reinforcing shall be hooked
¿ Where the angle becomes such that the mat reinforcing cannot penetrate the inner wall reinforcing. The reinforcing may terminate immediately in front of the wall reinforcing inside the haunch. This is labeled Zone 1 in the sketch.
¿ In Zone 1, single haunch bars that interfere with penetration of mat reinforcing into the haunch shall be relocated to allow penetration. Relocation will be to the nearest adjacent placement opportunity without regard to the 8" spacing module. Clear spacing, however, between haunch bars shall be maintained.
¿ The total number of haunch bars will remain unchanged.
¿ In Zone 1, provide a curved band of reinforcing at the typical size and spacing of the mat within the wall.
¿ Where the angle becomes such that the mat reinforcing cannot penetrate the haunch without relocating more than one haunch bar, reinforcing may terminate at the toe of the haunch. This is labeled Zone 2 in the sketch.
¿ In Zone 2, provide a curved band of reinforcing at the typical size and spacing of the mat within the haunch.
¿ Zone 1 and Zone 2 bands will overlap typical reinforcing by the distance LTS.

SHIMM000-0341 **Mat Slab S108 East Construction Joint Modifications** **Open** **10/08/2013** **10/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

See Attachments.

After the layout of the East construction joint in the mat slab area 8, SCCI discovered several constructability issues with the mat keyway and other project structure elements.

1. East construction joint in area 8 falls within th erow of micropiles. For this area, SCCI intends to jog the joint 12" +/- to the East to clear the mimcropile conflict.
2. CJ at area 8 East runs thru the thickened slab section at GL 1.6G.3. In this area SCCI intends to shift the joint Eastward to capture the thickened section within the area 8 pour.

Is this acceptable?

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0342 **Mat Slab S109 East Construction Joint Modifications** **Open** **10/08/2013** **10/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

See Attachments.

After the layout of the East construction joint in mat slab area 9 SCCI discovered several constructability issues with the mat keyway and other project structure elements.

SCCI proposes to install the CJ between area 9 and 10 as shown on the attached sketches.

Is this acceptable?

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0343 **Partition Wall Pilaster and Plumbing Conflict at GL C.5/4.8** **Open** **10/08/2013** **10/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

The reinforcement fo rthe partition wall pilaster at

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

approximeately GL C.5/4.8 is in conflict with the drainage pipe below. Per not 3 on detail 0/S1-9050 the ties will be installed if possible.

Two veritcal bars in teh pilaster will have to bent in ordre to clear the pipe and two others will have to be slightly displaced to clear the pipe.

See the attached sketch for details. Please confirm if this is acceptable.

SHIMM000-0344 **Haunch Hook Embedment** **Open** **10/08/2013** **10/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Perr discussions with TT Field Engineer, the embedment lengths of the haunch hooks (see RFI T-716) provided average 35", but are no less than 29", as measured from their intersection with the wall
interior reinforcing curtain. See sketch for more details. Please confirm if this is acceptable.

SHIMM000-0345 **Mat Slab S110 East Construction Joint Modificaitons** **Open** **10/08/2013** **10/18/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Filip Filipic **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attachmaents.

After th elayout of the East construciton joint in mat slab area 10 SCCI discovered several constructability issues wih the mat keyway and other project structure elements. SCCI proposed to install the CJ between area 10 and 11 as shown on the attached sketches. Is this acceptable?

SHIMM000-0346 **Follow-up and Field Adjustmetn to RFI T-0627.1 - Area 6 CDSM** **Open** **10/10/2013** **10/20/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

During field layout of CDSM encoachment in Area 6, the follwoing extend of encroachment has been moved:

-For encroachment at SP696, we have moved the East extent to SP694, this is due to SP695 encroaching during the buried bar layout. This accounts for 4' additional wall length with 33-5/8" due to CDSM encroachment.

- For encroachment at SP104, the West extent of encroachment was moved to SP102. The rebar option 1 for SK1 with #11 rebar @ 6" OC will be used from SK102 to the West Extent of WR2 at Gridline 11

Please confirm that this deviation from RFI T-0627.1 response is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0347 **Area 4 Wall Vertical Reinforcement Spacing** **Open** **10/10/2013** **10/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference: RFI T-0622 and RFI T-0622.1.

The Area 4 wall vertical reinforcement has been installed different from the layout in RFI T-0622.1.

Please confirm if the spacing of wall vertical reinforcement, as shown in the attached sketch, is acceptable. Note that the wall thicknesses remain the same as approved in RFI T-0622.1.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0348 **Area 2 Foundation Wall Vertical Spacing** **Open** **10/10/2013** **10/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

A 16ft portion of the Area 2 wall vertical reinforcement, between GL 6 and 7, has been installed at 6" OC instead of the required WR1 spacing (8" OC). Please confirm if the

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

spacing of wall vertical reinforcement, as shown in the attached sketch, is acceptable.

SHIMM000-0349 **Top Mat Reinforcement Placement Tolerance** **Open** **10/10/2013** **10/20/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference: ACI 117.

Per discussions with TT Field Representative, please confirm if it is acceptable to increase the top mat slab reinforcement placement tolerance from +/-1/2" to +1/2" and -1". This would also change the concrete cover tolerance from -1/2" to +/-1/2".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0350 **Seismic Joint Drawing Discprepanices in Contract Drawings** **Open** **10/14/2013** **10/14/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Webcor Construction LP Spencer Sayles **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please reference detail 7/A1-8881 and 4/S1-3010 of the contract drawings.

1. Detail 7/A1-881 shows several elements that are not shown on the structural drawing (highlighted in red). Please confirm these are required in the assembly and provide details for tabs, bolts and welds.

2. The same detail depicts a "y" shaped object protruding from the seismic embed. What are these objects and what is their function?

3. Detail 4/S1-3010 depicts a 3/4" diameter stud that is not shown on the Architectural drawings. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The current contract drawing details differ from those provided and referenced in the RFI. Refer to architectural drawing A1-8881 dated 07/17/13 and structural drawing S1-3010 dated 11/12/27.

2. See response to Item #1 above.

3. See response to Item #1 above.

SHIMM000-0351 **5/8"x6' Galvanized Steel Plate at Seismic Joint** **Open** **10/14/2013** **10/24/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Shimmick Construction Company, Inc Scott Bunnell **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference Detail 7/A1-8881 and 4/S1-3010 of the Contract Documents.

1. Detail 7/A1-8881 (and other details on A1-8881) call for a 5/8"x6' galvanized steel plate secued to mud slab and soldier piles. This plate does not appear on the structural details for the seismic joint. What is the function of this plate?

2. How is the plate secured ot the mud slab? How is it secured to the soldier beams? There does not appear to be access to weld directly to soldier beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0352 **BGP - Temporary Power Route from Skid #5 to Zone #5** **Closed** **10/16/2013** **10/26/2013** **10/16/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Please find attached a drawing of the proposed Temporary Power route from Skid #5 to Zone #5. Is this routing acceptable? Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This should not be an RFI but reviewed via the submittal process. The proposed route should include but not limited to, elevation of proposed route across the pedestrian walkway, attachment method of conduit to Beale St. bridge, detail of conduit at shoring wall and product data to support installation.

The following submittal package and item # are available for use: TG0600-089 - BGP - Temp Power to Zone 4 Drawing Layout, Item # 011500-01 - Temp Power Route Drawing and Product Data at Zone 4..

SHIMM000-0353 **U-Bar at CDSM Encroachment Near GL 16.9/J** **Open** **10/17/2013** **10/27/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference: RFI T-0742 - CDSM Soldier Pile Encroachment Area 9.

Per the response to RFI T-0742, the spacing of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

verticals in the C21 embedded column at Gridlines 16.9/J was changed from 6" OC to 5" OC due to the CDSM soldier pile encroachment. As a result, there is an odd number (19) of verticals per layer which would leave one row of verticals to not be straddled by a U-bar. Gerdau proposes to widen the final U-bar in the embedded column and straddle
3 rows of vertical bars. See attached sketch for details.
Please confirm if this is acceptable.

SHIMM000-0354 **BGP - Concourse Elevator Pit Sill Plates** **Open** **10/16/2013** **10/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:
Please reference A1-2824 through A1-2847 (BGP TG06.0 Contract Drawings). Please confirm all delvator it sill plates are not int he TG06.0 scope of work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0355 **BGP - Concourse Opening Dimension Clarification** **Open** **10/16/2013** **10/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:
Please reference A1-2844 and S1-2204 (BGP TG06.0 Contract Drawings). Please clarify North-South concourse opening dimension at gridlines 13/C. 8'-8 3/4" or 7'-7"?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0356 **BGP - Elevator Rail Supports Dimension** **Open** **10/16/2013** **10/26/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:
Please reference attached detail 4, S1-7630. Please confirm length of embed dimension is 2-7", as shown in red.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*
SHIMM000-0357	**BGP - Structural Steel Embeds in Concourse Slab/Columns**	**Open**	**10/17/2013**	**10/27/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Attached is a rebar congestion model of the concourse slab and column C2 at C24.9. As is apparent, the structural steel shear lug portion of the plate embed is in conflict with the reinforcing steel and will not fit with required rebar spacing. The rebar conflicts with he shear lug and blockout that are present, include but are not limited to:

- Typical MFB Beam at C24.9 (blue colored bars in model)
- B-68 Beam (yellow colored bars in model)
- Main concourse slab (pink colored bars in model)
- Column C-2 vertical T-Heads (purple colored bars in model)

Please provide a solution that will provide a constructible blockout and embediment of the structural steel plate.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0358	**Sump Pit Rebar Tail and Trestle Pile @ GL 18.5/E - Area 9**	**Open**	**10/17/2013**	**10/27/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference: RFI T-0644

Three of the sump pit lower mat #11 tails near grid line 18.5/E are in conflict wit the nearby trestle pile. The bars have been trimmed to clear the trestle pile and provide an LTE of 34" instead of 60" as required per plans.

Typically, a bent bar would be spliced to the interrupted bar as required in SKS-0281 in the response to RFI T-066; however, the trimmed bars have a 70" length which would not beet the 78" LTS requirement. Gerdau propose to leave the 3 ea trimmed bars as-is and not incoporate an additional spliced bent bar. Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0359	**Vehicle Ramp Beam and Wall Support Embeds Clarification**	**Open**	**10/17/2013**	**10/27/2013**		**Potentially**	☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Please reference attached TG06.0 contract drawings S1-2251, A1-7401, S1-3411, S1-3203 and S1-3204.

1. Please confirm embed locations as shown on attached S1-2251 (reference drawings for description of embeds).

2. Please provide angles for embeds highlighted on A1-7401 (4 total embeds, with acute and obtuse angle for each embed); (similar to RFI Response T-0453.2)

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0362 **Area 11 to 16 Mat Slab Layer 3 Lap Splice Relocation** **Open** **10/21/2013** **10/31/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Due to limited access between the waterproofing and access trestle, Gerdau proposes to shorten the mat slab typical layer three (North-South) 67'-0" bars at Areas 11 through 16. This requires the lap splice location to be moved from the center of column line, as specified on Note 1 of the Mat Top Bar Notes in S1-2052, to the location shown in the attached sketch.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0363 **Lower Concourse Construction Live Load Variance** **Open** **10/23/2013** **11/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Scott Bunnell **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference Specification Section 03 10 00 - 3.2.A.2 and the attached project spreadsheet. This spec section calls for a minimum construction live load of 50 psf without referencing or indicating before or after concrete is placed. According to D.H. Charles (shoring designer), falsework projects of this application typically approach the falsework design for 50 psf before concrete is placed and 20 psf afterwards, while always maintaining a minimum design load (dead + live) of at least 100 psf. See attached D.H.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Charles project history spreadsheet using this same design approach. Falsework calculations to follow. Is this design criteria acceptable?

SHIMM000-0364 **Lower Concourse Slab Edge Dimensions** **Open** **11/04/2013** **11/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

The structural drawings for the lower concourse (SI-2202 through SI-2207, framing plans) do not include dimensions for the slab openings. Scaled dimensions from these drawings conflict with many of the dimensions provided on the architectural slab edge plans (AI-2842 through AI-2847).

Please see attached for observed conflicts (highlighted). Please confirm that the dimensions shown on the architectural plans at the slab openings are correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0365 **TG0600-103 Interior Wall Thickness Change Clarification** **Open** **10/28/2013** **11/07/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Reference: Submittal TG0600-0103
Per the submittal review notes for TG0600-0103, the train platform future interior wall thicknesses are increased in Areas 8 and 11. The reviewer has included a note "For 1'-4" walls use same coupler reinf as 14" walls. Coordinate with RFI T-0587." The note does not include 12" walls which were previously 10". Please confirm if the now 12" wall is to use the same coupler reinforcing as the 10" walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0366 **Vehicle Ramp Wall Embedded Supports** **Open** **11/05/2013** **11/15/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Please reference attached detail6 S1-3203, attached detail10 S1-3204, RFI Response T-0453.1, RFI Response T-0835 and attached SKA-2863.
RFI Response T-0835 confirmed that the vehicle bike ramp wall intersects the foundation wall at a 97 degree angle. Where this ramp wall intersects the foundation wall, embeds per detail 6 on S 1-3203 and detail 10 S 1-3204 are required. SCCI and its embed supplier has a constructability concern with these embeds. A similar constructability concern was brought up in RFI T -0453.1, stating that if an angle
member of such thickness is bent to achieve an angle other than that member's stock angle, it will structurally stress that member.

1. Please confirm it is acceptable to weld two (2) 8"x24"x1" plates together in order to achieve angle prescribed in RFI Response T-0835. Reference SKA-2863 for the acute and obtuse angles required. Forthcoming shop drawings will show all welds.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0367 **Receptacles at Elevator Pits 19E and 20G** **Open** **11/04/2013** **11/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

There are elevator pits in the mat slab at approximate grid lines 19/E and 20/G. The drawings E1-2024 and E1-2025 do not show any receptacles being supplied to these pits. Please confirm this is correct.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0368 **Conflict of elevator Opening Embed and Future Walls** **Open** **11/04/2013** **11/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference attached Detail4 on Sl-7630, attached Al-2202 thru Al-2205 and Al-2207, Sl-2202 thru Sl-2205 and Sl-2207, Sl-7130, Sl-7132, Sl-7134, Sl-7136 and Sl-

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

7139.

Please confirm no conflict exists between embed Detail 4 on S 1-7630 and future walls highlighted on attached architectural drawings.

SHIMM000-0369 **Column Tie Change from T9 to T12** **Open** **11/05/2013** **11/15/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please confirm if it is acceptable to replace the typical T9 column ties (90° or 135° bend on either end) with Tl2 ties (135° bends on both ends). See the attached sketch for further details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SHIMM000-0376 **BGP - ASI 107 - Concrete Curb and RCW - Concourse Level** **Open** **11/11/2013** **11/21/2013** **11/11/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Sylvia Hartanto **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

1. ASI #107 reissues A1-2222 to A1-2227 with changed note at the top right of page. Previously, CC= concrete curb were stated as "CC- Cone curb not in TG06". In ASI107, this note was revised to "Cone curb ref to A-00022 for cone curb schedule. Ref to structural dwgs for coupler details". Is it the intent to add the concrete curb scope into TG06 contract by the issuance of ASI 107?

2. On the same changed note, RCW Previously stated "Reinf conc wall not in TG06 ref to structural dwgs". In ASI 107, this note is changed to RCW : "Reinf cone wall ref to structural dwgs". Is the intent to add the RCW scope into TG06 contract thru the issuance of ASI 107?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please prepare and submit a cost proposal for revisions: 1. Concrete Curbs (CC) and 2. Reinforced Concrete Walls (RCW) as released in ASI 107.

Please itemize the aforementioned scope items as in your proposal for CR U-089 - ASI 107.

SHIMM000-0377 **ASI 107- Cone Curb and RCW- Concourse Level- Follow up to RFI SHIMM-00376** **Open** **11/14/2013** **11/24/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Sylvia Hartanto **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

SCCI is in receipt of response to RFI SHIM000-0376 in which WOJV requests SCCI to submit a cost proposal for revisions:1 Concrete curbs (CC) and 2. Reinforced Concrete Walls (RCW) as released in ASI 107. Please clarify the following:
1. SCCI to to price the construction of the concrete partitions (shown as 'ghost lines' in Architectural drawings) to the full height up to the ground level. This means that the construction of the concrete wall at concourse level cannot take place until level A bracing and Rebracing RA is taken out (after TG07.2 contractor build the ground level).
2. Since the RCW I concrete wall is now to be installed by TG06 contractor, dowels are to be installed (similar to platform rebar dowels in Area 3), instead offormsavers. Please confirm that this will not create inefficiency with TG06 or TG07 contractor.
3. 3.ASI 107 new notes on A1 -2222-A1-2231 state: "CC-Cone Curb- Refto A-0022 for concrete curb schedule- refer to struct dwgs for coupler details." Please provide the most recent copy of A-0022. SCCI has not been able to locate concrete curb schedule in the most current A-0022 copy (IFC). Please provide curb reinforcing detail as well
4. Dwg Al-2222-Al-2223 also contain walls noted as "cone wall". Please confirm that SCCI is to treat these walls as RCW.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SHIMM000-0380	Seismic Joint Clarifications	Open	11/14/2013	11/24/2013	Potentially ☐

From: Shimmick Construction Company, Inc Sylvia Hartanto **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST:

Please reference attached Details 7/Al-8881 (ASI #107) and 4/S1-301 0 (ASI #100).
1. Detail 7/A1-8881 calls for a "neoprene gasket compressed by bar and bolt typ". Please provide sizes for tabs and bolts. Also, provide welding instructions (if necessary).
2. The same detail shows pipe penetrations through the

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

seismic joint at both levels. Plumbing drawings
show a 4" "SAN/ AD" running parallel to the seismic joint.
Please confirm this pipe penetrates the joint.
If so, provide locations off of grid and pipe sleeve
dimensions. Also, provide details on how to seal this
penetration (watertight).
3. Detail4/S1-301 0 shows a 3/4" Dia Headed Stud at 12"
oc with 6" embed. Is this to be one row as the
drawing shows?
4. Detai14/S 1-3010 also calls for 4" diameter hole at 2'-0"
oc. What is the purpose of these holes? If
the clamping system is continuous, then what will support
the rod at the hole locations? Please clarify.

SHIMM000-0381 **Seismic Joint Specification Clarifications** **Open** **11/14/2013** **11/24/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Sylvia Hartanto **To:** Webcor Construction LP Spencer Sayles **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Please reference Specifications Section 07 09 16 - 2.6.A.l.
Section states "Provide joint assemblies in single lengths
between changes in direction with vulcanized,
mitered comers where joint changes directions or abuts
other materials."
I. Please confirm that this is in reference to the Omega
Seal gasket, and not the clamping system and
embedded steel.
2. Please confirm that it is acceptable to use clamping
components with 4'-0" maximum lengths with
butt joints not to exceed 1/8".
3. Please confirm that it is acceptable to use 14' max
lengths on steel embed with butt joints not to
exceed 1/8".

SHIMM000-0404 **BGP - Geothermal Riser Pressure Gauge Location** **Open** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Sylvia Hartanto **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Previous geothermal fields and risers had a "cat walk" behind the risers at grade. Additional pipe and 90s were added to bring the gauges up to grade to allow for pressure monitoring from this "catwalk." At fields 09-15 no cat walk exists, thus no location to access these gauges from.

Please provide the location for the geothermal riser gauges for inspection from Field 09 through Field 15.

SHIMM000-204.3 **BGP - Locations of Electrical Outlets, Equipment, and Fixtures** **Rejected** **08/30/2013** **09/09/2013** **09/05/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Per the RFI response, please find attached the revised layout for the Electrical Room B2221. This revised layout shows the dimensions off of the interior walls as requested.

Please advise if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sketch included with this RFI is not acceptable for submission. Refer to the response to RFI T-0655.1 and T-0655.

- It is nearly illegible.
- Comments from the previous revisions of this RFI instruct the contractor to coordinate with architectural wall dimensions. It looks like they have just removed any room dimensions previously included on the sketch.
- This is not submitted on current contract document backgrounds as instructed in the last revision of the RFI.
- Fire was indicated on the color key but no fire lines are included.

Please provide an acceptable sketch before this will be processed any further.

SHIMM000-314.1 **BGP - Embedded Conduits in Columns** **Closed** **09/04/2013** **09/14/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Chris Williams **To:** Webcor Construction LP Jackson Tukuafu **Answered By:**

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

In the MEP meeting on 9/4/13, the response to RFI T-0693 was clarified. To confirm conversations with the WSP Electrical Design representative, the only conduits to be embedded in columns per the RFI T-0693 response are to be fire management conduits per the locations depicted in the response. All other conduits (power recepticals etc) are to be stubbed up on the face of the columns and are not to be embedded in the column.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

SKANS360-0001 | **test** | **Closed** | **01/13/2014** | **01/23/2014** | **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Webcor Construction LP Gregory Kemerer **Answered By:**

Co-Author:

REQUEST:

See attached CD RFI # 183.1 SK1A, SK1B, SK2A & SK2B for items 1 & 2:
1.) Confirm the elevator rail support connection with erection aids is acceptable as shown.
2.) Confirm the elevator rail support connection with erection aids is acceptable as shown.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

T- 0851 | **BGP - Lower Concourse Shoring/Reshoring Calculation for Construction Live Loa** | **Closed** | **10/23/2013** | **11/02/2013** | **11/05/2013** | **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Scott Bunnell

REQUEST:

Please refer to attached excerpt of Specification Section 03 10 00 - Concrete Formwork - Below Grade Package.

Per Article 3.2, Section A.2 of Spec Section 031000, the minimum construction live load design criteria for shoring and reshoring is 50 psf. The specification section is unclear whether the live load of 50psf is prior to or post concrete placement.

According to D.H. Charles (SCCI shoring designer), falsework projects of this application typically approach the falsework design for 50 psf before concrete is placed and 20 psf afterwards, while always maintaining a minimum

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

George Metzger
11/4/2013
RESPONSE:
Specification 03 10 00: Design of formwork is the responsibility of the contractor. See Section 1.3C for formwork design requirements that include conformance with SEI/ASCE-37 and ACI 347. See Section 3.2 for Shores and Reshores including conformance with ACI 347.2R.

ACI 347.2R typically assumes that the Live Load is associated with the placement of fresh concrete and that the Live Load is removed upon the completion of

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

design load (dead + live) of at least 100 psf. The attached list of of D.H. Charles project used the this same design approach. Falsework calculations are to follow.

Is the D.H. Charles design criteria acceptable?

placement. Depending on the contractors planned use of "working surfaces" and the particular shoring/ reshoring scheme, the Live Load may be more or may be less than the 50psf minimum after placement operations.

Unless measures are taken restrict construction access to specific areas, it is assumed that the entire Lower Concourse will be a working surface and that the contractor will assign an Operational Class per SEI/ASCE-37 Section 4.8.1. Justification for the assumed uniform load will form part of the required submittal.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0001	Article 6 Changes in Work - Clarification	Closed	10/11/2010	10/25/2010	11/03/2010	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author:

REQUEST:

Reference: Spec Section 00 07 00, Article 6 - Clarifications and Changes in Work

Article 6 in the General Condition specification section 00 07 00 defines the procedure for changes in work. The procedures defined throughout Article 6 are conflicting. According to section 6.01.A, CM/GC shall promptly comply and proceed with changes issued by the TJPA in the form of a Change Order or Field Order. Section 6.02.B states that the TJPA will respond to RFI's with written Clarification deemed necessary and consistent with the Contract Documents or a Field Order requiring minor changes in work. Per section 6.01.A, the CM/GC is to proceed with the Field Order immediately. However, according to section 6.03.A, CM/GC shall submit a Change Order Request within 21 days of written directive. Please advise if the CM/GC is to proceed with changes promptly and prior to approval or if the CM/GC shall receive approval prior to proceeding with any changed Work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

00 07 00 - 6.01.A specifies that, "TJPA may..order additions, deletions, or revisions in the Work by Change Order or Field Order, CM/GC shall promptly comply with such orders and proceed with the Work,.." [emphasis added]. Under paragraph 6.02.B, TJPA may issue a Field Order in response to an RFI submitted by CM/GC. Under paragraph 6.03A, the CM/GC must submit a COR within 21 days if in the opinion of the CM/GC, the Field Order is considered to be a Change to the Contract.

Therefore, TJPA expects the CM/GC promptly to proceed with Work as may be clarified or directed through a Field Order, unless instructed otherwise. CM/GC has the recourse of submitting a COR when appropriate to do so, within the time limit stipulated. To avoid confusion, TJPA's Field Orders will clearly state whether the CM/GC is required to carry out the instruction promptly. Nevertheless, the CM/GC shall whenever possible incorporate a Field Order directive into the Work with minimal disruption to the planned sequence of activities.

T-0002	Transit Center Building Address Clarification	Closed	10/20/2010	11/03/2010	10/28/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Please clarify the building address for the Transbay Transit Center. This is required to complete our site specific Click Safety program, complete insurance documents, etc.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

425 Mission Street, San Francisco, CA 94105

Answered by Alfred Lau
TJPA (PMPC)
10/28/2010

Constructware RFI #T-0003

T-0003	301 Mission Wall Specification Format	Closed	11/17/2010	12/01/2010	11/23/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Sheet: C-0001 issued 11/04/10; 301 Mission Interim Screen Wall - General Notes

We are in the process of preparing submittals for this project. In doing so we would like to know what specification division format would be most appropriate for us to submit and track these project documents. Please provide us with the desired specification division format as soon as possible so that our submittals can be processed with the proper efficiency.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All submittals for the 301 Mission Interim Screen Wall shall be submitted under the new CSI Division, "301 Mission Interim Screen Wall," that has been created and is available in Constructware under Transit Center Building (140). Within CSI Division "301 Mission Interim Screen Wall," there is a list of available "spec sections" that are equal to the drawing sheet number (and paragraph heading as applicable) that the submittal is called out on.
If there are multiple "spec sections" on one sheet, the suffix ".X" has been added. For example, "S-0001.5 Concrete and Reinforcing" shall contain all submittals found on sheet S-0001 under the heading "Concrete and Reinforcing."
If there is no suffix , the description of the spec is simply the title of the drawing.

T-0004 **Transbay Project Signs** **Closed** **12/01/2010** **12/15/2010** **12/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Spec Section: 01 15 01

Webcor/Obayashi is initiating project sign procurement per Spec 01 15 01 and will require the artwork and locations for four 4x8 post mounted signs. What are required graphics/logo's for sign fabrication and where shall each sign be located.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Graphics for Project ID Signs specified per 01 15 01 will be issued to CMGC as soon as the names for mayor and SFCTA Board members are confirmed in early January, 2011. Information for locations will be issued prior to installation.

T-0004.1 **Transbay Project Signs** **Closed** **04/01/2011** **04/11/2011** **04/12/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: RFI T-0004
Spec Section: 01 15 01

Response to RFI T-0004 read "Graphics for Project ID Signs specified per 01 15 01 will be issued to CMGC as soon as the names for mayor and SFCTA Board members are confirmed in early January, 2011. Information for locations will be issued prior to installation."

In a follow up to this RFI, Webcor/Obayashi's is initiating project sign procurement and will require the artwork and locations for four 4x8 post mounted signs. What are required graphics/logo's for sign fabrication and where shall each sign be located.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unfortunately that the name for one of the TJPA Board seat (PJP seat) is still not confirmed at this time, and it may be at least another month before that can be resolved. TJPA/PMPC will ensure this issue is resolved as expedited as possible and inform the Contractor immediately after the information is anounced.

T-0005 **Incorporation of Trade Subcontractor Schedule Submittals** **Closed** **12/03/2010** **12/13/2010** **12/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Jim Tomaszewski **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Jim Coughlin

Co-Author:

REQUEST:

Spec Section: 01 13 10 & 01 1310

For TJPA convenience W/O requests that Trade Subcontractor Schedules (Section 01 13 10, 1.2.B) be incorporated into the Monthly Schedule Report (Section 01 13 10, 1.5.A) for the month following issuance of NTP for the specified trade package. A detailed section of the Narrative will be clearly identified and contain all of the narrative requirements of Section 01 13 10, 1.2.B.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Spec Section 01 13 10, 1.2.B will be revised to relax the requirement to include a schedule narrative in the first schedule submittal that is due 15 days after award. However, the 15 day requirement to submit a construction schedule will remain. Spec Section 01 13 10, 1.5.D will also be revised to clarify the requirements of the schedule narrative

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T-0006 **301 Mission Wall Plywood Wall Barrier Proposal** **Closed** **12/08/2010** **12/18/2010** **12/17/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference: C-5000 and attached sketch

During the Fremont Shoring/301 Mission Wall Coordination Meeting on 12-7-10, it was proposed that a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Plywood barrier wall be erected in lieu of the triton barrier as agreed to in the meeting with Millennium Partners. The 8' tall plywood barrier wall shall be constructed in segments such that it can be pushed

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

plywood barrier wall be erected in lieu of the triton barrier shown on sheet C-5000 of the 301 Mission Street Interim Screen Wall drawings. This plywood barrier will block the view of the 301 Mission tenants and will allow for the early demolition of the existing screen wall (prior to the construction of the new "interim" screen wall). By doing this it will enable the demolition contractor to start the removal of the deep footings earlier than currently scheduled.

In addition, the deletion of the triton barrier will provide approximately 2' of additional driveway width for 301 Mission. Please review the attached preliminary sketch of the above mentioned plywood barrier and provide engineering/architectural comments and mark ups.

against the new screen wall at the end of each week to accommodate parking. While in position during working hours it will be mechanically fastened to the pavers and to the structure on the back side in order to prevent it from overturning. The exterior face of the wall will be painted "jet mist" to match the existing wall stone. Pilasters will also be painted on the plywood to match the stucco on the existing wall.

W-O will submit a dimensioned sketch drawing with plan, elevation and bracing details to be submitted by your subcontractor once he has completed design and before he begins construction.

T-0007 **Field Order #2 - Issued for Programwide** **Closed** **12/08/2010** **12/18/2010** **12/13/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

According to today's OAC meeting, the documents issued with FO#W0-002 are intended for project-wide review and not exclusively for the "BSE Contract" as stated in the Field Order. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All Field Orders issued by TJPA and TJPA Representative to CM/GC in accordance with 00 07 00 are for the complete scope performed by CM/GC. It is CM/GC¿s responsibility to direct the requirements to the appropriate trade subcontractors. WO-002 has been re-issued as WO-002R1 on 09DEC2010 with appropriate language to clarify this issue.

T-0008 **Specification Section 00 04 82 Cert. of Bidder Regarding Debarment and Suspensi** **Closed** **12/08/2010** **12/18/2010** **12/10/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Per the TJPA, specification section 00 04 82, Certification of Bidder Regarding Debarment and Suspension, shall no

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 00 04 82 ¿ Certification of Bidder Regarding Debarment and Suspension reflects the City

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

longer be used. Please confirm.

If this is in fact true, please confirm this section will be removed from the project specifications.

procurement requirement. With the current project funding arrangement, meeting USDOT procurement is needed, Section 00 08 13/APA - 25 ¿ Certification Regarding Debarment, Suspension, and Other Responsibility Matters will be used in lieu of 00 04 82, and 00 04 82 will be deleted per Field Order WO-01, which is expected to be issued this week.

T-0009 **301 Mission Wall Storage Location for Planter Boxes of 301 Mission Wall** **Closed** **12/10/2010** **12/20/2010** **12/13/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference: 301 Mission Interim Screen Wall Drawings Sheet C-1000

On sheet C-1000, there is a note for the (E) Planter boxes that says "(e) precast planter box (typ) to be remove and stored". Please designate a location for storing the (E) planter boxes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The planter boxes are to be stored for re-use in front of the final screen wall. The timing of construction for the final wall needs to be after the train box is complete, but does not have to wait until the new Transbay Terminal is open for bus operations. Millennium did not agree to providing storage on their property.

Please provide for space on Lot M to store the boxes and inform the contractor accordingly.

T-0009.1 **301 Mission Wall Storage Location for Planter Boxes of 301 Mission Wall** **Closed** **12/17/2010** **12/27/2010** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

In Transworld's review of the existing planter box condition at the 301 Mission Screen Wall, Transworld's viewpoint after close inspection of the site is that the planter boxes were originally installed with the intent of being permenant fixtures. There are connection points for these planter boxes that appear to be initial anchor points for original

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent is to salvage and store these boxes in lieu of replacing them with new ones. Per Contract Drawing C-2000 Contractor is to cut and cap all existing irrigation and electrical lines feeding planter boxes. Contractor can remove plants and dirt if needed to uncover and remove anchorage, then

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

placement of these fixtures and there is concern that these planter boxes were never intended to be reinstalled/relocated after the initial installation. With all do skill and care, Transworld intends to relocate these planter boxes with mininmal damage. As a point of advisement, since these boxes do not appear to be designed for relocation, Transworld is concerned that such action will render these boxes unuseful. Please confirm that the design is to relocate these boxes in lieu of replacing them with new ones.

salvage precast planter boxes.

T-0010 **EPA Permit Number** **Closed** **12/15/2010** **12/25/2010** **12/16/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Edmond Sum

Co-Author:

REQUEST:

Please confirm the EPA permit number is CAR000197558.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, the EPA identification number to use on waste manifests for the Transit Center construction is CAR 000197558. The site address is 425 Mission Street, San Francisco, CA 94105. The generator and primary contact is Edmond Sum, Engineering Manager, with the Transbay Joint Powers Authority.

T-0011 **301 Mission Wall Waterproofing Submittal** **Closed** **12/21/2010** **12/31/2010** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Regarding the waterproofing submittal, since the driveway is still covered with pavers the existing material and application procedure is unknown to Transworld. Therefore a submittal which matches the existing condition can not be provided until Transworld knows additional information. Please confirm that it is acceptable to defer the waterproofing submittal until after the material is exposed and the existing waterproofing material and application method is determined or provide the specific type of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed: Webcor-Obayashi/Transworld can defer the waterproofing submittal until after the material is exposed and the existing waterproofing material and application method is determined.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

material and application method required.

T-0012 **301 Mission Wall - Requesting Specifications for Utility Plug** **Closed** **12/21/2010** **12/31/2010** **01/04/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: 301 Mission Wall Drawings sheet C-5000

There is not enough information to determine the material and dimensions for the utility plug at the 301 Mission Wall. Please provide specifications and product data for the "Utility Plug" on sheet C-5000, sheet note 5.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor to determine dimensions of temporary plug in the field and propose material appropriate to meet the requirements specified in note 5 on sheet C-5000.

T-0013 **BSE IFC Table of Contents Discrepancy** **Closed** **01/05/2011** **01/15/2011** **01/11/2011** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Ref IFC TOC dated 12/15/10 (attached)

We have received the revised Issued for Construction (IFC) drawings and specifications for the BSE package. The table of contents has check marks to indicate added specification sections. Specification section 02 41 19, Pile Removal is not noted with a check mark but a revised specification was issued. The excavation and backfilll (31 23 10) section was not re-issued, however, a check mark is next to it.

Also, the revision logs at the end of each section need to be revised to show only the revision number and dates.

Please advise and re-issue.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. 00 01 10 Rev 3 and 00 01 15 were released to W/O on 07JAN2011, rectifying issues cited in the RFI.

2. Since it is TJPA/PMPC's opinion that the formatting of the revision box for the technical sections is adequate and appropriate as is. Change to match the abbreviated version of the Div. 00 and 01 sections should be formally requested by W/O such that Design Team and TJPA/PMPC could fully review that and agreed to from a QA/QC point of view.

T-0014 **TG03 BSE IFC Drawing Set** **Closed** **01/06/2011** **01/16/2011** **01/07/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

We received multiple versions of PDF Drawings G-0000, A-0000, A-0005, and A-0010 (see the attached images) for TG03 IFC Drawing Set.
Please confirm the following answer from PMPC via email on 1/5/2011.
"Use the 1/3/2011 CD for the PDF files. Use the 1/4/2011 CD for the DWG and DWF files. Disregard the PDFs on the 1/4/2011 CD."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm that "Use the 1/3/2011 CD for the PDF files. Use the 1/4/2011 CD for
the DWG and DWF files. Disregard the PDFs on the 1/4/2011 CD."

T-0015 **301 Mission Wall - Concrete Mix Design** **Closed** **01/07/2011** **01/17/2011** **01/13/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached submittal package TG1901-001 review comments and letter from concrete supplier

Per the comments received on the concrete mix design submitted in submittal package TG1901-001, please confirm that the admixture for air entrainment shall be compliant with ASTM C260.

Transworld has been informed by their concrete supplier that ASTM C260 requires a mix of 6% air entrainment and such amounts of air entrainment are specified only in freeze/thaw areas for durability. The Bay Area is generally not considered a freeze/thaw area and therefore a mix with 6% air entrainment is not typically used. The concrete supplier, Bode Concrete, has provided a letter from BASF related to this specific issue.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Comply with contract documents "Concrete and Reinforcing" Note number 6 on Sheet S-0001, which states:

"Maximum water/cement ratio shall not exceed 0.45 by weight, slump shall be two to six (2"-6") inches. A water reducer or superplasticizer may be added on site after the slump is verified by inspector. Entrained Air: 6% +/- 1-1/2% for durability."

T-0016 **BSE - Current Trainbox Structural Drawings** **Closed** **01/14/2011** **01/24/2011** **01/18/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

In order to accurately design and locate elements of the bracing, trestle and bridges, please provide the most up-to-date and reliable architectural and structural drawings

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See Issued for Construction - Buttress/Shoring/Excavation documents dated 12/10/10.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(including cad files). Also, drawings (including CAD files) of the train box and any other component of the transit center that has the potential to conflict with the BSE scope of work.

T-0017 **BSE - CDSM Wall Alignment** **Closed** **01/14/2011** **01/24/2011** **01/21/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

The response to pre-bid RFI #177 indicated that the CDSM shoring line alignment is expected to change "prior to installation". We request the revised re-alignment be provided to us as soon as possible. We are currently designing and issuing steel mill orders based on the current alignment. If the revision comes after mill orders are finalized we risk missing our rolling schedule thereby losing our bid date pricing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per TJPA's direction, the Trainbox plan and extent have been modified at the Southwest corner of the site. See the attached sketch SKGT-0001-R1, that show the revised shoring wall alignment.
For your reference, see the attached structural sketches that indicate the revised in-progress Trainbox structural columns and shearwalls that will be issued for construction in the future. These sketches are: SKS -0088 Foundation Level - Zone 02 Plan Phase 1, SKS- 0089 Foundation Level - Zone 03 Plan Phase 1, SKS-0090 Foundation Level - Zone 07 Plan Phase 1, SKS-0091 Foundation Level - Zone 10 Plan Phase 1, and SKS-0092 Lower Concourse Level - Partial Plans Phase 1.

T-0017.1 **BSE - CDSM South Wall Alignment Construction Drawings** **Closed** **09/22/2011** **10/02/2011** **10/04/2011** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI T-0017 and attached Sketches

Please confirm the attached sketches issued and approved with CR T-005B are "For Construction" and the notes indicating "draft in progress" and "not for regulatory approval, permitting or construction" will be removed on a future issuance of these sheets.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sketches attached to previous RFI's reflect the confirmed CDSM shoring alignment.

Text indicating "draft in progress" and "not for regulatory approval, permitting or construction" shall not be transferred to revised "Issued for Construction" drawings.

Documents that are included in Change Orders shall

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

be considered a Contract Document.

T-0018 **BSE - Waler to CDSM Wall spacing** **Closed** **01/14/2011** **01/24/2011** **01/24/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

There may be a potential conflict with the walers and the train box reinforcement. Spec 31-55-00 allows 6" minimum spacing from CDSM Wall to face of waler, but based upon Balfour Beatty past experience with a very similar situation, it is felt that the 6" space is not sufficient because of the following:

1. There does not appear to be enough room between the bottom of the waler and the CJ for a lap splice of the vertical reinforcing as depicted on sheet S -3201. Reference the attached drawing.
2. The 6" gap is difficult to snake reinforcement through without damaging the waterproofing attached to the wall.

BBI recommends making the space between the face of the CDSM wall and the waler equal to the wall thickness. This would eliminate conflicts with the rebar and walers, reduce reinforcement splicing and reinforcing congestion.

Additionally attached is an example where the space behind the waler was equal to the wall thickness.

Please advise whether to continue the design with the current 6" minimum space or advise if the space increases.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti Response: It is permissible to use mechanical couplers for the vertical reinforcement interrupted by the whaler for the condition where whaler is 6" min away from CDSM wall.
The proposed increase in whaler to CDSM wall spacing concept is acceptable by TT regarding the Trainbox wall, pending Arup's evaluation/comments. Submit details of revised scheme for review.
ARUP Response: The design team cannot comment on the impact of the Contractor's proposal, without seeing more details of the shoring wall internal bracing system and associated proposed details.
Adamson Associates Response: The proposal cannot be evaluated based on the limited documents submitted. However, it appears that the bracing and attachments shown in the drawing attached to this RFI will need to be modified to allow for the waterproofing system to be appropriately installed as the Wale system is removed.

T-0019 **301 Mission Wall - Stone Panel Anchorage to 301 Mission's Screen Wall** **Closed** **01/18/2011** **01/28/2011** **01/31/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached pages from the 2008 Building Code

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed anchorage system can not be evaluated

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

After removing stone panels in the demolition of the original 301 Mission Wall, the existing system of the stone panels does not utilize an anchoring system for mounting the stone panels to the wall. In addition, section 6.2.2.4 of the 2008 Building code does not specify mechanical fasteners for masonry less than 2-5/8" thick. The stone thickness used on the new wall will match the thickness of the existing, which is approx 10mm thick. Therefore, according to section 6.3 of the 2008 Building Code, the stone panel system for the Transbay Interim Screen Wall that should be used is the adhesion application.

Please confirm that Transworld can use the adhered method for the stone panels in lieu of mechanical fasteners.

prior to inspection of the retained stone sample.

Please provide retained samples of stone from the demolished 301 Mission Street Screen Wall in order to confirm dimensions of the existing stone and evaluate proposed anchorage system.

T-0019.1 **301 Mission Wall - Stone Panel Anchorage to 301 Mission's Screen Wall** **Closed** **02/07/2011** **02/17/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0019 and attached photos

RFI T-0019 requested samples of stone from the demolished 301 Mission Street Screen Wall in order to verify thickness of the stone that will be used on the wall, and confirm that a mechanical system had not been used to mount the stone. A sample has been shown to URS and pictures of that sample are attached to this RFI. Please confirm that mechanically fastened panels are not necessary and that a thin set adhesive application will be an acceptable means to setting the stone on the new screen wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Mechanical fastening of matching stone panels is not required. Location of face of stone as shown on A-6000 detail D is a contract requirement. Please provide complete detailing of proposed attachment of stone and how the location of the face of stone will be achieved using thinset.

T-0020 **BSE - Demo Contract Shoring Wall and Bracing** **Closed** **01/27/2011** **02/07/2011** **02/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Sheet D-2203 and Specification Section 02 41 01

The BSE contract drawings shows a temporary shoring and bracing that is installed by the demo contract and subsequently removed by the BSE contract. In order for Balfour Beatty to properly plan their work, they request the following information:

1 - The shoring design drawings for the shoring wall on the east side of Fremont St. (shown on D-2203) that was submitted by the Demo Contractor.

2 - As-built location of the above mentioned shoring wall.

3 - Bracing drawings and details that submitted for the basement wall rakers that are schematically shown on detail 1 of sheet D-5100 and details 1 & 2 on sheet D-5102

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1 - Approved Shop Drawings Submital #312000-01.3 - Interim Shoring Wall REV 3 will be transmitted through Constructware today 2/2/11.

2 - Wall is currently being constructed in the location indicated on the approved shop drawings.

3 - Bracing drawings are not currently available for transmission. They will be transmitted to W/O when available.

T-0021 **BSE - Existing Unknown Concrete Wall** **Closed** **01/27/2011** **02/07/2011** **02/04/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran
To: Turner Construction Compan Daphne Faulkner
Answered By: URS Corporation David Fyfe
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Drawing Set D and Specification Section 02 41 01

Based upon Balfour Beatty observations of the site, there appears to be a concrete wall approximately 18in wide that is outside of the existing terminal basement walls adjacent to the 301 Mission Property line and the east side of Fremont St. that is not shown on BSE contract drawings or the existing Terminal drawings.

Does this wall continue around the entire perimeter of the Zone 4 basement?

Will this wall be removed by the demo contract prior to BSE NTP #02?

Please provide as-builts of the wall location if is to remain.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Full extent of unforeseen concrete foundation wall not confirmed.

Existing Terminal and Ramps Demolition Project contractor (EBI) has been directed to remove extents of unforeseen foundation wall that are within limits of removal as shown in contract documents to a depth consistent with removal of adjacent structures (pile caps/footings).

Portion of unforeseen concrete foundation wall within Fremont Street to remain in place. Portions of unforeseen concrete foundation wall that are exposed but that are to remain in place are to be documented via as-builts. As-builts will be provided as completed.

Existence of similar walls in Zone 2 and 3 not

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Does a similar wall exist around the basement walls in Zone 2 and 3?

confirmed. Attached San Francisco-Oakland Bay Bridge, Department of Trinagulation and Surveys, San Francisco Topography Maps dated August 1934 (pages 27-32) are the best available information at this time and have been provided for your information.

T-0021.1 | **BSE - As Built Location of Concrete Foundation Wall Along Fremont St.** | **Closed** | **03/01/2011** | **03/11/2011** | **03/15/2011** | **Potentially** ☐

From: Webcor Construction LP Nhi Tran

To: Turner Construction Compan Daphne Faulkner

Answered By: Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0021 (BBI #005) and Drawing Set D

Please provide BBII with as-built locations of the unforeseen concrete foundation wall within Fremont Street which is to remain in place. Please also provide as-built locations for the soldier pile & tie back wall which parallels Fremont Street adjacent to the Buttress. BBII and BECHO want to confirm that there is enough room for their equipment to drill the Buttress Shafts along Fremont Street, and to identify any potential conflicts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Portion of unforeseen concrete foundation wall within Fremont Street to remain in place as shown on attached. The attached San Francisco-Oakland Bay Bridge, Department of Triangulation and Surveys, San Francisco Topography Maps dated August 1934 are the best available information at this time were provided in RFI T-0021 Rev.0. This is believed to be existing concrete full basement wall extending under the sidewalks remaining from pre Transbay factory/businesses.

As-Built Fremont St. Shoring wall installed by Evans Bros/Malcolm Inc. the soldier pile and tie back wall is also attached. Survey points for the I-Beams was previously transmitted to Webcor-Obayashi Transmittal No. 140-00650.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0022	Quality Management System - Org. Chart	Closed	01/28/2011	02/07/2011	02/08/2011	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Jim Coughlin

Co-Author:

REQUEST:

Ref - Attached Org. Chart

Please identify the appropriate personnel associated with the attached org. chart found the in the program Quality Management System.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A revised PMPC organization chart is with TJPA for review. However, I don't understand why this is an RFI. What W/O activity requires this information? The organization chart in the QMS is deliberately generic (titles only) and we have no intention of changing it.

T-0023	Construction Manager Quality Plan	Closed	01/31/2011	02/10/2011	02/07/2011	Potentially	☐

From: Webcor/Obayashi Joint Venture Bob Garcia **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Page 30 Paragraph 8.5.5 of the QMS manual makes reference to "the construction management consultant's quality plan". Please advise when the Construction Managers Quality Plan for the TTC will be issued?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractually - the Draft Quality Plan from CMO Construction Manager Oversight is due 2/14/11. Final Quality Plan is due 3/28/11.

T-0024	Re-bracing for Revised SW Corner Alignment	Closed	02/02/2011	02/11/2011	02/11/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1112 and Specification Section 31 55 00

The response to RFI T-0017 showed a revised CDSM wall alignment at the SW corner of zone 1 and the addition of the structural shear walls on wall X1-1. The RFI response implied that BBII's cross-lot bracing needed to be re-designed so there are no conflicts with the concrete columns and shear walls. In order to minimize the cost and impacts as a result of this change, BBII suggests using rakers for the re-bracing in this corner.

The cross lot bracing would be installed as specified for the initial excavation (ref stage 10 on GT-1112) similar to the layout shown on the attached sketch #1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The use of rakers as rebracing is acceptable provided the design criteria specified in the construction

documents is satisfied. This includes, but is not limited to, the bracing stiffness requirements. The

effective stiffness of the rakers will be affected by the stiffness of the permanent train box wall and

mat slab and tiedowns.

The response to this RFI must include input from Thornton Tomasetti regarding the impact on the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Then for the re-bracing stage 12 and stage 15 rakers could be used in locations shown in attachment sketch #2.

Would a design based on this concept be acceptable?

If not, BBII is available and willing to brainstorm additional ideas.

permanent structural elements.

As discussed at the Feb 9, 2011 TG03 BSE Subcontractor - Design Team Coordination Meeting, it

may be possible to reduce the requirement for rebracing if the permanent trainbox shear walls can

be built sequentially and their construction coordinated with the removal of struts. Arup suggests a

meeting with Arup, the Contractor, and Thornton Tomasetti as this requires an understanding of the

proposed construction sequence and an evaluation of the permanent structural elements.

Thornton Tomasetti (TT) Response: We have review the response by Arup, and found this is consistent with our prior discussion with Arup. No further comment from TT is needed.

T-0025 **BSE - Request for Recent Groundwater Monitoring Data** **Closed** **02/02/2011** **02/12/2011** **02/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 55 00 and GDR Table 7-2 (attached)

The Project GDR table 7-2 shows the last GW level reading in Feb of 2010. Can BBII receive a copy of any readings taken within the last year?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached T0025-SK01 for groundwater readings.

T-0026 **301 Mission Wall - Sample chip of paint color for exposed concrete** **Closed** **02/07/2011** **02/17/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: A-5000 note 6

Note 6 on sheet A-5000 states, "Color of paint for exposed concrete to match sample chip provided by TJPA representative". Please provide color sample chip per this note.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Omit note 6 on sheet A-5000. Color of paint for exposed concrete wall shall match color of paint provided on existing exposed planter boxes.

T-0027 | **301 Mission Screen Wall - Dowels for Screen Wall** | **Closed** | **02/08/2011** | **02/18/2011** | **02/18/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached pictures

Upon laying out the dowel embedment locations for the new concrete wall, the locations are very close to the edge of the existing manholes and vault lids. Transworld is concerned that the location of the doweling is too close to these existing items and does not believe it to be the intent. Please see attached pictures showing the areas of concern. Please respond ASAP with direction on where to place the dowels, as Transworld has no slack in the schedule to accomodate any stoppage of work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The final condition for the dowels drilled into the 301 Mission existing basement perimeter wall is shown on attached sketch. Dowels shall be drilled 6 inches from exterior face of existing basement perimeter wall. Verify location of existing basement perimeter wall prior to drilling. These dowels remain within 1 inch of centerline of the new concrete wall.

See attached RFI coordination sketch.

T-0027.1 | **301 Mission Screen Wall - Dowels for Concrete Wall: Layout Acceptance** | **Closed** | **03/29/2011** | **04/08/2011** | **04/05/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0027

Please confirm that per site walk on 03/22/11 with Danny Lo and Erik Liu of Transworld, David Hungerford with Webcor-Obayashi, and David Fyfe and Christine Baudier of URS, that the layout of the core holes for the #8 dowels in the concrete wall are acceptable.

RFI T-0027 included a response sketch directing dowels to be in line and set 6" from the south face of the existing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It was verified in the field that #8 dowels were drilled approximately 6" from the exterior face of the existing vault wall and that #8 dowels will have a minimum 2" concrete cover.

The layout of the #8 dowels is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

wall below. Due to the existing condition of the wall below, which was poured aginst a shoring wall and therefore not exactly straight, the dowels are laid out to be in line with each other and therefore vary in dimension measured off of the south face of the existing basement wall below. Please confirm, as it is understood, that the existing layout is acceptable. Dowels are being set in epoxy today, so an immediate response is requested.

T-0028 **BSE - Bracing Stiffness Calculation Confirmation** **Closed** **02/08/2011** **02/18/2011** **02/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Arup Kevin Clinch

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 55 00 and attached sample calculations

The response to pre-bid RFI #TG0300-058 provided an equation for calculating the stiffness of the bracing system. Attached is BBII's designer's sample "template" calculation for stiffness for the proposed waler and strut bracing system.

BBII requests a confirmation that the designer's interpretation and use of the provided stiffness calculation is correct, prior to progressing further submittal calculations and procuring steel bracing members.

Additionally, BBII requests an expedited response to this RFI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The methodology shown in these calculations for determining the internal bracing system stiffness is consistent with that shown in response to pre-bid RFI #TG0300-058.

Complete details of the internal bracing system were not included in the RFI. It is therefore not possible to conclude that all elements affecting the stiffness of the internal bracing system have been considered and included in the analysis.

These calculations have not been reviewed for conformance with other design criteria. A more complete review will be undertaken when the calculations are issued as a submittal.

T-0029 **301 Mission Screen Wall - Sub Surface Structure Conflict with New Wall Location** **Closed** **02/09/2011** **02/19/2011** **02/18/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Photograph attachments 1-8

In laying out the location of the new concrete wall,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

To accommodate unforeseen location of existing structures, new concrete wall to be shifted south so that the south face of new concrete wall is flush with

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Transworld has determined that the new concrete wall will extend over existing sub-surface structures, which is not per the contract documents. Please reference attached photos.

First, there are two manhole covers that are incorporated in concrete rings. These rings conflict with the location of the new wall and are included in photographed attachments. Due to the size of these concrete rings, a portion of the ring will be buried by the new wall. Second, the steel frame of the existing electrical vault doors is of similar condition as the manhole covers; this condition can also be seen in the photographed attachments.

Please confirm that Transworld is to proceed with the plan location of the new concrete wall which will cover and bury a portin of these existing sub-surface structures.

the exterior face of the existing 301 Mission street basement perimeter wall.

Interfering regions of existing sub-surface structures (manhole rings and vault sides) at the base of new concrete wall shall be incorporated into new concrete wall. All surfaces of interfering concrete regions to be incorporated into new concrete wall shall be prepared as bonded construction joints. Verify functioning of manhole and vault lids/openings are not obstructed by new concrete.

Contractor to provide chalk line at updated south and north faces of new concrete wall for verification of updated location in field by TJPA representative prior to construction of new concrete wall.

See attached RFI coordination sketch.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0030	301 Mission Screen Wall - Detail required for concrete sleeve installation	Closed	02/09/2011	02/19/2011	02/18/2011	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached 1/C-5001 and photo

The existing condition of the manhole covers are not consistent with the contract documents. Detail 1/C - 5001 indicates that the existing manhole sits above an existing concrete slab, to which is to be drilled into with 1 inch embedment. However, please refer to the attached photograph in attachment 1 which shows the manhole cover is actually a part of a subsurface concrete ring assembly, and wrapped with waterproofing. Please provide a new detail and instructions for the installation of the required concrete sleeve and a detail for penetrating the existing waterproofing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per contract documents;

Remove manhole lid;

Retain existing concrete and steel collar/frame;

Dowel into existing concrete collar/frame (1" max) with #3 hoops @ 10" O.C.;

Prepare existing concrete surfaces to be incorporated into new sleeve as bonded construction joints;

Cast in place 6" thick concrete sleeve directly over manhole (concrete and steel collar/frame);

Provide Kadee SS 1/8" circular grate satin finish.

T-0030.1	301 Mission Screen Wall - Concrete sleeve installation	Closed	02/24/2011	03/06/2011	03/03/2011	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0030

The final measurement from the edge of the steel collar/frame at the existing manholes to the face of new wall is (+/-) 4-3/4", this dimension less form material (+/-) 3/4" to 1", results in the new cast in place concrete sleeve to be 4" thick at the point closest to the wall . Response to RFI T-0030 notes that the sleeve is to be 6" thick. Please clarify if the 4" thickness is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

4" minimum thickness acceptable only where new CIP concrete sleeve is in conflict with new interim screen wall. Remaining portions of new CIP concrete sleeve not in conflict with new interim screen wall shall be 6" thick per contract documents.

Contractor shall provide 3/8" expansion joint material between face of new interim screen wall and outside face of new CIP concrete sleeve.

See attached coordination sketch.

T-0031	301 Mission Screen Wall - In-ground lighting	Closed	02/09/2011	02/19/2011	02/21/2011	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Note 10 on C-2000

The new in-ground lighting as anticipated in plans and note 10 on page C - 2000 must be substituted because the contract design cannot be accommodated in the new construction. The contract design requires:
1) that the new lighting match the existing with the same model and size.
The issue here is that the existing light fixtures are larger than can be accommodated within the thickness of the new construction.

2) that the existing electrical lines servicing the existing lights be disconnected so that it is reconnected to the new lights.
The issue here is that the electrical lines for the existing light fixtures are embedded in the concrete curb that is to be removed. Upon removal of the existing concrete curb, there will be no existing electrical lines to reconnect for the new lighting power.

Please provide a new detail and instructions for the in-ground lighting.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Additional information is required to understand/interpret existing conditions and facilitate a response to this RFI.

Please provide all available information on existing conditions that pertain to this RFI, including but not limited to the following;

1. type, model, size and manufacturer of existing light fixtures;
2. type and size of existing electrical conduit/conductor;
3. sketch illustrating alignment of existing electrical conduit/conductor, including junction boxes, termination points and power source; and,
4. sketch illustrating thickness of existing/new construction where new lights are to be set/placed.

T-0031.1	301 Mission Wall - In-ground lighting	Closed	03/31/2011	04/10/2011	04/06/2011	Potentially ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached photos and sketch

Response to RFI T-0031 requested additional information.

1. See the attached pictures for the information known about the lights that were removed.
2. The existing conduit is 3/4"
3. Attached is a sketch and a photo showing the approximate location of the existing conduit.

There is one existing conduit on the south side of the wall protruding from the soil coming from the basement wall. The electrical conduit is approximately 6 feet east from the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We note that the Contractor has installed new electrical conduit and outlet boxes within the new concrete wall.

To document the as-built conditions of all work and to verify conformance with all applicable codes and standards, Contractor shall submit drawing(s) illustrating full routing of all conduit(s), including alignment, conduit material type, couplings/fittings, outlet boxes, etc. Drawings shall detail the connection between existing electrical line and new electrical line and connection between new electrical line and new lights/fixtures.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

western transformer vault vent opening. Attached you can see the pictures of this conduit that is currently sticking out below the scaffolding planking.

4. Please advise the location and mounting details for the new lights.

Drawings shall be sufficiently detailed to document all electrical work is in conformance with all applicable codes and standards, and shall be sufficient for permitting and/or inspection of electrical work.

All conduit and/or boxes shall be set so as to provide minimum 1¿ clear from all rebar, anchor bolts or other embedded structural steel items. Outlet boxes located in new concrete wall shall be fully coordinated for direct connection with the new light(s)/fixture(s).

It is our understanding that the existing 301 Mission driveway/roadway section (approximately 3¿ paver over 1¿ sand bed over 4¿ to 8¿ concrete topping slab) does not allow use of new lights/fixtures matching original lights/fixtures. It is recommended use of the Ligman Paragon square 186mm (50338-N-35) light/fixture, or approved equal, in lieu of the original light/fixture (Hydrel M9410). The new Ligman Paragon square light fixture (or equivalent fixture) shall be placed adjacent to new concrete wall and shall be mounted exposed above ground (not in ground) with the base of new light fixture located aligned to top of paver(s). See attached coordination sketch.

Please confirm the use of Ligman Paragon square 186mm (50338-N-35) light(s)/fixture(s) can be fully coordinated with all work.

See attached product data for Ligman Paragon square 186mm (50338-N-35) light/fixture.

In addition, in response to item 2 of RFI No.T-0031, Contractor please coordinate with 301 Mission Building management to ensure that the new light shall be connected correctly to the existing power supply.

T-0031.2	**301 Mission Wall - Light Fixtures**	**Closed**	**06/29/2011**	**07/09/2011**	**07/13/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Attached light specs

Per field conversations with 301 Mission staff, the light fixture proposed in response to RFI T-0031.1 is not acceptable. Webcor-Obayashi has coordinated with 301 Mission management personnel and the lighting attachment to this RFI has been requested by 301 Mission. Confirm that the attached light specs are to be installed at the stucco slot locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

URS provided four lighting options to Webcor-Obayashi on April 22, 2011 to coordinate with 301 Mission management personnel. It is noted that the lighting attachment to this RFI (Allscape BL-81) is similar to one of the four lighting options provided by URS (Allscape BL-80).

The Allscape BL-80 model (with 39 watt/240 volt, metal halide lamp and prismatic tempered glass lens) was selected by URS because it provides photometric qualities and operating electrical amperage comparable to the original lighting fixture (Hydrel M9410, 35 watts/277 volt, metal halide lamp).

It is noted that the lighting attachment to this RFI, Allscape BL-81 model (with 150 watt/277 volt, metal halide lamp and prismatic tempered glass lens) may provide photometric qualities and operating electrical amperage not similar to the original lighting fixture. It is also noted that the Allscape BL-81 model luminaire is 14.5" wide, which is greater than the 14" width stucco slot(s) specified in the contract documents.

Prior to order and/or installation of the lighting attachment to this RFI (Allscape BL-81, 150 watt/277 volt metal halide lamp) Contractor to confirm the following;

301 Mission building existing electrical circuit/feed that is to be used is sufficient to handle electrical load required by the Allscape BL-81, 150 watt/277 volt metal halide lamp(s);
14.5" width of the BL-81 luminaire(s) can fit within the stucco slot(s) constructed, note contract documents specify 14" wide stucco slot(s); and
photometric qualities of 150 watt lamp (e.g. lighting intensity/brightness) is acceptable to/preferred by 301 Mission management personnel.

T-0032	**301 Mission Screen Wall - Tie Beam Below Grade Conection to Screen Wall**	**Closed**	**02/09/2011**	**02/19/2011**	**02/23/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Attached photo

See attached picture of 301 Mission Screen Wall construction in progress. This picture was taken Nov of 2008, and shows a lateral support tie beam below grade connected to each vertical steel member of the screen wall. These tie beams are not shown on the plans and need to be cut so that the existing wall can be removed by others, as this scope is below and out of Transworld's contract. Please provide details for this condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE 02/16/2011 per David Fyfe

Tie beams shall be saw cut cleanly at exterior face of existing 301 Mission street basement perimeter wall.

Restoration of waterproofing is required.

Detail 1 on attached 301 Mission Street drawing S3-3.13 (rev 6, 04/04/2008) is the best available information at this time and has been provided for your information.

RESPONSE 02/23/2011 per Kevin Chiu

Pending approval by the TJPA, a CR will be issued.

T-0033	301 Mission Screen Wall - Concrete Demo Scope of Work Clarification	Closed	02/14/2011	02/24/2011	02/25/2011	Potentially ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference: attached text document

Please see attached text document explaining Transworld's request.

Transworld Construction requests that TJPA, Turner Construction, and Webcor-Obayashi make a final determination as to work scope based on the documents and discussions provided herein. It is Transworld's contention and belief that the 301 Mission wall relocation work scope does not require Transworld to remove the (e) concrete structure below the dark gray colored curb. For clarity see Exhibit D, page 1 and page 2.

Attached please see text explanation and Exhibits A, B, C, and D.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response from David Fyfe on 2/23/11:
Removal of element is in scope per contract documents, see detail B on sheet C-5000.

Response from John Adams on 2/24/11:
1. Demolition scope Utility Vault "foundation" to be demolished by Evans Bros see attached sketch C-5000 Detail A.
2. Existing "Concrete Slab" in accord with attached sketch C-5000 Detail B - this element is in scope and is to be removed by Transworld per C-5000 Detail B including concrete as shown.
3. Demolition scope "unforeseen grade beam" to be severed by Evans Bros see attached sketch C-5000

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
			Detail B.				

T-0034 | **301 Mission Screen Wall - Change of walkway from original logistics** | **Closed** | **02/14/2011** | **02/24/2011** | **02/22/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

The conditions of the worksite have changed significantly from what Transworld originally bid and have changed the entire logistical plan for the execution of this contract work. The original logistics plan, as well as the contract documents, show a walkway along the South side of the original existing screen wall. Now, the entire walkway has been removed and nothing exists except an open pit. Please see all four pages of Exhibit A that is attached to this RFI. This change of condition affects Transworld's ability to execute the contract work. There is no longer available workspace to erect the structural steel and the South side finishes. This condition now requires a modification to our contract such that Transworld may use the parking/driveway on the North side of current barricaded area. The exact impact is not yet fully developed because there are ongoing discussions related to further demolition and removal of concrete structures that currently exist for our construction work. If the current and remaining working areas are further deteriorated by additional demolition, even greater challenges will arise. Transworld Construction requests reasonable accommodations for access to the worksite from the parking/driveway that is North of the currently erected temporary barricade wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

301 Mission Street driveway shall remain open to building tenants/occupants for through traffic at all times.

Per 2/17/11 field meeting, if coordinated with and approved by 301 Mission Street property owner in advance, one lane of driveway may be temporarily used short term by contractor for deliveries.

Contractor shall prepare and submit a Logistics Plan to the TJPA Representative and 301 Mission Street property owner for review and approval prior to use of driveway. At a minimum Logistics plan shall include the following;

- scheduled dates and duration of driveway use;
- traffic control plan/sketch (including extent of driveway to be used, proposed/required signs, barricades, flagmen, etc.); and,
- extent of temporary barricade wall dismantling and restoration.

Contractor shall provide all necessary traffic control measures (signs, barricades, fencing, flagmen, etc.) during use of driveway as directed by the TJPA Representative and/or 301 Mission Street property owner.

Contractor shall restore temporary barricade wall at end of each day if dismantled.

T-0035 | **BSE - Additional Trainbox Drawings** | **Closed** | **02/16/2011** | **02/26/2011** | **02/22/2011** | **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet S-3201 and Specification Section 31 55 00

BBII believes that they do not have enough detailed drawings of the Train Box to properly design a conflict-free bracing system. BBII states that the architectural sections A1-6000 through A1-6231 lack detail regarding dimensions of structural components (i.e. beams, walls, ramps and etc.). The only structural section BBII currently has is on S-3201 and there appears to be a beam running along C line, however that beam is not identified in the table.

BBII is requesting additional structural section and elevation drawings, specifically:
- A dimensioned longitudinal elevation of the entire trainbox, showing the most current location and depths of beams.
- Full cross section of typical trainbox as well as any other non typical section. Shown any cross slopes, high and low points of concrete.
- Detailed sections of the SW corner showing dimensions and elevations of any ramps or locations where there are on ground floor slabs.

BBII would prefer CAD files if possible, however hardcopies will work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The design of the permanent structure inside the shoring wall is in progress and subject to change. At 50% Construction Documents on December 20, 2010 an in-progress 3D REVIT Program Computer Model was issued to TJPA and TJPA shared this model with W/O for informational purposes on the progress of the permanent structure design. We suggest that for reference only, W/O review the possible locations for shoring struts with the in-progress 3D REVIT Program Computer Model. This 3D REVIT Program Computer Model provides more information than you would receive in the limited number of sections requested above.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0035.1	**BSE - Request Structure Section Drawings**	**Closed**	**03/15/2011**	**03/25/2011**	**03/23/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran

To: Turner Construction Compan Daphne Faulkner

Answered By: Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached sheet

As discussed in 03/09/11 TG03 Design Team meeting, AAI said they would provide sections of the trainbox structure if BBII indentified where to take the cuts. Below is a list and the attached shows where BBII would like these taken

CUT # - DESCRIPTION

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See the attached in-progress design documents at the requested locations. This information is being provided as reference information for use in determining possible locations for the shoring struts and is not issued as a construction document.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1.A - Full length section along Grid A
1.E - Full length section along Grid E
1.J - Full length section along Grid J unfolded along wall alignment
2 - Full width section at Column Line 3
3 - Full width section at Column Line 7
4 - Full width section at Column Line 10.5
5 - Full width section at Column Line 18 (CL First St)
6 - Full width section at Column Line 23
7 - Full width section at Column Line 26 (CL Freemont St)
8 - Full width section at Column Line 30
9 - Full width section at Column Line 34.5 (Beale St.)
10 - Section at "flare?"
11 - Section at "flare?"

Please provide either electronic 2D CAD files at for each section where BBII can dimension, or hardcopy drawings that are fully dimensioned.

T-0036 **BSE - Bracing Load Discrepancy** **Closed** **02/16/2011** **02/26/2011** **02/18/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Sheet GT-1110, Specification Section 31 55 00, and attached memo

Please see the attached memo from BBII's bracing design engineer, PB&A.

PB&A are finding more than a slight discrepancy between the bracing loads given in the tables of GT-1110 when compared to loads they calculated using the "design profile" earth pressured diagram as shown on the same sheet.

As required by note 6 on GT-1110, BBII is continuing their design with the forces given in the tables, however BBII feels it is prudent to note the variances.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See the attached reply.

Attached Response from ARUP - 02/18/2011 Kevin Clinch

The internal bracing system shall be designed to satisfy the criteria specified in the contract documents including the strut loads given in the tables on GT-1110.

Our review of the calculations included with the RFI was limited to that necessary to understand the Contractor¿s questions. The calculations have not been reviewed for conformance with the contract documents. A more complete review will be undertaken when the calculations are issued as a

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII requests confirmation that the forces given in the tables of GT-1110 are correct.

submittal. Additional calculation documentation and / or a meeting with the Contractor¿s engineer will be required for us to interpret the software output and to facilitate our review.

T-0037 **BSE - Request for Utility As-Builts** **Closed** **02/17/2011** **02/28/2011** **03/01/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets U-2021 to U-2023, U-4005

BBII is requesting as-built data for the phase 1 electrical ductbanks at First St. and Fremont St. BBII is particularly interested in receiving the coordinates, elevations, width and depths of the ductbank where they intersect the CDSM wall as shown on utility drawings U-2021 through U-2023

Additionally, BBII would like to receive more info on the phase 2 utilities shown in section X&Y on U-4005:
- What material are these ducts and are they encased?
- Can the spacing shown on U-4005 be shifted to accommodate bridge girder spacing?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Phase I electrical ducts as shown on the AECOM Relocation of Utilities Project (RUP) Plans sheets U-2020, U-2021, U-2022 and U-2023 on First and Fremont streets have been constructed or will be constructed by PG&E. AECOM has requested as-built information from PG&E on what has been constructed to date and will provide upon receipt.

Sections X and Y on RUP sheet U-4005 shows utilities in the proposed final locations following construction of the Transit Center substructure and permanent utility corridors on First and Fremont streets. Not all utilities shown need to be incorporated and supported by the interim bridge structures on First and Fremont streets.

Only PG&E and Verizon Phase II utilities need to be incorporated and supported from the interim bridge structure. The remaining utilities i.e. AT&T, TCG and PG&E "NIP" (PG&E New Bushiness) indicated in section, will be constructed following construction of the Transit Center substructure and permanent utility corridors.

PG&E has proposed steel conduit for the ducts to be supported by the interim bridge structures. Verizon has proposed PVC conduits.

Proposed modifications to utility alignments (horizontal and vertical) and conduit configuration may be acceptable upon review and acceptance by AECOM and the private utility. AECOM suggests a coordination meeting between BBII, AECOM and the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

private utilities to help facilitate the interim bridge and utilities support design.

T-0037.1 **BSE - Request for Utility As-Builts** **Closed** **03/24/2011** **04/04/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0037 and Sheets U-2020, U-2021, U-2022 and U-2023

Please provide BBI with as-built information from PG&E on what has been constructed to date, as mentioned in the response to RFI #T-0037

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

PG&E's substructure work on First and Fremont Streets is scheduled to be complete by April 28, 2011. PG&E will provide as-built drawings following completion of their work.

T-0037.2 **BSE - Request for Utility As-Builts** **Closed** **03/24/2011** **04/28/2011** **04/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0037.1

Please provide BBI with as-built information from PG&E on what has been constructed to date, as mentioned in the response to RFI #T-0037 and RFI#T-0037.1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see response to RFI #T0037.1. Asbuilts will be available once received from PGE. This issue has being denoted in the open issues log and does not require an open RFI to track the issuance of the asbuilts.

T-0038 **BSE - Shear Walls for Rebracing** **Closed** **02/17/2011** **02/27/2011** **02/22/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference response to RFI #T-0024, Sheet GT-1112, and attached drawing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti Response:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The response to RFI #T-0024 noted discussions that took place during the TG03 BSE Trade Subcontractor - Design Team Coordination Meeting, about utilizing the permanent shear wall as re-bracing during the train box build out.

Attached is a sketch showing a staged wall construction and strut removal sequence that BBII believes would eliminate the need for re-bracing along the SW Wall.

Is this sequence acceptable?

The conditions depicted in Stage 12 & 13 of sketch GT-1112 for shearwalls to be used as re-brace elements will cause overstressing of the mat slab and excessive movement of the Trainbox wall, and therefore, is not acceptable. Note however, that once the Lower Concourse slab is constructed and develops the design strength, the upper portion of the shearwall above the Lower Concourse slab can be used as re-braces. See attached SKS-0101 that illustrates the load path of the shearwall.

ARUP Response:

The use of the permanent concrete shearwalls as bracing is acceptable provided the design criteria specified in the construction documents is satisfied. This includes, but is not limited to, the bracing stiffness requirements. The effective stiffness of the shear walls will be affected by the stiffness of the permanent train box wall and mat slab and tiedowns.

The response to this RFI must include input from Thornton Tomasetti regarding the impact on the permanent structural elements.

T-0039 **301 Mission Screen Wall - Base Plate Dimensions** **Closed** **02/17/2011** **02/27/2011** **02/23/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: 2/S-5000, D/S-5000, attached sketches

See the 301 Mission Screen Wall drawings, specifically details 2 and D/S-5000. Is it acceptable to use a base plate with dimensions 14" x 14", in lieu of the 14" x 18" per plan below the HSS 10" x 10"? See attached sketches of proposed anchor bolt mounting options A and B. If acceptable, please choose the detail you prefer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Neither options A nor B are acceptable for the anchor bolt mounting system. Provide a base plate as detailed on S-5000 that has the dimensions of 14" by 18".

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0040	**BSE - Proposed Bracing Removal Sequence**	**Closed**	**02/22/2011**	**03/04/2011**	**02/23/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1112 and attached proposal

Attached is a proposed sequence for bracing removal that involves removing the two lower layers of bracing after the structural slab and fillets are poured. BBII's shoring designer has done analysis at each stage of construction (see attached). The results show that removal of the two lower levels after the slab has been poured produces less deflection than the fully excavated condition. The results are summarized for case west and case east on page 18 and 36 respectively.

BBII believes this proposed sequence provides a tremendous value to the overall project by:
- Eliminating the coordination between the bracing and concrete trade subcontractors during the construction of the lower walls and concourse slab
- Eliminates a horizontal construction joint in the lower wall which significantly reduces construction cost and duration.
- Allows for better waterproofing product, by eliminating a construction joint and reduces patching of the membrane around shoring elements
- Allows for unobstructed construction of the lower walls and soffit shoring of the concourse level slab, which also reduces construction cost and duration

BBII is requesting evaluation by TJPA's design team to determine if this sequence is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The question in this RFI is a substitution request and should be submitted following the appropriate procedures outlined in the specifications.

Considerable time and coordination between the design team members is required to properly evaluate the suggestion. Arup will continue to study the issue. We understand it will be a topic of discussion at the March 1 TG03 BSE Subcontractor - Design Team Coordination Meeting.

T-0041	**BSE - COR and PCO Forms**	**Closed**	**02/23/2011**	**03/05/2011**	**03/16/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Spec. Section 00 07 00, 6.03E,

Per section 00 07 00, 6.03E, BBII requests for the form as mentioned to be supplied by TJPA, preferably in editable electronic format.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There are no forms provided by TJPA. Webcor/Obayashi has established an acceptable summary cover sheet for change proposals.

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30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0042	**301 Mission Screen Wall - Elevation of concrete wall**	**Closed**	**02/24/2011**	**03/06/2011**	**03/10/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Please clarify the following information regarding the field elevation of the new concrete wall. Detail A/S-4000 indicates that the concrete foundation wall height shall be +/- 2'- 2" to 2'- 8". Based on this reference the tallest part of the concrete wall will be the East point of the wall. The height of the wall will then decrease as the wall moves west towards Fremont St. (the west side). If we use a wall height of 2'- 8" at its tallest point (the east side), that would result in a wall height of 20.5 inches at Fremont Street (the west end). This is less than 2'-2" as indicated in the contract drawings; therefore please confirm that Transworld will be building a concrete wall height between 20.5 inches to 2'- 8". As a point of comparison, the original existing screen wall had this exact same dimension of 20.5 inches at the low and 2'- 8" at the high.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

New concrete wall height of 20.5" above the existing embed plate on west end is not acceptable.

Contract documents show the new concrete wall height varies from 2'-2" +/- to 2'-8" +/-. This is based on the driveway elevations shown on the existing plans provided by Millennium Partners, developer for 301 Mission Street, and allowing for a code required minimum 18" high concrete wall from top of paver/driving surface for vehicle safety. As noted on A/S-4000, "Top of (E) Vault Wall Elevation may Vary, Contractor to VIF, Adjust Concrete Wall Accordingly", please adjust top of concrete wall to be minimum 18" above top of paver/driving surface (approximately 2'-4" +/- to 3'-4" +/- in wall height).

See attached coordination sketch.

T-0043	**301 Mission Screen Wall - Temporary Vault Plug at Utility Vault Opening**	**Closed**	**02/25/2011**	**03/07/2011**	**03/23/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Regarding the transformer vault plug as shown on page C-5000; Transworld has been asked to submit some proposals as to how a plug should be installed. The original existing ventilation for the vault was open to the air at the original planters. This original ventilation was completely open and secured only by a metal grate to prevent access, but not water or air. As located on page C-5000, Transworld construction proposes to install 2 x 4 backing studs attached to the left and right vertical walls of the existing opening. These 2 x 4 backing studs will be adhered with powder actuated nails. Spanning across the backing studs Transworld construction proposes to install two 2 x 4 crossmembers which will be nailed to the 2 x 4 backing studs. This assembly can be seen in the attached pictures pages 1 and 2.

The assemblly noted above is option 1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor shall provide the transformer vault plug based on the Option 4 solution with the following amendments;

1. Provide 2x4 cross members at max. 12" o.c. spacing;
2. Face of all 2x4 members shall be flush with outside face of existing vault wall to facilitate extension of plywood sheet beyond ventilation opening (see number 5 below);
3. Plywood sheet shall be two layers of 5/8" for a total of 1.25" thick, laminate plywood layers with waterproof adhesives;
4. Secure plywood to 2x4 members with galvanized nails or screws at min. 6" spacing;
5. Extend plywood sheet min. 6" beyond edge of ventilation opening (all four sides); and,

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Option 2- Added additionall 2x4 crossmembers which would further restrict air flow to the (e) vault.
Option 3- Nail on a plywood sheet that would enclose the entire vault vent opening.
Option 4 - Nail on a plywood sheet and waterproof the plywood to prevent water intrusion as well.

Note: Transworld Construction is concerned about restricting airflow into a vault that originally was designed to have this open vent. We are not familiar with any impact sealing this vent will have on the existing equipment.

6. Seal perimeter of plywood sheet and existing concrete vault wall with appropriate sealant to ensure weather tightness (all four sides).

In addition, Contractor is required to ensure sufficient air flow is provided to existing underground vault/electrical equipment at all times. Existing ventilation openings (one per vault) shall not be plugged until new ventilated manhole covers per C-5000/C-5001 are installed. The new ventilated manhole covers must be protected from damage and/or soiling from concreting activities of the adjacent stem wall. The existing ventilation openings must be plugged prior to start of BSE activities to restrict entry of water and/or construction debris into the existing underground vault/transformer spaces.

T-0044 **BSE - Pile Mat Slab Connection** **Closed** **02/25/2011** **03/07/2011** **03/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet S-3003

Reference Detail 2 on S-3003 - "Slip Detail @ Trestle Pile Mat Connection"
Please confirm that this detail only applies to the trestle and not the bridge as stated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT Reply: The trestle supports the bridge, therefore detail 2/S-3003 does apply to the bridge.

T-0045 **301 Mission Screen Wall - Void Below Existing Embed** **Closed** **03/02/2011** **03/12/2011** **03/17/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached pictures

The new 301 Mission screen wall location is to be laid out

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Voids below the existing embed plate shall be filled by use of grouting applied by use of low pressure grouting methods to deliver grout into void spaces.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

over an existing embed plate. At that plate #8 rebars are to be epoxied per RFI T-0027. Currently in the field the embed has been cut where the dowels are to be installed and holes are being drilled to the required 30" depth. It has been discovered that there are voids below the exitsing embed plate of up to 1.5". See attached pictures for some locations where this condition occurs. Please advise if this void is to be filled.

The result following grouting shall be that all voids are fully grouted. All grout materials shall be non-shrink grout. Pressure grouting shall be performed by qualified personnel who have experience in low pressure grouting steel plates. Contractor shall submit qualifications in the form of resumes identifying project experience utilizing low pressure grouting for personnel performing the work.

The Contractor shall provide a submittal identifying the non-shrink grout mix proposed for use and a narrative providing a full description of the means and methods proposed to result in grout flow from input point to output point including methods to result in prevention of trapped air (air is to be displaced by grout flow). A narrative describing means and methods shall specifically include identification of proposed equipment and the proposed porting and venting to allow installation of non-shrink grout and displacement of trapped air.

Where the embedded plate is not continuous (where the plate is not provided), the existing concrete surface shall be prepared meeting all requirements of a bonded construction joint.
- David Fyfe 03/16/2011

==========Additional Response==========
Pending approval by the TJPA, a CR will be issued.
- Kevin Chiu 03/17/2011

T-0046 **BSE - CLSM Slump** **Closed** **03/03/2011** **03/13/2011** **03/07/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Specification Section 03 30 01

The CLSM slump range for the Buttress Shoring Excavation Work is listed between 10" to 12". BBII has

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

03/03/2011 Kevin Clinch

ARUP Response - A CLSM mix with a slump range of 7" +/- 1" is acceptable pending our review of the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

concerns about the CLSM mix segregating during placement with such a high slump. Please confirm if it is acceptable to provide a CLSM mix with a slump range of 7" +/- 1" in lieu of the 10" to 12" called for in the Specification.

Contractor's mix design. Arup will work with the Owner's Testing Agency to refine the Field Quality Control procedures for checking slump and segregation of the CLSM.

T-0047 **BSE - Joint Preconstruction Survey** **Closed** **03/03/2011** **03/13/2011** **03/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 15 40 and attached list

Attached is the list of buildings that BBI has identified for joint survey, in accordance with specification section 01 15 40. BBI requests confirmation of this list.

Please provide BBI a contact for coordinating the joint survey effort. BBI would like to do this work on the week of March 14, 2011.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup has been, and will continue, performing interior preconstruction surveys at the properties listed by BBI. Arup will share the information with contractors as it becomes available. A representative from BBI may accompany Arup at the remaining site surveys. Contact Stephanie Reichin 415.227.9700 for a schedule of the remaining site visits.

T-0047.1 **BSE - Preconstruction Joint Survey Exteriors of Buildings** **Closed** **03/21/2011** **03/31/2011** **03/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0047 and attached email

Please confirm the exterior of the building, in accordance with item 1.5 D in the specification 01 15 40 Joint Survey, is also covered by the response of RFI T-0047 as well as the interior of the building.

If not, please contact "property owners within 25 feet of the construction excavation" and arrange the joint survey immediately.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response to RFI T-0047 was specific to the query posed relating to the preconstruction survey of adjacent building interiors (basements) that Arup is conducting and the feasibility for the contractor joining Arup for any future visits.

For the pre-construction joint-examination and photographing of adjacent building exteriors per 01 15 40 - 1.5.D, please coordinate with Turner (CMO), who will coordinate with Singer Assoc, TJPA's outreach consultant, to invite and/or coordinate the possible attendance of adjacent property owners. Please

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submit a list of properties and planned schedule of the examination/photography activities ASAP for record and for coordination.

T-0048 **BSE - Building Demolition in Zone 1** **Closed** **03/03/2011** **03/13/2011** **03/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference CR-T-005 and Sheet SKGT-0001-R1

CR T-005 appears to require additional building demolition. Please provide a schedule for this demolition work and an estimated completion date as this will potentially impact BBI's schedule and work sequence.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The "Eminent Domain" legal process is incomplete at this time - estimated completion date is 5/29/11. Therefore the demolition contract for 60 Tehama, 85 Natoma, 564 Howard and 568 Howard has not been issued and a schedule cannot be provided. The estimated demolition completion date is between 7/29/11 and 8/29/11.

T-0049 **BSE - Constructware** **Closed** **03/03/2011** **03/13/2011** **03/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 10 40

Specification Section 01 10 40 Article 1.6 B4 states: "TJPA will provide Trade Subcontractors with the necessary training and access to Constructware"

BBI would like to schedule this training and make arrangements for access. Please provide a contact to get this process started.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Trade contractors will be given "View Only" access to Constructware. Contact Turner to schedule access and training. W/O is still responsible for managing the information flow to and from their trade contractors. TJPA will not accept information entered by trade contractors. All trade RFIs and submittals are to be reviewed by W/O prior to submission to TJPA.

T-0050 **BSE - Revised Plans for CR T-005B** **Closed** **03/07/2011** **03/17/2011** **03/14/2011** **Potentially** ☐

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30100 - Transbay Transit Center Project

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From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Daphne Faulkner
Answered By: Turner Construction Comp Daphne Faulkner

REQUEST:

Reference CR T-005B

As BBII has explained at the TG03 Trade Subcontractor - Design Team Coordination Meeting No. 3, held on February 23, 2011, in order for BBII to provide meaningful pricing and make preparations to order materials that will be required for the changed work, BBII is respectfully requesting revised contract documents for all work that is impacted by this change, specifically including, but not limited to, geotechnical and demolition drawings.

These drawings will allow BBII to accurately identify the changes and provide pricing that complies with Section 6 of the General Conditions.

In addition, due to increasing steel prices and long lead times, BBII proposes a revision to CR T-005B to allow for the ordering of additional shoring wall beams prior to the rest of the Change Order being negotiated. BBII believes this will reduce the overall cost of this change. Upon receipt of the revised drawings that include the new shoring wall beam table (GT-5101), BBII will be able to receive quotes for this work and finalize an order.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

URS will issue a revised D-2200 drawing this week.

03/10/2011 - George Metzger

Some parts of the question need to be answered by URS/PMPC/TJPA/Turner.

ARUP Response:

Arup's response regarding the request for geotechnical drawings and the soldier pile schedule is as follows: the "CDSM Shoring Wall Schedule" on GT-5101 does not change. The wall segments shown on the plan were simply extended to include the increased wall length. It is possible that the top of wall elevation may change +/- 1 ft once the finish grade is established following demolition of the buildings. The length of the soldier pile and the depth of the drilled hole from the ground surface will not change from that shown on the schedule.

In addition to GT-2101 which was issued as SKGT-0001-R1 in response to RFI-017, the change order will include the following drawings: GT-0000 (the drawing index will be clouded to show the affected drawings); GT-0100, GT-1110, GT-2000 (the shoring wall layout will be revised as shown and detailed on SKGT-0001-R1); and GT-5105 (the sections at 564 and 568 Howard will be deleted as these buildings will be demolished; a section will be added at 580 Howard showing the approximate distance to the building corner). Aside from the changes to GT-2101 which have been issued as SKGT-0001-R1, We consider the above described drawing changes to have no cost impact and therefor have not yet been issued.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0051	Returned Submittal Comments	Closed	02/16/2011	02/26/2011	03/10/2011	Potentially	☐

From: Webcor Construction LP Daniel Foudy
To: Turner Construction Compan Daphne Faulkner
Answered By: Turner Construction Comp Daphne Faulkner

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Ref Spec section 01 13 10

According to the Action and Distribution (section 1.11) of the submittal specifications, Submittals shall be returned indicating one of the following:

No Exceptions Taken

Make Corrections Noted

Revise and Resubmit

Rejected

We have received submittals back as "Not Reviewed" or "For Record Only". Please confirm these responses are acceptable and should be incorporated into the specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

These responses are acceptable and will be incorporated into a revised specification section 01 13 10 to be issued in the future.

T-0052 **BSE - P Parcel** **Closed** **03/09/2011** **03/19/2011** **03/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 14 19, 1.4

According to the referenced specification section, Parcel P is available as of November 1, 2010 and will be available until 2013. BBI was informed that this parcel will not be available for this contract.

Please confirm.

If this parcel is not available, are there any alternative parcels that will be available for construction staging?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Parcel P is available for Webcor-Obayashi use in accord with Spec. 01-14-19 - see attached sketch for shared use with TJPA.

T-0053 **BSE - Waler Standoff** **Closed** **03/09/2011** **03/19/2011** **03/14/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1110, RFI #T-0018, and attached photos and drawings

Previous RFI #T-0018 - BSE - Waler to CDSM Wall spacing addressed BBI's concern with only having 6" clear between the face of the CDSM Wall and the Waler. Conversations in the weekly TG03 BSE Design Team Coordination meetings have re-raised the issue and BBI believes it requires additional consideration. The response in RFI #T-0018 said that rebar couplers in the wall verticals (in the next contract) would be used to eliminate the conflict. BBI believes that this seems to be impractical and not cost effective for over 3000 lf feet of wall and 4 levels of walers. Providing a standoff equal to the wall thickness would be an additional cost to the BSE contract, but BBI believes it would be minor compared to dealing with the cost to deal with the conflict later.

BBI is requesting to please re-evaluate and provide direction.

Attached is a suggested detail as well as examples where it has been used before, for your consideration.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Provided the criteria shown in the Contact Documents is satisfied, the proposal is acceptable.

Additionally:

Provided this proposal is acceptable to the TJPA, the internal bracing design submittal shall include the details and calculations associated with this proposal.

The soldier piles shall be checked for the increased moment due to the eccentric strut reaction. This check shall be reported in the internal bracing submittal.

No increase in torsional loading on the soldier pile is permitted.

End of Comments

T-0053.1	BSE - Waler Standoff	Closed	03/09/2011	03/19/2011	03/22/2011	Potentially ☐

From: Webcor Construction LP Nhi Tran

To: Turner Construction Compan Daphne Faulkner

Answered By: Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1110, RFI #T-0018, and attached photos and drawings

Previous RFI #T-0018 - BSE - Waler to CDSM Wall spacing addressed BBI's concern with only having 6" clear between the face of the CDSM Wall and the Waler. Conversations in the weekly TG03 BSE Design Team Coordination meetings have re-raised the issue and BBI believes it requires additional consideration. The response in RFI #T-0018 said that rebar couplers in the wall verticals (in the next contract) would be used to eliminate the conflict. BBI believes that this seems to be impractical and not cost effective for over 3000 lf feet of wall and 4

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

REVISED RESPONSE TO RFI #T-0053

TJPA revises response to as follows:

The W/O and BBI proposal to increase the spacing between the waler and CDSM wall is acceptable to TJPA since it meets the requirements in 31 55 00 1.5 DESIGN subsections I, J, K, L, and M. This design is for Contractor use. This proposal from the Contractor creates multiple benefits for W/O and BBI including The waler is out of the way of the rebar and this will help W/O with their coordination with the Train Box concrete work subcontractor.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

levels of walers. Providing a standoff equal to the wall thickness would be an additional cost to the BSE contract, but BBI believes it would be minor compared to dealing with the cost to deal with the conflict later.

BBI is requesting to please re-evaluate and provide direction.

Attached is a suggested detail as well as examples where it has been used before, for your consideration.

W/O benefits since more rebar can be installed with this increased spacing which saves time to the schedule and costs associated with the waterproofing and rebar installations.
BB benefits because it appears that there is a decrease to the number of times that struts and walers must be moved.
BB benefits in that strut length remains essentially the same when restrutting after Train Box wall sections are completed.

TJPA and the Program Management Team suggest that W/O and BB proceed with a 3' - 6'' spacing or whatever dimension is necessary to insure that the walers are not within the Train Box Wall profile. If the walers position requires rework, the Contractor and SubContractor take full responsibility to meet design requirements with no change to contract cost.
TJPA agrees to this suggestion from the Contractor to offset the waler from the CDSM wall to allow for the construction of the Train Box wall. TJPA requests that the Contractor proceed on this issue as a no-cost resolution to these RFIs. If W/O finds that this Internal Bracing for Shoring Wall design does have an additional cost to TJPA, the funds will come from the CM/GC Contingency Fund.

T-0053.2 **BSE - Waler Standoff** **Closed** **03/09/2011** **03/19/2011** **03/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1110, RFI #T-0018, and attached photos and drawings

Previous RFI #T-0018 - BSE - Waler to CDSM Wall spacing addressed BBI's concern with only having 6" clear between the face of the CDSM Wall and the Waler. Conversations in the weekly TG03 BSE Design Team Coordination meetings have re-raised the issue and BBI believes it requires additional consideration. The response in RFI #T-0018 said that rebar couplers in the wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA and Program Management Team expect that the Contractor and Sub-Contractor meet the design requirements for the Design/Build of the Internal Bracing as specified in 31 55 00 INTERNAL BRACING FOR SHORING WALL and per the Contract Drawings. As subsection 1.8 M. states,

"Walers are to be placed against the shoring wall on spacers to provide a minimum of 6 inches of clearance between the waler and the shoring wall.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

verticals (in the next contract) would be used to eliminate the conflict. BBI believes that this seems to be impractical and not cost effective for over 3000 lf feet of wall and 4 levels of walers. Providing a standoff equal to the wall thickness would be an additional cost to the BSE contract, but BBI believes it would be minor compared to dealing with the cost to deal with the conflict later.

BBI is requesting to please re-evaluate and provide direction.

Attached is a suggested detail as well as examples where it has been used before, for your consideration.

The 6 inch clearance is to provide a continuous path to allow the outboard curtain of reinforcement of the permanent wall to be routed through this space without requiring use of couplers or added lap splices at walers..."

The Submittal for Internal Bracing needs to address the concerns expressed by the reviewers including Arup in their response to RFI T-0053 which states:

"Provided the criteria shown in the Contact Documents is satisfied, the proposal is acceptable.

Additionally:

Provided this proposal is acceptable to the TJPA, the internal bracing design submittal shall include the details and calculations associated with this proposal.

The soldier piles shall be checked for the increased moment due to the eccentric strut reaction. This check shall be reported in the internal bracing submittal.

No increase in torsional loading on the soldier pile is permitted."

T-0054 **BSE - AC Overlay at Temporary Bridges** **Closed** **03/09/2011** **03/19/2011** **03/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13, 1.3.A.6 and attached material information

For the temporary bridges, BBII will be using the attached structural bridge deck material from Big R Bridge. The troughs are filled completely with AC to the top of the decking, and an overlay will be applied over the top. BBII would like to use a 2" minimum overlay, resulting in an overall cross section with an average 4" thickness. Bridge geometry requirements specified in section 01 53 13 - 1.3.A.6 will be met without reducing the overlay thickness

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

2" minimum asphalt concrete (AC) overlay not acceptable. Provide minimum of 4" asphalt concrete (AC) overlay per contract documents (specification section 01 53 13, 1.3.B.3).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

below the 2" minimum.

Please confirm this is acceptable.

T-0055 **BSE - Request for Soil Parameters** **Closed** **03/09/2011** **03/19/2011** **03/14/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1110 and Specification Section 31 55 00

In the TG03 BSE Design Team Coordination meeting held on 03/09/2011, Arup said they would provide BBII with soil input parameters for use in BBI's model.

Please provide BBI with this information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Summary tables of the soil properties used in Arup's PLAXIS analysis are attached.

T-0056 **BSE - CR T-006** **Closed** **03/09/2011** **03/19/2011** **03/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference CR T-006

The Change Request documents do not indicate who will have the maintenance responsibility for the AC walkway.

BBII has the following questions:
1. Should BBII include pricing for maintenance?
If this walkway is going to get placed on top of the 3" minus rubble, a fair amount of maintenance would be required.
2. When is this walkway scheduled to be constructed? And if maintenance is needed, when would it start?
3. Are the typical fence and K-rail shown in the section the same ones that are protecting the perimeter, or an additional row that creates a walkway that has both sides fenced, protecting the public from construction and vehicle

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is not an RFI. W/O has control of the site and is to coordinate maintenance duration with their subcontractor for pricing.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

traffic?

BBII needs to have this information in order to provide accurate pricing for this Change Request T-006. Please advise.

T-0056.1 **BSE - CR T-006** **Closed** **03/24/2011** **04/03/2011** **04/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI T-0056 and CR T-006

Please confirm that any necessary repairs of the AC overlay are excluded from CR T-006 scope as discussed at the TG03 BSE - Design Coordination Meeting on 3/23/2011. Also, please provided additional sketches we discussed at the meeting as well. Finally, please provide a complete copy of Demo Contractor¿s change order related to CR T-006 to fully understand the limits of their responsibility.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CM/GC is responsible for maintenance of site - including these sidewalks- debris, cleaning, graffiti etc. as specified in contract documents.

The AC overlay was installed by Demolition Contractor per RFI 24.2. The basements were filled per contract using crushed concrete, compaction methods were used by EBi and verified by ISI Special Inspector. The AC overlay was installed per RFI 24.2 with asphalt applied no less than 3" thick.

However, the CM/GC's concern is related to the required repair if there is a failure of this asphalt. If there is a failure of the AC overlay (if caused by pedestrian traffic on this sidewalks- not construction equipment), then this should be brought to the attention of TJPA Rep at that time in accord with contract.

Demo RFI 24.2, EBi Proposal drawings and Change Order attached.

T-0057 **BSE - Verticality and Sonic Testing on Drilled Piers and Shafts** **Closed** **03/10/2011** **03/20/2011** **03/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202 and Specification Section 31

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

63 29

Specification Section 31 63 29, 3.8.I.3 states "The contractor shall perform a test to determine verticality of the steel tubes, or drilled holes, that are going to be used for the sonic tests."

BBII has been advised by a number of testing firms that verticality tests cannot be performed on steel tubes or PVC tubes tied to steel cages. Detail 12 on Drawing GT-5202 shows 4 equally spaced PVC or steel tubes tied to reinforcing steel cage. BBII has also been informed that, as of now, there is not a specification in existence that mentions vertical tolerances of CSL tubes.

BBII is proposing to do the following in lieu of formally testing the CSL tubes for verticality:
1. BBII will make sure that the tubes are parallel and symmetrically placed. The cages and tubes will be properly inspected for positioning, spacing, parallelism prior to placing the cages into the hole. This is the most important inspection to ensure accurate CSL results.
2. Since the tubes are tied directly to a vertical cage, and the cages and casings are tested for verticality anyway, BBII will do a visual inspection to ensure that the tubes are sufficiently "vertical" for CSL testing purposes prior to placement of tremie concrete.
3. BBII will make sure that the cages are carefully lifted in a manner that limits the deflections of the cage to ensure that the CSL tubes do not fail at the joints.

Please confirm if this is acceptable.

The verticality of the holes / tubes must be checked to properly interpret the CSL test results. If verticality tests cannot be performed on steel tubes, consider using PVC tubes. The integrity of the PVC tubes can be maintained by filling them with water and inserting alignment bars into them prior to concrete pouring.

T-0058 **BSE - Underground Utilities Removal on Beale Street** **Closed** **03/11/2011** **03/21/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2230

Per Drawing D-2230 Note 2, "Unless specified otherwise all utilities to be removed have already been cut and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Beale Street Utilities PGE and ATT. Substructure installation and work is incomplete. Work is scheduled to complete by 5/30/11. Cabling/cutovers & pressurizing gas pipe forecasted to be complete by

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

capped outside limits of work by Transbay Transit Center Program Relocation of Utilities Project including future utilities installed by the Transbay Transit Center Program Relocation of Utilities Project. Contractor to coordinate removal of utilities with TJPA representative."
Please confirm that the work described in Note 2 has been completed for all underground utilities on Beale St.
If work has not yet been completed, please provide a list of utilities not yet abandoned and dates when the said utilities are to be cut and capped.

6/30/11. ATT will finish in this window also.

***** These dates are subject to change due to weather, operational issues and any conflicts outside the control of PG&E******

Beale St. Webcor-Obayashi: Relocation of Utilities project will provide the completion dates for utilities on Beale St.

T-0059 **BSE - Underground Utilities Removal on Fremont Street** **Closed** **03/11/2011** **03/21/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2230

Per Drawing D-2230 Note 2, "Unless specified otherwise all utilities to be removed have already been cut and capped outside limits of work by Transbay Transit Center Program Relocation of Utilities Project including future utilities installed by the Transbay Transit Center Program Relocation of Utilities Project. Contractor to coordinate removal of utilities with TJPA representative."
Please confirm that the work described in Note 2 has been completed for all underground utilities on Fremont St.
If work has not yet been completed, please provide a list of utilities not yet abandoned and dates when the said utilities are to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Fremont Street PGE Final conduit installation scheduled to be complete 4/11/11. Cabling and cutovers forecasted to be complete by 6/4/11.

***** These dates are subject to change due to weather, operational issues and any conflicts outside the control of PG&E******

Fremont St. Webcor-Obayashi: Relocation of Utilities project will provide the completion dates for utilities on Fremont St.

T-0060 **BSE - Underground Utilities Removal on 1st Street** **Closed** **03/11/2011** **03/21/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2230

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

First Street - Substructure installation scheduled to complete by 4/30/11. Cabling and cutovers forecasted

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per Drawing D-2230 Note 2, "Unless specified otherwise all utilities to be removed have already been cut and capped outside limits of work by Transbay Transit Center Program Relocation of Utilities Project including future utilities installed by the Transbay Transit Center Program Relocation of Utilities Project. Contractor to coordinate removal of utilities with TJPA representative."
Please confirm that the work described in Note 2 has been completed for all underground utilities on 1st St.
If work has not yet been completed, please provide a list of utilities not yet abandoned and dates when the said utilities are to be cut and capped.

to be complete by 6/24/11

***** These dates are subject to change due to weather, operational issues and any conflicts outside the control of PG&E******

First St. Webcor-Obayashi: Relocation of Utilities project will provide the completion dates for utilities on First St.

T-0061 **BSE - Concerns About Pile To Mat Slab Connection** **Closed** **03/15/2011** **03/25/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet S-3003 and attached detail

BBII has concerns that the trestle pile to mat slab slip connection as shown in detail 2 on S-3003 will not work as intended. Based on BBII's understanding that this joint is intended to allow the mat slab to deflect upward and our limited knowledge of the permanent structure design, BBII has listed some concerns with this connection below:
1. BBII does not think the sleeve will be able to slide with the bolts and slotted holes completely encased in concrete. (see attached)
2. If the slab does deflect upwards and the lower section of pile is no longer in contact with the bearing plate, then the mat slab is carrying the entire load on the pile.
3. Any upward movements of the slab will affect the trestle supper structure framing. Differential upward deflections could cause damage depending on severity.

BBII does wish to bear the risk of re-designing this joint due to the interaction with the permanent structure, however BBII has attached a suggestion that they feel would eliminate some of their concerns listed above.

Please provide a revised detail or rebut BBII concerns if

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti response:

Comments in response to BBII concerns:

1. Bolts/slotted holes could be isolated from the concrete via styrofoam blocks.

2. Anticipated slab movement upward is due to rise of groundwater pressure after the dewatering pumps are turned off - which is after structure is completed and trestle work is completed.

Comments regarding proposed alternate detail:

1. Proposed detail does not address waterproofing at bottom of mat and allows water infiltration into the mat as currently presented.

AAI Response: Alternate detail will not satisfy waterproofing requirements.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

you still believe the detailed connection is the best suited for this application.

T-0062 **BSE - Concrete Submittals** **Closed** **03/16/2011** **03/26/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 00

BBII believes a number of the submittals listed under the Cast In Place concrete spec section are not applicable to the BSE package.
- 03 30 00-1.6.A.5 Joint Locations for Concrete Slabs to receive a terrazzo finish ¿ None of the concrete work in this package is to receive flooring.
- 03 30 00-1.6A.6 Preconstruction Survey - This is intended for locations where concrete interfaces with existing construction. The mud slab does not interface with existing concrete, and BBII is not anticipating using concrete at the temporary bridges.
- 03 30 00-1.6.A.7 Survey of Flat Plate or Flat Slab Concrete Floors - No flat plates included in the BSE package.
- 03 30 00-1.6.A.8 Survey of as-built floor conditions - This is applicable to finish floors only, which are not included in the BSE package.
- 03 30 00-1.6.A.8 Structural Repairs - BBII does not believe there is any structural concrete requiring repair procedures in the BSE package.
- 03 30 00-1.6.A.10 Patching defective concrete finishes - The concrete work in the BSE package is not finished or exposed concrete, so BBII does not believe patching procedures are necessary.

Please confirm that the above submittals are not necessary for the BSE contract.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti response:

Confirmed that the submittals listed in the RFI are not applicable for the BSE contract.

T-0063 **BSE - Request for Final EIS/EIR for Mitigation and Monitoring** **Closed** **03/16/2011** **03/26/2011** **03/21/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 35 65

BBII has been unable to obtain the report titled "Final EIS/EIR" dated November 29, 2007, as described in specification section 01 35 65, 1.1.A. The report requires the contractor to be responsible for mitigation measures and monitoring requirements that are included in the specification section.

Please provide BBII with this report.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A copy of Final EIS/EIR as referred in 01 35 65 is available in Constructware at the following location:

File Director - Programwide - 5 Program Coord - 10 Environmental - 11 EIS/EIR - EIS/EIS Transit Center - 2004 EIS - Original

A Constructware screenshot is attached for your information.

T-0064 **BSE - Demolition Contract Backfill Material** **Closed** **03/16/2011** **03/26/2011** **03/21/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference photos (attached)

It appears that the demolition contractor is leaving large unprocessed rubble along the backside of some of the basement walls (See attached photos). Per the demolition drawings included in BBII's contract, all of the material in this area should be crushed/processed concrete at 3" minus. Handling material that does not meet these requirements will be considered a changed condition. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The site Parcel E is in progress. The basement will be filled in accord with the contract drawings with crushed/processed concrete at 3" minus upon completion of work by the demolition contractor - contract completion date 4/7/11.

Please do not use RFI to ask a question of an area not yet completed by the Demolition contractor. Webcor-Obayashi the CM/GC or Turner Construction CMO can easily answer these questions over the telephone or via e-mail.

T-0065 **301 Mission Wall - Length of dowels in concrete wall** **Closed** **03/17/2011** **03/27/2011** **03/24/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Sheet S-5000, RFI T-0042

The response to RFI T-0042 specifies for the new concrete wall height to be exposed above the existing pavers a minimum 18". To achieve this requirement, the overall concrete wall height must be increased 8",

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Use of fabricated #8 bars with lenton terminator acceptable. #8 embedment bars shall be dowelled 30" into existing concrete vault wall per RFI T-0027.

Resulting distance from top of #8 embedment bars with lenton terminator to top of new concrete wall will

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

therefore also increasing the length of the dowels that are to be installed.
The #8 embedment bars have already been purchased and fabricated. To achieve the higher wall height per response to RFI #T-0042, 90% of these fabricated #8 bars will have to be scrapped and new bars with the longer length must be made.
As an alternative, would it be acceptable to still use the fabricated #8 embedment bars dowelled 30" into the wall per RFI T-0027, with the lenton terminator which would be set 32" above the (E) steel plate?

vary between approximately 3" - 9", verify in field. If resulting distance from top of #8 embedment bars with lenton terminator to top of new concrete wall is greater than 6", contractor shall install #4 U-bars at 12" on center. #4 U-bars shall be centered between the #4 ties on both sides of the #8 bar(s). #4 U-bar legs shall be 22" long.

See attached coordination sketch.

TJPA Representative to field verify all rebar placement prior to Contractor placing concrete.

T-0066 **BSE - Pile Survey for Buttress Area** **Closed** **03/21/2011** **03/31/2011** **04/04/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

It is BBII's understanding that EBI has completed their survey of the existing timber piles in the buttress area, including the area that was previously missed.

Please provide BBII with the remaining timber pile survey information, as indicated at the TG03 BSE Design Coordination Meeting.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Here is the remaining timber pile survey information.

It is expected that BBII will provide the TJPA a Credit since this survey scope was in contract Spec. 02-41-19 Para 1.4E

T-0067 **BSE - Joint Preconstruction Survey** **Closed** **03/21/2011** **03/31/2011** **03/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI T-0047

Based on recent discussions, BBII is requesting confirmation of their understanding of Specification Section 01 15 40:

1. The inside survey of the adjacent buildings will be performed by ARUP and ARUP is in the process of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Correct.

2. The 19 buildings listed by ASC for BBI are all included in the pre-construction survey list prepared by Arup (copy attached).

(note the 101 1st Street address listed by ASC should be corrected to 100 1st & 533 Mission)

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

performing these surveys. BBII will attend these surveys to the extent possible. ARUP will also provide monitoring of these buildings, including but not limited to, active crack monitoring. ARUP will make the initial survey and subsequent monitoring information available to BBII. BBII reserves its right to review this information and request to perform its own indoor survey at any of the surveyed buildings. ARUP is solely responsible for the accuracy of the information provided and the continuation of the monitoring effort. ARUP is also responsible for ensuring that the property owners concur with the surveying methods and the results.
2. The list of 19 buildings previously provided by BBII is accurate and is in conformance with ARUP's list.
3. The TJPA will arrange for a survey of the outside of these buildings with the attendance of the property owners. BBII will attend with its professional photographer as required by the Specifications.

3. Correct.

T-0067.1 **BSE - Joint Preconstruction Survey Follow-Up** **Closed** **02/06/2012** **02/16/2012** **02/15/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Arup Kevin Clinch **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

Per 01 15 40 and confirmed within RFI #T-067: ARUP is to provide monitoring information from adjacent buildings including but not limited to, active crack monitoring. ARUP will make the initial survey and subsequent monitoring information available to BBII. Please provide this information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup has provided the pre-construction surveys to the TJPA via the Architect. The Contractor's request will be addressed by the TJPA.

T-0067.2 **BSE - Monitoring Information for 545 Mission** **Closed** **02/13/2012** **02/13/2012** **02/16/2012** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Ref RFI T-0067 and T-0067.1

Please provide the monitoring information from 3/23/2011 through 11/01/2011 as agreed to in response to RFI T-0067.

George Metzger - ARUP Response: Arup has provided the TJPA, via the Architect, the reports and photographs documenting our visits which have been made at the request of the TJPA. The Contractor's request will be addressed by the TJPA.

Per Jack Adams of Turner Construction:

Contractor is directed to fulfill their contractual obligations and perform the work described in Specification Section 01 15 40 PROTECTION OF PROPERTY for all buildings adjacent to the Project.

Contractor will coordinate the Joint Survey to establish authenticity of claims by coordinating access and access dates with TJPA Representatives (Singer Associates).

T-0068 **BSE - Soil Encountered During Installation of Pile Removal Instrumentation** **Closed** **03/22/2011** **04/01/2011** **03/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

When ARUP was installing their pile removal instrumentation, they recorded the depths of the various soil layers they encountered.

Please provide BBII these depths for the pile extraction work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Soil log attached.

T-0069 **BSE - Revised Shoring Wall Layout Clarification** **Closed** **03/23/2011** **04/02/2011** **03/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

BBII believes there is an issue with some of the information provided regarding the revised shoring wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

layout.

The following information was provided on drawing SKGT-0001-R1:

- The (x, y) distances of the intersection of the LOL's of segments X1-1 and R2-1 (Point P on attached sketch) from the intersection of 1-line and J-line: (x, y) = (73'-2 1/4", 166'-4").
- The (x, y) distances of the radial center of segment R2-1 (Point C on attached sketch) from the intersection of 1-line and J-line: (x, y) = (490'-7 1/4", 640'-10 1/4").
 The radius of the LOL of segment R2-1 as 633'-6".

The distance between the point P and point C can be calculated with the above information:
 ΔX = 490'-7¼" minus 73'-2¼" = 417'-5" = 417.417
 ΔY = 640'-10¼" minus 166'-4" = 474'-6¼" = 474.521
 D = (ΔX2 + ΔY2)1/2 = (417.4172 + 474.5212)1/2 = 632.053'

Using the distances provided on SKGT-0001-R1 gives a distance of 632.053' between point P and C. This distance must be 633'-6" because it lies along segment R2-1 and the radius of the arc is given. There must be an error in either the radius or one of the other given dimensions. BBII requests an expedited response as this information is critical to our work.

The dimensions to the corner of the LOL where segment X1-1 and R2-1 meet have been revised.

See the attached SKGT-0001-R2.

T-0070 **BSE - Excavation Permit for Pre-trenching in the Public Right of Way** **Closed** **03/24/2011** **04/04/2011** **03/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 14 10 and attached sheet

BBII would like to confirm the following:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For pre-trenching work, Contractor is expected to acquire excavation permit from DPW. Permit fee is reimbursable by TJPA.

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- BBII is responsible for applying for Excavation Permits from the San Francisco Department of Public Works for all of the pre-trench excavations in the public right-of-way.
- Per Specification Section 01 14 10 Appendix (attached), TJPA will compensate BBII for the excavation permit costs.

In addition to the excavation permit, please note the the pre-trenching activity may need to obtain street space permit from DPW for work in Minna, Natoma, Fremont, Beale, and 1st (fee also reimbursed by TJPA), and Special Traffic Permit (as required) from DPT (or Sustainable Streets Division, SFMTA).

T-0071 **RFI T-0071 - 301 Mission Screen Wall - Waterproofing at South face** **Closed** **03/25/2011** **04/04/2011** **04/05/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached letter

Please see the attached letter dated March 16, 2011 by Erik Liu of Transworld.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please clarify this RFI.

It is not clear what information/clarification (if any) is being requested, nor is it clear if a specific recommendation is being proposed/submitted for acceptance.

T-0072 **BSE - Concrete Sidewalk and SD Removal in Zone 4** **Closed** **03/30/2011** **04/09/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photos showing concrete sidewalk and sewer manhole in Zone 4, adjacent to 301 Mission building

The sidewalk and sewer manhole (as seen in the photos) is not in the BSE contract work and will need to be removed prior to pre-trenching. BBI is scheduled to start their pre-trenching activities on 04/11/2011.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Drawings D-1014, D1060, D-1063, D-1072, D1076, D-1202, D-1206 , D-1215 define extent of demolition contract.

Refer to Contract and BSE Drawings D-0001 and D1001 Notes for BSE Demolition scope.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0073	**BSE - Request for Response Spectra**	**Closed**	**03/30/2011**	**04/09/2011**	**04/07/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13

During a meeting with the San Francisco DBI & DPW, it was expressed that BBII must use response spectra generated by ARUP in the design of the temporary bridges. It was also noted that if the bridges are going to be in place for over 5 years, the design must be for a permanent structure and the specified ground motion may not be suitable. Therefore, BBII requests response spectra for a ground motion with a 10% probability of exceedence in 50 years as specified, as well as for a ground motion with a 7.5% probability of exceedence in 75 years.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This request needs to be discussed in more detail. We will provide this in time for Tuesday's meeting.

Adamson Comment:

The meeting referenced will be held on April 12, 2011. The purpose of delivering the information in the meeting is to confirm that the Contractor and Arup have a common understanding of the requested information and the data being transmitted.

T-0073.1	**BSE - Request for Response Spectra**	**Closed**	**03/30/2011**	**04/09/2011**	**04/14/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Response to RFI#T-0073

During a meeting with the San Francisco DBI & DPW, it was expressed that BBII must use response spectra generated by ARUP in the design of the temporary bridges. It was also noted that if the bridges are going to be in place for over 5 years, the design must be for a permanent structure and the specified ground motion may not be suitable. Therefore, BBII requests response spectra for a ground motion with a 10% probability of exceedence in 50 years as specified, as well as for a ground motion with a 7.5% probability of exceedence in 75 years.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Attached are:

1. Arup Amec (2010) report Tables 3-3(bedrock), 3-7a (base of structure West end of box), 3-7b (base of structure East end of box), 3-9 (ratio vertical to horizontal spectral acceleration ratios) and Table 3-4 giving scale factors for near-fault effects. Note that these spectra exclude structural interaction effects and do not include the progressive softening effects that will occur progressively in the Old Bay Clay.

2. Output from LS Dyna dynamic analyses of the temporary (1 in 100 year return period) condition at 301 Mission, adjacent Fremont Street abutment, using the Kobe bedrock and far-field motions to generate the horizontal acceleration spectrum at the top of the shoring wall. This produces increased spectral accelerations at the fundamental period (understood to be 0.8s) of the Contractor's bridge structure.

Arup recommends that a meeting be held to review

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and discuss these after the Contractor's engineer has examined them.

T-0074 **301 Mission Wall - Nelson Stud and Stirrup Locations** **Closed** **04/01/2011** **04/11/2011** **04/01/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0027

Per field conversation, please confirm that it is acceptable to install/weld nelson studs at 9" on center at locations in front of the vault intrusions into the concrete stem wall, where the #8 size dowels are also spaced at 9" on center, per RFI T-0027. The Nelson Stud spacing will match dowel embeddment locations. This spacing also facilitates the installation of rebar stirrups and provides two tie points, one being the dowel, and the other the nelson stud.

This work is currently ongoing and immediate confirmation is requested. Please confirm this layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Industry standard practice is to use miscellaneous added tie rebar (e.g. #3 or #4 bar) to provide for requirements to tie reinforcement bars as required. This RFI is a request to change spacing of nelson stud bars from 12" o.c. to 9" o.c. (where #8 dowels are spaced at 9" o.c.) in lieu of use of added tie bars.

We note this request is for convenience of the Contractor and on this basis take no exception to reducing the spacing of the nelson stud bars from 12" o.c. to 9" o.c. (where #8 dowels are spaced at 9" o.c.). Accordingly, no change in contract and/or extension in schedule will be provided to accommodate this Contractor request. All impacts including cost and schedule associated with reducing spacing of nelson stud bars shall be borne solely by the Contractor.

David Fyfe, 04/01/2011

No CR will be issued for work associated with the change in nelson stud spacing from 12" o.c. to 9" o.c. (where #8 dowels are spaced at 9" o.c.).

Kevin Chiu, 04/01/2011

T-0075 **BSE - Specification Section 32 12 17 and 32 12 18** **Closed** **04/04/2011** **04/14/2011** **04/05/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

We noticed that the Specification 32 12 17 at the bid has been revised to 32 12 18 in the IFC Document.
1. Please confirm that the content of the specification "STREET EXCAVATION AND RESTORATION" was unchanged between pre-bid and post-bid.
2. Please confirm that the Trade Subcontractor shall continue to use the Specification Number 32 12 18 and TJPA shall revise the Table of Contents and other specification sections referring to "32 12 17."

1. Confirmed. Street Excavation and Restoration specification was issued as 32 12 17 in the IFB set, and issued as 32 12 18 to avoid duplication with the Pavement Restoration specification for the Utilities trade packages.

2. Confirmed. As stated above, 32 12 17 is for Pavement Restoration section for the Utilities trade packages, and is not applicable for TG03 Work.

T-0076 **BSE - Footing and Pile Removal at Bent 59 - 61** **Closed** **04/04/2011** **04/14/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-1072, D-1030, D-1046, and D-5103 and Spec Section 01 35 65

Please advise the following as discussed with BBII on 03-28-2011 have been completed per the Demolition Contract:
- Bent 59-61 - Removal of columns, footings and timber piles as required to complete 4'x4' x13' excavation below grade complete and backfilled. (Refer to drawings D-1072, D-1030, D-1046).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition of both Bent 59 and 61 was completed per Demolition Contract Drawing D-1046 Rev.0 Dated 01/04/10 and Drawing CL-17456 Rev.1 dated 8/10/09.

Bent footings were demolished to the minimum 3 feet below grade per drawing D-1046 and applicable notes. Locations of these Utility Pole Foundations were determined by SFMTA (MUNI) and BLHP (Street Lighting).

The three (3) locations total for the new Utility Pole Foundations had the bent footings removed and were excavated to a depth of 13' (+/-). Wood piles were not "pulled." Pile removal consisted of removing the top of pile as required to install the pole foundations to depth.

T-0077 **BSE - Monitoring Plans and Data for Zone 4 and Lot N** **Closed** **04/04/2011** **04/14/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 35 65

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Project "110 - Existing Terminal Building & Ramps Project" in Constructware contains the following

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As discussed at the site walk through meeting on 03-28-2011 with BBII, BBII requests a copy of the demolition contract monitoring plan and any data in relation to demolition contract mitigation monitoring of Lot N and Zone 4.

submittals with the monitoring data requested-

1. 011540-02.0 Pre-Construction Survey - 181 Fremont St
2. 011540-04.0 Pre-Construction Survey - 199 Fremont St

Note: 301 Mission did not provide the demo contactor access therefore data is not available for this property.

T-0078 **BSE - Timber Piles Not Yet Surveyed by EBI** **Closed** **04/04/2011** **04/14/2011** **04/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photos and sketch

While BBII was excavating the trial pile extraction area and exposing the timber piles on 03/31/11, piles that were not surveyed by EBI were discovered on the eastern side of the TPE area close to pile 215053. Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor exposed tops of wooden piles as part of demolition and was not required to survey wooden piles.

BBII should follow contract Spec 02-41-19 Pile Removal Para 1.4 and provide existing timber pile documentation.

Each pile over contract quantity will be reimbursed as force account (unless parties can agree on a unit rate) in accord with CCO no. T-001 Rev 2 dated 4/8/11.

T-0079 **BSE - Existing Street Light Footing Locations** **Closed** **04/04/2011** **04/14/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01

As discussed at the site walk through meeting 03-28-2011 with BBII, the pre-existing street light poles were relocated per demo contract. BBII was told the foundations and timber piles for the pre-existing street lights have not been removed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Spec 02-41-00 is the Spec for Demolition Contractor and Demolition Drawing D-1084 scopes the Lighting Removal and Replacement Plan.

All Pre-existing street lights scoped in the Demolition Contract Drawings were demolished and removed. There are no pre-existing lights, street light

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Please provide BBII with as-built drawings indicating the pre-existing street light locations. Pre-existing streetlight foundations will need to be removed before CDSM wall installation, if a conflict is identified.

foundations or OCS pole foundations remaining installed that were contracted for demolition by Demolition Contractor.

The (3) three Light Poles and Light Pole Foundations located at Fremont St. per Demolition Drawing D-1084 are on "Portable Foundations" (versus poured concrete foundations).

The (3) three Light Poles and Light Pole Foundations located on First St. per Demolition Drawing D-1084 are on poured underground foundations anchored to basement floor.

This is less scope for BSE Contractor who will not have to disconnect and demolish pole foundations that were located in the Frmont St. excavations. Locations of these Portable Light Poles at Fremont and underground foundation Light/OCS Poles on First St. were determined by SFMTA (MUNI) and BLHP (Street Lighting).

T-0080 **BSE - Additional Timber Piles Not Surveyed by EBI** **Closed** **04/04/2011** **04/14/2011** **04/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0078 and attached photos and sketch

While BBII was excavating the trial pile extraction area and exposing the timber piles on 04/01/2011, piles that were not surveyed by EBI were discovered on the southern side of the TPE area close to piles 215044, 215043 and in the centre of the TPE area at 215054, as shown in the attached drawing. The pile next to 215054 was extracted due to its proximity to 215054. A total of 7 additional piles have now been discovered to date. Please advise BBII on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII should follow contract Spec 02-41-19 Pile Removal Para 1.4 and provide existing timber pile documentation.

Each pile over contract quantity will be reimbursed as force account (unless parties can agree on a unit rate) in accord with CCO no. T-001 Rev 2 dated 4/8/11.

T-0081 **BSE - Revised Shoring Wall Alignment Dimension** **Closed** **04/05/2011** **04/15/2011** **04/11/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:
Reference attached sheet SKGT-0001-R1

The dimension from gridline J to the intersection of wall segments 1-1 and X1-1 was not updated for the revised shoring wall alignment - see attached drawing for reference. Please provide the correct dimension.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
ARUP Response:

The dimensions have been revised. See the attached SKGT-0001-R3.

T-0082 **BSE - Hazardous Material Removed From Site** **Closed** **04/05/2011** **04/15/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:
Reference Specification Section 00 03 35

Please confirm that all hazardous material has been removed from site per the extent of demolition contract drawings for Zone 4 and Lot N.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Above ground structures and foundations were demolished at Parcel N, including footings to minus 3 feet. Demolition contract Hazardous materials scope was completed including 133 Beale st. Bar and Grille.

Refer to Demolition Drawings D-1011, D-1012, D-1013, D-1029, D1030, D1044-1046 and D-1252 for extent of removal of structures and hazardous material.

T-0083 **BSE - Existing Utilities Decommissioning Lot N and Zone 4** **Closed** **04/05/2011** **04/15/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:
Reference Sheet D-2230 and Specification Section 02 41 01

Please provide as built drawings for all decommissioned utilities in Lot N and Zone 4 to BBII.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Parcel N: Exisiting Utilities were decommissioned (e.g. cut and cap) in accord with Contract Drawings which only is 133 Beale st. Bar and Grille per D-1252.

Parcel D Zone 4 : Exisiting Utilities were decommissioned (e.g. cut and cap) in accord with Contract Demolition Drawings D-1202, D-1203, D-1206, D-1207, D-1210, D-1215

However: Two (2) locations of Existing Combined Sewer Connections ("SEWER") shown on D-1202 and D-1206 were as left unplugged to assist BBII with

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Dewatering discharge pipes. Locations are identified as follows: "3/D-1210 SEWER" on sheets D-1202, D-1206 and "-/- SEWER" on sheets D-1202, D-1206 (NE Corner of Lot D; no detail number provided).

Demolition Contractor has not completed their scope of Contract and therefore has not submiited their final as-built drawings in Constructware. However, they are available in Demolition Contractor's trailer office for your viewing.

T-0083.1 **BSE - Existing Utilities Decommissioning Lot N and Zone 4** **Closed** **04/05/2011** **04/15/2011** **05/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Response to RFI#T-0083, Sheet D-2230 and Specification Section 02 41 01

The following response of RFI T-0083 is not acceptable and will become out of control of the RFI documentation process: "they are available in Demolition Contractor's trailer office for your viewing."

Please provide BBI with as built drawings for all utilities which has been decommissioned to date in Lot N and Zone 4 to BBII.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor has no Utility Demolition scope at Parcel N.

Demolition Contractor has completed Utility Demolition scope at Parcel D (Zone 4) per contract drawings except where agreed by BBIi.

These as-built Utility Demolition Drawings are currently under review by the Engineer of Record and will be issued to Webcor/Obayashi for their use after this review is complete.

T-0084 **BSE - Existing Storm Drains Decommissioning in Lot N** **Closed** **04/05/2011** **04/15/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2230 and Specification Section 02 41 01

There are 2 existing storm drain basins in Lot N not yet decommissioned. Please provide BBII the status of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Parcel N: Existing Utilities were decommissioned (e.g. cut and cap) in accord with Contract Drawings which only is 133 Beale St. Bar and Grille per D-1252.

There are two Storm Drain outlets on parcel N and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

decommissioning or modification of these lines.

their status' are unknown because they are outside the scope of the demolition contractor. Unforeseen Catch Basin at Beale Street Bar & Grill is identified under Demolition Contractor RFI -00058. These have been observed draining the water from parcel N during the rainy season.

T-0084.1 **BSE - Existing Storm Drains Decommissioning in Lot N** **Closed** **04/21/2011** **05/01/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0084, Drawing Sheet D-2230, and Specification Section 02 41 01

RFI response T-0084 has not provided clear direction for decommissioning these SD lines. The drawings indicate that the SD drain flows towards Beale Street and will conflict with the CDSM wall. Please advise on status for decommissioning the above SD lines.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As stated in response to RFI T-0084 there are two Storm Drain outlets on Parcel N and their status' are unknown because they are outside the scope of the demolition contractor. Unforeseen Catch Basin at Beale Street Bar & Grill is identified under Demolition Contractor RFI -00058.

This is outside the scope of the Demolition and the BSE contract. Webcor-Obayashi RUP relocation of Utilities Project Manager will be contacted for reroute or decommissioning these Parcel N parking lot storm drain lines.

T-0085 **BSE - Existing Site Conditions Lot N** **Closed** **04/05/2011** **04/15/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 15 40

Prior to demolition work Lot N surface consisted of asphalt paving, however a majority of the Lot is not currently paved. BBII assumes that the lot will be restored to its original condition. Please confirm

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor was not required to restore areas specified for demolition with asphalt paving (areas such as Parcel N). This was not specified for in the demolition Contract drawings or Spec. The demolition contractor is required to backfill after removal of below grade structures with recycled crushed/processed demolition concrete. For Parcel N - Refer to drawing D-1029 Note 9.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0086	BSE - Clean Debris From Adjacent Buildings To Lot N and Zone 4	Closed	04/05/2011	04/15/2011	04/11/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 15 40

Please confirm that demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent building owners, and BBII will only be responsible for cleaning dust and debris generated by BBII during its own operations, after the turnover of these are completed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent building owners to date. This was confirmed through conversation with both EBi and Singer Associates.

T-0087	BSE - Zone 4 Gate	Closed	04/05/2011	04/15/2011	04/11/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Demo Contract Drawings

Per note 5 on drawing D-1006 of the demolition contract, each discreet fenced area shall have a minimum of two 16ft gates at the conclusion of demolition work. Currently, zone 4 only has one gate in place. BBII requests an additional gate be provided on the Fremont St. side of zone 4. BBII is available to meet and coordinate an ideal location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor second 16 foot gate eliminated due to Fremont Shoring wall. Demolition contractor used alternate means and methods for truck traffic to-from parcel D Zone 4.

That said, Demolition contractor has offered gate credit which could be used to install a 16 wide gate either at SW corner near 181 Fremont St. or on the Beale St. fence line. However- Demolition contractor would not be responsible for curb cut, removal of parking meters or other ancillary scope if Beale St. gate is chosen - that would be the responsibility of BSE Contractor. BBII can use/modify and relocate barrier fence and gates as needed per your contract. A field coordination meeting after the Monday 4/11/11 Street Coordination meeting is recommended.

T-0088	BSE - Temporary Shoring Wall and Buttress Conflict	Closed	04/06/2011	04/16/2011	04/08/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201 and Specification Section 31 63 29

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This issue was discussed at yesterday's (4/6/11) BSE

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The temporary shoring wall installed under the demolition contract was moved East away from Fremont St. to avoid an unknown existing concrete wall. The as-built alignment of the wall now falls along the edge of the third column (C) of buttress shafts. In an effort to avoid conflicts with column C shafts generated by the revised temporary shoring wall alignment, BBII suggests that the buttress formation be moved 12" East.

meeting. The information which will be included in the Contractor's drilled shaft work plan is needed by Arup to evaluate the feasibility of the proposed shift and to consider other options.

T-0088.1 **BSE - Temporary Shoring Wall and Buttress Conflict** **Closed** **04/06/2011** **04/16/2011** **04/20/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

The response for RFI #T-0088 was not an answer to the question
Please provide an appropriate direction to start preparing the submittal and the work as soon as possible.

Reference Sheet GT-2201 and Specification Section 31 63 29

The temporary shoring wall installed under the demolition contract was moved East away from Fremont St. to avoid an unknown existing concrete wall. The as-built alignment of the wall now falls along the edge of the third column (C) of buttress shafts. In an effort to avoid conflicts with column C shafts generated by the revised temporary shoring wall alignment, BBII suggests that the buttress formation be moved 12" East.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor may relocate the entire buttress structure up to 12 inches east of the design location in order to clear any conflict with the Fremont Street shoring wall. Contractor is requested to identify the new layout and any impacts prior to start of buttress construction.

T-0088.2 **BSE - Temporary shoring wall and buttress conflict** **Closed** **04/06/2011** **04/27/2011** **04/25/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

The response for RFI #T-0088.1 was not an acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

answer to the question.

Please provide exact revised layout as required.

The Buttresses have exact Coordinate Locations to define the layout, as shown on GT-2201.

The existing coordinates must be changed to reflect the new layout the TJPA desires.

History

Information from RFI#T-0088.1

The response for RFI #T-0088 was not an answer to the question
Please provide an appropriate direction to start preparing the submittal and the work as soon as possible.
Answered By: George Metzger
Answered On: 20-Apr-2011
Answer:
The contractor may relocate the entire buttress structure up to 12 inches east of the design location in order to clear any conflict with the Fremont Street shoring wall.
Contractor is requested to identify the new layout and any impacts prior to start of buttress construction.

Information from RFI#T-0088

Reference Sheet GT-2201 and Specification Section 31 63 29

The temporary shoring wall installed under the demolition contract was moved East away from Fremont St. to avoid an unknown existing concrete wall. The as-built alignment of the wall now falls along the edge of the third column (C) of buttress shafts. In an effort to avoid conflicts with column C shafts generated by the revised temporary shoring wall alignment, BBII suggests that the buttress formation be moved 12'' East.
Suggestion
Cost Impact Potentially Cost Amount
Schedule Impact Potentially Days

The Contractor's cover sheet describes this as RFI 0088.2, but the correct number is 0088.3.

See attached SKGT-0002.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Answered By George Metzger
Date Answered 2011-04-20
Answer The contractor may relocate the entire buttress structure up to 12 inches east of the design location in order to clear any conflict with the Fremont Street shoring wall. Contractor is requested to identify the new layout and any impacts prior to start of buttress construction.

T-0088.3 **BSE - Temporary shoring wall and buttress conflict** **Closed** **04/06/2011** **04/27/2011** **04/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

The response for RFI #T-0088.1 was not an acceptable answer to the question.

Please provide exact revised layout as required.

The Buttresses have exact Coordinate Locations to define the layout, as shown on GT-2201.

The existing coordinates must be changed to reflect the new layout the TJPA desires.

History

Information from RFI#T-0088.1

The response for RFI #T-0088 was not an answer to the question
Please provide an appropriate direction to start preparing the submittal and the work as soon as possible.
Answered By: George Metzger
Answered On: 20-Apr-2011
Answer:
The contractor may relocate the entire buttress structure up to 12 inches east of the design location in order to clear any conflict with the Fremont Street shoring wall.
Contractor is requested to identify the new layout and any impacts prior to start of buttress construction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The Contractor's cover sheet describes this as RFI 0088.2, but the correct number is 0088.3.

See attached SKGT-0002.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

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Information from RFI#T-0088

Reference Sheet GT-2201 and Specification Section 31 63 29

The temporary shoring wall installed under the demolition contract was moved East away from Fremont St. to avoid an unknown existing concrete wall. The as-built alignment of the wall now falls along the edge of the third column (C) of buttress shafts. In an effort to avoid conflicts with column C shafts generated by the revised temporary shoring wall alignment, BBII suggests that the buttress formation be moved 12" East.
Suggestion
Cost Impact Potentially Cost Amount
Schedule Impact Potentially Days
Answered By George Metzger
Date Answered 2011-04-20
Answer The contractor may relocate the entire buttress structure up to 12 inches east of the design location in order to clear any conflict with the Fremont Street shoring wall. Contractor is requested to identify the new layout and any impacts prior to start of buttress construction.

T-0089 **BSE - Existing Asphalt and Concrete Removed Zone 4** **Closed** **04/06/2011** **04/16/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-1001 and Demo Contract Dwgs D-1060, D-1072 and attached photos

Please see attached photos showing asphalt pavement at the entrance to zone 4 on the northeast corner. The referenced asphalt driveway is not in the BSE contract work and will need to be removed. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The asphalt pavement at the entrance to zone 4 on the northeast corner is not in demolition contract scope. Contract scope included concrete columns, footings and mat slab to be removed as defined in contract drawings. Refer to demolition drawing D-1058 for best depiction of extent of demolition.

Refer also to D-1014, D-1030, D-1058, D-1060, D-1063 and D-1072

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0090	BSE - Timber Piles Not Surveyed By EBI 04/04/11	Closed	04/06/2011	04/16/2011	04/13/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference attached photos and sketch

While BBII were excavating the trial pile extraction area and exposing the timber piles on 04/04/2011, piles that were not surveyed by EBI were discovered on the eastern side of the TPE area close to pile 215053 and in the western side of the TPE area at 215055 as shown in the attached drawing. The pile next to 215055 was extracted due to its proximity to 215055. A total of 10 additional piles have now been discovered to date. Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII should follow contract Spec 02-41-19 Pile Removal Para 1.4 and provide existing timber pile documentation.

Each pile over contract quantity will be reimbursed as force account (unless parties can agree on a unit rate) in accord with CCO no. T-001 Rev 2 dated 4/8/11.

T-0091	Reciept of Construction Documents	Closed	04/06/2011	04/16/2011	04/08/2011	Potentially	☐

From: Webcor Construction LP — David Hungerford
To: Turner Construction Compan — Daphne Faulkner
Answered By: Transbay PMPC — Alfred Lau
Co-Author:

REQUEST:

Per the 110325_MSTR_CD_Work_Plan schedule, transmitted to Webcor/Obayashi on March 28, 2011 and discussed in the OAC Meeting on April 6, 2011; confirm the following dates should be implemented in the next monthly schedule update:

1. Webcor/Obayashi will receive the 90% CD documents on August 24, 2011

2. Webcor/Obayashi will receive the 100% CD documents on December 2, 2011

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm. These are the current scheduled dates provided by the Design Team.

T-0092	BSE - Timber Piles Not Surveyed By EBI 4/5/11	Closed	04/06/2011	04/16/2011	04/13/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference attached photos and sketch

While BBII was excavating the trial pile extraction area and exposing the timber piles on 4/5/11, two further piles

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII should follow contract Spec 02-41-19 Pile Removal Para 1.4 and provide existing timber pile documentation.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

that were not surveyed by EBI were discovered on the southern side of the TPE area close to piles 215043 and 215044. Following this, four additional piles to the north west of the area adjacent to 215067 and 215068 as shown in the attached drawing were discovered. A total of 16 additional piles have now been discovered to date. Please advise on how to proceed.

Each pile over contract quantity will be reimbursed as force account (unless parties can agree on a unit rate) in accord with CCO no. T-001 Rev 2 dated 4/8/11.

T-0093 **BSE - CDSM Wall Segment 35-1 Spacing Confirmation** **Closed** **04/07/2011** **04/17/2011** **04/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-2103, GT-5101 and Specification Section 31 56 13

In drawing GT-5101, the spacing of all shoring wall beams is specified as 4'-0". This is reflected in the drawings for all sections of the CDSM shoring wall except the east wall (Wall Segment 35-1). The beam spacing of this Segment (measured in AutoCad) is 3.94728'. This creates a dimension bust of approximately 2.4' over the length of the wall and significant problems based on the auger spacing. Please verify the spacing of beams in Wall Segment 35-1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The spacing of the soldier piles shall be the stated dimension in the documents (4'-0", unless otherwise noted). The Contractor is reminded to not scale the drawings. Additionaly, the AutoCad dwg files are not part of the contract documents and the Contractor is not to obtain dimensions off the electronic files.

T-0094 **BSE - Timber Piles Not Surveyed By EBI 04-06-11** **Closed** **04/08/2011** **04/18/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photo and sketch

While BBII were excavating the trial pile extraction area and exposing the timber piles on 4/6/11, an additional pile was found close to 215068 as shown on the attached drawing and photos. A total of 17 additional piles have now been discovered to date. Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII should follow contract Spec 02-41-19 Pile Removal Para 1.4 and provide existing timber pile documentation.

Each pile over contract quantity will be reimbursed as force account (unless parties can agree on a unit rate) in accord with CCO no. T-001 Rev 2 dated 4/8/11.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0095	**BSE - Zone 1 CDSM Test Section Relocation**	**Closed**	**04/11/2011**	**04/21/2011**	**04/14/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2101, Specification Section 31 56 13 and attached drawing

Per discussion with ARUP at the Wednesday April 06, 2011 Design Coordination Meeting, the Engineer was willing to consider relocating the Zone 1 CDSM test panel as shown on Dwg. GT-2101 from Zone 1 and into Zone 2. BBII and DND Construction are therefore proposing to relocate the Zone 1 CDSM test panel to the location shown on the attached drawing, near gridline 10. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
This is acceptable.

T-0096	**BSE - Old Existing Footing Along 301 Mission in Zone 4**	**Closed**	**04/11/2011**	**04/21/2011**	**04/12/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01

During Pre-Trench BBII found an existing footing along the Low Rise 301 Mission wall. The footing consists of bricks and concrete. It also has a perpendicular footing that come out from footing that is parallel to the 301 Mission building wall. BBII has exposed a 20 to 30ft section of this footing (approximately on Grid Line "A" between 30 and 32).

Please advise BBII as to how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Contract Spec. 31-56-13 Shoring wall by CDSM Method Para 3.2 Pretrenching and removal of Obstructions, Contractor is to " remove any obstructions that might be encountered along the alignment of the walls. The depth and width of trench shall be that required to remove the obsructions from the path of the shoring wall."

The Archaeologist was contacted and viewed the exposed section of wall and brick debris on 4/11/11. Further archeological investigation will folllow as pre-trenching continues and areas are exposed - Ref: Spec. 00-08-12 for Archaeological conditions in Zone 4.

Demolition of underground obstructions shall be per Spec 02-41-01 and Demolition Debris shall be handled in accord with Spec. 01-74-00.

T-0096.1	**BSE - Old Existing Footing Along 301 Mission in Zone 4**	**Closed**	**04/20/2011**	**04/30/2011**	**05/02/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference response to RFI T-0096 and Specification Section 02 41 01

BBII interprets the Response to RFI T-0096 (BBI 0067) as TJPA's approval for the removal of this unforeseen structure. Please confirm.

BBII proposes to follow the method outlined below for the removal of this unforeseen structure. Please confirm in writing that the removal of this unforeseen structure is approved and that provided that it is performed with the method outlined below, no damage to adjacent buildings will occur.

Pre Trench Obstruction Removal Method

Location:
Parallel along the 301 Mission St. Low Rise (Grid line A, approximately between lines 29 & 34).

Obstructions:
The footing consists of bricks and concrete. It also has a perpendicular footing that comes out from the footing that is parallel to the 301 Mission building wall.

Method:
BBII will first expose the obstructions and use an excavator mounted and hand held jackhammer to demolish the large masses into smaller more manageable sizes. An excavator with a bucket will then clear the debris, until the debris is removed from the area of the CDSM Wall location. BBII will chase the obstruction as deep as it goes in order to remove all debris necessary for a clean location to construct the CDSM Wall. Due to the unknown depth of the obstruction, at BBII discretion Sheet Piles or trench boxes may be used to support trench walls. All OSHA approved, safe practices will be used by BBII employees during the Demolition.

Additional Details:
As noted in the RFI response, the Archeologist has already examined the site. BBII (W/O) will notify the TJPA if additional structures or items are encountered.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construction means and methods are the contractor's responsibility exclusively. RFI response are not authorization of any change in contract sum or contract time.

We take no exception to above method for the removal of structure. This work will be tracked in accord with CR T-0010.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0097	**BSE - Protective Material Along 301 Mission St Wall**	**Closed**	**04/20/2011**	**04/30/2011**	**05/06/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photos

BBII has encountered a drainage material along the 301 Mission wall while pretrenching. During pretrenching, this drainage material has been removed because it was not affixed to the structure. The wall does not have any exterior waterproofing system.

Upon installation of the CDSM shoring system, the cementious material will be against this wall. The existing wall is a 5' deep cantilevered beam on the backside of the existing garage shaft for 301 Mission. Does TJPA plan to install any waterproofing along this wall that can tolerate the installation of a CDSM shoring system?

Please advise BBII of the TJPA's plan for waterproofing of this building.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Drainage material encountered is to be removed from the 301 Mission Wall as it was a temporary measure installed at the time of 301 Mission building construction. No waterproofing is required at this location. See attached email response from R. Rothenburger at PMPC.

04/19/2011 - George Metzger

TJPA to provide direction to GC.

T-0098	**301 Mission Wall - Tube Steel Alignment**	**Closed**	**04/12/2011**	**04/22/2011**	**04/21/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference: B/S-5000 and D/A-6000

Detail B on sheet S-5000 shows the 10" tube steel centered on the 14" concrete wall below, however this is in conflict with D/A-6000 which shows the steel tube off set from the center of the wall. Please confirm per the 301 Mission subcontractor meeting conversation yesterday, that the tube steel is to be centered on the center of the wall as dimensioned in B/S-5000.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Confirmed. The 10"x10"x5/8" HSS section shall be erected on the center line of the concrete wall as dimensioned in Section B on S-5000."

T-0099	**BSE - Depth of Fremont Street Shoring Wall in Zone 4**	**Closed**	**04/12/2011**	**04/22/2011**	**04/14/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2203 and attached as-built, photos,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The temporary Fremont St. shoring wall was

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

and document
CPM Activity Impacted - SX-BB42640

While excavating adjacent to the existing Fremont street shoring wall as shown on contract drawing D-2203, BBII has found the existing shoring wall's height to be approximately 2' shorter than the 14 feet depth indicated in the as-builts (attached). This wall does not provide adequate shoring height for BBII to excavate and expose the timber piles prior to extraction. (See attached photo for illustration)

The contract documents D-2203 and pre-bid Q&A response #182 (also attached) indicate this wall would accommodate the buttress area pile removal, however actual existing field conditions do not provide adequate shored depth

Please provide direction.

constructed to support Fremont St. and facilitate removal of Terminal basement slab, walls, and pile caps/footings. The temporary Fremont St. shoring wall was not intended nor constructed to facilitate pile removal activities.
BSE sheet D-2203 only specifies removal of the temporary Fremont St. shoring wall. Sheet D-2203 does not specify nor imply that the temporary Fremont St. shoring wall shall be used or is sufficient to be used for pile removal activities.
Response to QBD 182 was provided to bidders to enable bidders to form a basis for pricing removal of the temporary Fremont St. shoring wall.
If the Contractor is undertaking excavation activities which jeopardize the stability of the Fremont St. roadway/foundation, then Contractor shall take any and all necessary actions to protect Fremont St. roadway/foundation.

T-0100 **BSE - Slurry Wall Along 301 Mission St Garage** **Closed** **04/13/2011** **04/23/2011** **04/18/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0096, Specification Section 02 41 00, and attached photos

Please reference from RFI#T-0096 (BBI RFI #67): "During Pre Trench BBII found an existing footing along the Low Rise 301 Mission wall. The footing consists of bricks and concrete. It also has a perpendicular footing that come out from footing that is parallel to the 301 Mission building wall. We have exposed a 20 to 30ft section of this footing (Approximately on Grid Line "A" between 30 and 32)."

After the Concrete and Brick Footing was discovered, a very large mass of slurry was discovered in the same area, and continues where the RFI#T-0096 (BBI RFI# 67) Concrete Footing" stopped. ***Please See Attached Photos***

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Contract Spec. 31-56-13 Shoring wall by CDSM Method Para 3.2 Pretrenching and removal of Obstructions, Contractor is to " remove any obstructions that might be encountered along the alignment of the walls. The depth and width of trench shall be that required to remove the obsructions from the path of the shoring wall."

The Archaeologist was contacted and viewed the exposed section of wall and brick debris on 4/11/11. Further archeological investigation will folllow as pre-trenching continues and areas are exposed - Ref: Spec. 00-08-12 for Archaeological conditions in Zone 4.

Demolition of underground obstructions shall be per

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This slurry wall seems to continue into the future location of the Pre-Trench, and was not in the contract drawings.

Please Advise BBII as to how to proceed.

Spec 02-41-01 and Demolition Debris shall be handled in accord with Spec. 01-74-00.

T-0100.1 **BSE - Slurry Wall Along 301 Mission St Garage** **Closed** **04/20/2011** **04/30/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference response to RFI T-0100 and Specification Section 02 41 01

BBII interprets the Response to RFI#T-0100 (BBI 0070) as TJPA's approval for the removal of this unforeseen structure. Please confirm.

BBII proposes to follow the method outlined below for the removal of this unforeseen structure. Please confirm in writing that the removal of this unforeseen structure is approved and that provided that it is performed with the method outlined below, no damage to adjacent buildings will occur.

Pre Trench Obstruction Removal Method

Location:
Parallel along the 301 Mission St. Low Rise (Grid line A, approximately between lines 30 & 34).

Obstructions:
A very large mass of slurry.

Method:
BBII will first expose the obstructions and use an excavator mounted and hand held jackhammer to demolish the large masses into smaller more manageable sizes. An excavator with a bucket will then clear the debris, until the debris is removed from the area of the CDSM Wall location. BBII will chase the obstruction as deep as it goes in order to remove all debris necessary for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construction means and methods are the contractor's responsibility exclusively. RFI response are not authorization of any change in contract sum or contract time.

We take no exception to above method for the removal of structure. This work will be tracked in accord with CR T-0010.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

a clean location to construct the CDSM Wall. Due to the unknown depth of the obstruction, at BBII discretion Sheet Piles or trench boxes may be used to support trench walls. All OSHA approved, safe practices will be used by BBII employees during the Demolition.

Additional Details:
As noted in the RFI response, the Archeologist has already examined the site. BBII (W/O) will notify the TJPA if additional structures or items are encountered.

T-0101 **BSE - Pile Extraction Procedure Modification** **Closed** **04/14/2011** **04/24/2011** **04/15/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 19 and attached response for TG0300-310 Production Extraction Plan

BBII proposes to eliminate the "stroking" of the steel casing right before the CLSM is placed.
Upon removal of the steel casing, BBII proposes to "stroke" the steel casing after the CLSM is placed.
BBII believes the same effect of filling the void will be achieved, and this procedure will help to expedite the Project schedule.
Please kindly review our proposal. Your prompt response is appreciated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
This is not acceptable. The proposed procedure does not allow the volume of placed CLSM to be measured after the stroking of the casing.

T-0102 **BSE - Confirm Project Coordinates** **Closed** **04/15/2011** **04/25/2011** **04/19/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Drawings U-0100 and GT-0100

BBII's surveyor, KCA Engineers, has noticed some slight variations in bearings between the Utility drawings and the BSE drawings. Please see the following of KCA's

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response: The Building Grid and bearing has been established to best-fit the numerous constraints on the project. It is coincidental that the street control lines (note, these are not necessarily in the center of the Right-of-Way and should not be construed as

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

observations and confirm coordinates provided on drawing GT-0100.

Drawings U-0100 has coordinates along the center lines of various streets. The result of those coordinates put a bearing on the center line of Mission Street and Minna Street at North 46° 18 ' 19.6" East and the center line of First Street at North 43° 41 ' 39.0" West. This results in those streets not being at right angles to each other.

Drawings GT-0100 has coordinates on Column Line E. The result of those coordinates puts a bearing of North 46° 18' 09.7" East on the terminal Tills is 00° 00' 10" off from being parallel with Mission and Minna Streets.
Is this correct or should Column Line E be parallel with Mission and Minna Streets?

The numerical column lines are shown at right angles to Column Line E, which gives them a bearing of North 43° 41 ' 50.3" West. It was observed that Column Line 18 appeared to be in almost the same location as the center line of First Street, but First Street has a bearing of North 43° 41 ' 39.0" West which is 00° 00' 11" different than Column Line 18. Is it just a coincidence that the center line and column line are almost exactly in the same location or should something be adjusted to make the two lines identical?

Please advise if the bearings of the terminal should remain or be changed.

Center Lines) are very close, but at slightly different bearings. The building elements are constructed based on the building grid, whereas the utilities and subsequent street level improvements will be constructed based on the street control lines. The Numerical Bearings of the North South Grid lines appear to be correct. A follow-up survey control meeting should take place to ensure the shoring wall layout is performed as intended.

T-0103 **BSE - Existing Concrete Footing Gridline J between Gridline 26.5-30** **Closed** **04/15/2011** **04/25/2011** **04/25/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Drawings D-5103, D-2203 and GT-5104

Please see attached photos showing an unknown concrete structure discovered on the south side of zone 4. This structure is located between gridline 26.5-30 along gridline J. BBII is not aware of the purpose for this

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Contract Spec. 31-56-13 Shoring wall by CDSM Method Para 3.2 Pretrenching and removal of Obstructions, Contractor is to " remove any obstructions that might be encountered along the alignment of the walls. The depth and width of trench shall be that required to remove the obstructions from

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

structure, or if it has any affect on the stability of the adjacent structures (177/181 Fremont street).

The unknown structure was not present in the BSE contract drawings and is in direct conflict with the CDSM wall alignment, Please advise BBII how to proceed.

the path of the shoring wall."

The Archaeologist was contacted and viewed the exposed section of wall and brick debris on 4/11/11. Further archeological investigation will follow as pretrenching continues and areas are exposed - Ref: Spec. 00-08-12 for Archaeological conditions in Zone 4.

Demolition of underground obstructions shall be per Spec 02-41-01 and Demolition Debris shall be handled in accord with Spec. 01-74-00.

T-0103.1 **BSE - Existing Concrete Footing Gridline J Between Gridline 26.5-30** **Closed** **04/27/2011** **05/07/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0103 and Specification Section 02 41 01

BBII interprets the Response to RFI T-0103 (BBI 0074) as TJPA's approval for the removal of this unforeseen structure. Please confirm.

BBII proposes to follow the method outlined below for the removal of this unforeseen structure. Please confirm in writing that the removal of this unforeseen structure is approved and that provided that it is performed with the method outlined below, no damage to adjacent buildings will occur.

Pre Trench Obstruction Removal Method

Location:
Parallel along the 177/181 Fremont Street (Grid line J, approximately between lines 26.5-30).

Obstructions:
A large concrete structure.

Method:
BBII will first expose the obstructions and use an

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construction means and methods are the contractor's responsibility exclusively. RFI response are not authorization of any change in contract sum or contract time.

We take no exception to above method for the removal of structure. This work will be tracked in accord with CR T-0010.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

excavator mounted and hand held jackhammer to demolish the large masses into smaller more manageable sizes. An excavator with a bucket will then clear the debris, until the debris is removed from the area of the CDSM Wall location. BBII will chase the obstruction as deep as it goes in order to remove all debris necessary for a clean location to construct the CDSM Wall. Due to the unknown depth of the obstruction, at BBII discretion Sheet Piles or trench boxes may be used to support trench walls. All OSHA approved, safe practices will be used by BBII employees during the Demolition.

Additional Details:
As noted in the RFI response, the Archeologist has already examined the site. BBII (W/O) will notify the TJPA if additional structures or items are encountered.

T-0104 **BSE - Request for Report (PSI for Caltrans)** **Closed** **04/18/2011** **04/28/2011** **04/18/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification 01 13 50 and 00 03 35

The Site Mitigation Plan in Spec section 01 13 50 of Volume 1, References the report "PSI for Caltrans, 1999." After looking through the contract documents for the Analytical back-up, BBII, Treadwell & Rollo, and Republic Services, have not been able to find it. It is necessary to have this information to properly dispose of the Hazardous Materials.
To Complete the Profile of the work site, the Disposal facility, Republic Services, BBII need the Lab Data/Analytical Data from the report.
At this time, the lack of information is halting the process of Material Off-Haul.
Please Advise, or supply the Needed Report Information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Caltrans' Site Investigation Report for SFOBB West Approach, prepared by PSI in 1999 can be assessed from Constructware or from ftp site as below:

ftp://ftp.tjpa.org/Document%20Control/1104168/

Log In Instructions

1. Enter case-sensitive Username (public) and Password (PublicFTP1)

2. Select View\Open FTP Site in Windows Explorer

3. Drag file(s) to your desktop

Please contact PMPC Document Control should there is problem of accessing the information.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0105	BSE - Train Box Beam Sizes	Closed	04/20/2011	05/02/2011	04/22/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached sketches and Sheet S1-3201

Drawing S1-3201 provides information on beam sizing in the permanent concrete structure. BBII was recently provided additional structure sections in response to T-0035.1, and a number of the beams appear to have changed in size. Beams at gridlines 18, 26, 34, & 35 should be 5' wide according to schedule A on drawing S1-3201. However, from the section provided at gridline A, these all appear to be sized at 7' wide. The sizes of these beams are critical in determining the final geometry and location of our temporary bridges. BBII acknowledges that the structural drawings are not to be scaled, so please advise if these beams are to be 60" wide as indicated in schedule A, or if they have increased in size to 84" wide.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti Reply:

The concrete beams at gridlines 18, 26, 34, & 35 at Ground Level have increased to 84" wide. The design is "in-progress".

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0106	301 Mission Wall - Connection from Metal Stud to Tube Steel	Closed	04/20/2011	04/30/2011	04/27/2011	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: E & C/S-5000

Please see E & C/S-5000. Transworld has attempted in their shop to set #10 SMS through the structural tube steel, as per plan. The attempt was unsuccessful, therefore Transworld tried the use of a Hilti X-U fastener into the structural steel. Attached are Hilti spec sheets for the X-U Universal Knurled Shank Fastener as well as a photo showing the X-U fastener through the structural steel. Welding is another option for connection to the tube steel. Please advise how Transworld is to fasten the metal stud to the structural tube steel.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed Hilti X-U fasteners are for interior use only and are not acceptable for use on the 301 Mission exterior screen wall. Welding will damage the structural steel paint and light gauge steel galvanized coating and is not an acceptable means of connection.

To fasten metal stud to structural tube steel contractor may: 1) Use shot pins rated for exterior use (i.e. Hilti X-CR fastener - ESR 1663); or 2) Pre-drill holes and tap stainless steel machine screws.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0107	BSE - Visual Test in Lieu of Formally Testing for Verticality in CSL Tubes	Closed	04/20/2011	04/30/2011	04/22/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference RFI#T-0057, Sheet GT-5202, Specification Section 31 63 29, and attached documents
CPM Activity Impacted - Buttress Wall

Below are three cases (A, B, and C) in which formally testing for verticality on CSL tubes, BBII argues would prove to be highly unusual and counter-productive:

A. Specification Section 31.63.29.I.3 states "The contractor shall perform a test to determine verticality of the steel tubes, or drilled holes, that are going to be used for the sonic tests." Balfour Beatty has been advised by a number of testing firms that verticality tests cannot be performed on steel access tubes as well as piles reinforced with steel. Magnetic interference from steel reinforcement and steel tubes will cause the instrument to not function properly. BBII has also been advised by Terracon (please see attached email from Dextra), a reputable CSL testing firm that there are currently no known cases in the US where verticality of CSL tubes in steel reinforced piles have been formally tested.

B. Attached is a case study that details the investigation of debonding that occurs when using PVC as CSL access tubes. The results of this study clearly show the use of steel tubes (BBII is proposing to use Sonitec tubes) should be preferred over PVC.

C. After doing some research, the closest we came to find any mention of verticality in CSL tubes was this excerpt from EPA's website which states, "If the CSL access tubes are not installed in a near-vertical position and/or the distance between them varies significantly along the length of the shaft, errors in velocity calculations may occur." Judging by this approach to verticality in CSL tubes in most specs, BBII concludes that parallelism and symmetry between tubes are more important factors in ensuring accurate CSL test readings.

In summary, BBII in lieu of formally testing the CSL tubes for verticality will perform a visual test making sure that the tubes are symmetrical (equally spaced) in a circle and parallel. This is the most important inspection to ensure accurate pulse readings.

ARUP Response:

This is acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm that this is acceptable.

T-0108 **BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demoli** **Closed** **04/20/2011** **04/30/2011** **04/29/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 15 40

Please confirm that the demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent building owners, and BBII will only be responsible for cleaning dust and debris generated by BBII during its own operations, after the turnover of these are completed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent building owners to date. This was confirmed through conversation with both EBi and Singer Associates.

T-0108.1 **BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demoli** **Closed** **05/04/2011** **05/14/2011** **05/18/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference response to RFI#T-0108 and Specification Section 01 15 40

W/O requests information on the measures used to clean the adjacent structures

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RFI#T-0108 - BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demolition Work

Question -
Reference Specification Section 01 15 40
Please confirm that the demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent building owners, and BBII will only be responsible for cleaning

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor ceased dust generating activities and turned over Zone 3 for BBIi use on 4-13-11.

BBIi did occupy the site and did commence work activities, and is responsible for dust control in accord with Mitigation and Monitoring Specifications from 4-13-11 until completion of BBii work activities.

BBII is only responsible for cleaning dust and debris generated from Zone 3 during BBII operations from 4-13-11 going forward.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

dust and debris generated by BBII during its own operations, after the turnover of these are completed.

Response -
Confirmed. Demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition
contract to the satisfaction of the adjacent building owners to date. This was confirmed through conversation with both
EBi and Singer Associates.

T-0108.2 **BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demoli** **Closed** **05/04/2011** **05/14/2011** **05/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference response to RFI#T-0108, RFI#T-0108.1 and Specification Section 01 15 40

The response to RFI#T-0108.1 did not provide the requested information.

W/O requests information on the measures used to clean the adjacent structures

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RFI#T-0108.1 - BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demolition Work

W/O requests information on the measures used to clean the adjacent structures

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RFI#T-0108 - BSE - Building Adjacent Zone 3 Clean From Dust and Debris Generated By Demolition Work

Question -
Reference Specification Section 01 15 40
Please confirm that the demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition contract to the satisfaction of the adjacent

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There are no prescribed measures. The cleanliness of the adjacent buildings is subjective. Cleanliness is discussed with building owners requesting cleaning of their property upon completion of demolition work and initiated by the adjacent property owner/manager. Discussion with adjacent property owners is coordinated through TJPA Representative and Singer Associates.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

building owners, and BBII will only be responsible for cleaning
dust and debris generated by BBII during its own operations, after the turnover of these are completed.

Response -
Confirmed. Demolition contractor has satisfied the requirement to clean all dust and debris generated by demolition
contract to the satisfaction of the adjacent building owners to date. This was confirmed through conversation with both
EBi and Singer Associates.

T-0109 **BSE - Existing Drains & SD Basin Clear Of Debris Generated By Demo Contract W** **Closed** **04/21/2011** **05/01/2011** **05/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 15 40

Please confirm per the site walkthrough on 04-18-2011 that all active SD and sewer have been cleared of all debris generated by the demolition contract work.
BBII is requesting as-builts to confirm the above.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Contractor has continuously covered the Catch Basins and inlets to storm sewers and occasionally has cleared debris generated by others outside of the demolition contract work. Demolition contractor will provide per Demolition Spec. 02-41-13 at conclusion of their work which is scheduled for June 2011.

T-0110 **BSE - Existing Utility Decommissioning Zone 4** **Closed** **04/22/2011** **05/02/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0083, Drawing Sheet D-2230, and Specification Section 02 41 01

RFI response to RFI#T-0083 issued on 4-15-2011 has not provided direction for decommissioning or abandoning these utilities per BBII drawing # D-2230 Note 2

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Parcel D Zone 4 : Demolition of the Zone 4 sewer/storm drain piping after dewatering work has been completed is BBIi contract scope. The best examples are BSE Drawings D-2230, D-2231, D-5100 through D-5103. Beale St. Zone 4 sewer/storm drain piping decommissioning/abandoning scope is defined in the Webcor-Obayashi RUP Relocation of Utilities

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please advise on decommissioning the utilities after dewatering work has been completed.

Project . Coordinate Beale St. Zone 4 sewer/storm drain piping decommissioning/abandonment with the Webcor-Obayashi RUP Relocation of Utilities Project Manager.

Parcel N Zone 4 :Refer to RFI 84.1 for Parcel N: The decommissioning or abandoning these Parcel N utilities which is outside the scope of the Demolition, BSE contract and the RUP contract. Webcor-Obayashi RUP Relocation of Utilities Project Manager will be contacted for reroute decommissioning, or abandonment of these Parcel N parking lot storm drain lines.

T-0111 **301 Mission Wall - Torque Spec** **Closed** **04/22/2011** **05/02/2011** **04/28/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: S-5000

In regards to the structural steel bolts at the 301 Mission Wall, please confirm that the torque spec is 150 ft-lbs, per attached email.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, structural steel anchor bolts shall be installed snug tight to a torque of 150 ft-lbs.

T-0112 **BSE - Project Control** **Closed** **04/22/2011** **05/02/2011** **05/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-0100 and Specification Section 01 10 50

Drawing GT-0100 shows four control points. BBII's surveyor, KCA Engineers, have surveyed their locations and found the following:
1) Survey Control Point #101: This point has been damaged - the brass disk is missing, though the rivet remains in the concrete sidewalk. There are score lines in

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response provided by PMPC.

RFI T-0112 is a Survey and Control issue. Webcor/Obayashi is responsible for coordination with their subcontractors and this RFI lies within their domain of responsibility. Please ask W/O to coordinate their Survey Subcontractor (Contract T05.1 Chaudhary & Associates) provide a response to their BSE Subcontractor (Contract TG03 - Balfour Beatty).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

the concrete BBII assumes would intersect on the brass disk.
2) Project Benchmark Point #54: KCA was able to locate this point. Please confirm that it is acceptable to use the coordinates of this point for horizontal control, even though it is listed as a benchmark.
3) Survey Control Point #106: KCA was unable to locate this point.
4) Survey Control Point #105: KCA was able to locate this point.

With the current condition of the provided control points, KCA is not able to do a hard check on their survey work.

Please confirm that all the control points above may be used for the TG03 BSE Trade Package. Please reset the damaged or missing points for KCA's use.

1) Regarding Control Point #101 by Martin M. Ron (Drawing GT-0100), TJPA is requesting a meeting with Martin M. Ron (DPW). In the meantime W/O surveyors should assume that the riven and cross marks constitute the mark on Drawing GT-0100 and to submit the results of their check survey against the other remaining points to see if the given coordinates match those given on Drawing GT-0100. W/O should consult with Chaudhary & Associates now under subcontract to W/O, as to how Chaudhary & Associates used this point and whether it was damaged then. TJPA will set up a meeting with Martin M. Ron, Chaudhary & Associates, W/O and TJPA representatives.

2) Regarding Project "Benchmark" Point #54, the coordinates of this point given on Drawing GT-0100 are given for use as line survey control as well as elevation.

3) Regarding Control Point #106 (Drawing GT-0100), W/O is to consult with DPW and Chaudhary & Associates as to their knowledge of the last time this point was located. This can be done by W/O alone or in the meeting the TJPA representative will set up. With the 3 remaining Control Points #101, #054, #105 (Drawing GT-0100), W/O should use the given position of Control Point#106. If this has already been done TJPA will re-establish this Control Point.

4) No action requires.

TJPA requests that the BBI and W/O surveyor submit their notes on what they have completed and verified to date.

T-0112.1 **BSE - Project Control** **Closed** **05/20/2011** **05/30/2011** **05/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:
Reference RFI#T-0112, Transmittal No. 140-01593, Sheet

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Adopting Chaudhary's survey grid control document is

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

GT-0100, Specification Section 01 10 50, and attached document

Chaudhary's Transbay "Survey Grid Control Document" was transmitted to Ed Sum (TJPA) and Agnes Katanics (URS) on 5/18/11 (transmittal #140-01593, attached) following a meeting which took place on 5/17/11 with URS, F3, DPA and TJPA. In an effort to confirm the four survey control points shown on GT-0100, Chaudhary discovered that Point #101 and Point #106 were missing.

Due to the missing points, W/O requests TJPA to either approve Chaudhary's Survey Grid Control Document included as part of transmittal #140-01593, or have the monuments missing from GT-0100 replaced.

acceptable.

T-0112.2 **BSE - Project Control** **Closed** **07/14/2011** **07/24/2011** **07/14/2011** **Potentially** ☐

From: Webcor Construction LP Tim Maxwell **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Ted Williams

Co-Author:

REQUEST:

Reference RFI #T-0112.1 and attached drawing

Last month Webcor/Obayashi was requested to mark an alleged property line @ 199 Fremont between Beale and Fremont streets per the 12-10-2008 CAD file data provided by the Bruce Storrs of DPW. Chaudhary & Associates completed the task and the results were forwarded for TJPA review on June 20, 2011 via Transmittal # 140-01864. In that transmittal it was recommended that alleged Property Line (PL) data points as indicated within the attached (coordinates added) be presented to Bruce Storrs of DPW for verification of PL data accuracy. Has this been accomplished and, if so, what was the outcome?

Be advised that as previously confirmed in RFI #T- 112.1 Webcor/Obayashi is ONLY using Grid Control for construction reference, layout and staking.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0113	BSE - Unforeseen Object - Metal Casing In Production Pile Extraction Area	Closed	04/22/2011	05/02/2011	04/25/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference attached sketch and photo

While BBII was excavating the production pile extraction area and exposing the timber piles on 4/19/11, a metal casing was discovered close to pile 302050.
Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This metal casing is to be removed per Spec. 02-41-01 "Demolition - Existing Underground Structures". If the casing is over an existing wood pile - notify the TJPA Rep/Geotech Engineer prior to removal - refer to Spec. 02-41-19..

Demolition of underground obstructions shall be per Spec 02-41-01 and Demolition Debris shall be handled in accord with Spec. 01-74-00.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0114	BSE - Monitoring Plans and Data for Zone 3	Closed	04/27/2011	05/07/2011	05/12/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Daphne Faulkner
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference Specification Section 01 35 65

As discussed at the site walk through meeting 4-18-2011; BBII requests a copy of the demolition contract monitoring plan and any data in relation to demolition contract mitigation monitoring of Zone 3.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please clarify specifically what mitigation monitoring data you are requesting. Specification Section 01 35 65 is comprised of many different required submittals so we need a clarification on which one you are requesting

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0115	BSE - Hazardous Material Removed From Site in Zone 3	Closed	04/27/2011	05/07/2011	05/02/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference Specification Section 00 03 35

Please confirm that all hazardous material has been removed from site per the extent of demolition contract drawings for zones 3.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Hazardous material has been removed from site per the extent of demolition contract drawings for zones 3. Zone 3 above ground structures and foundations were demolished to extent shown on Demolition contract drawings and Demolition Spec. 02-41-00. Hazardous materials abatement scope was completed within the scope of demolition only. Refer to Demolition Drawings D-1050, D-1051 and D-1073 and D-1074 for representation of limits of structures demolished and hazardous material abatement. Utilities were cut/capped and were demolished to extent shown on Demolition contract drawings and Demolition Spec.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

02-41-00. Refer to drawings D-1202-1207 and 1210-1215 inclusive for representation of limits of extent of removal of utilities.

BSE Contractor to handle remaining Hazardous Materials in accord with their contract documents. Ref: BSE Drawings D-5101 and D-5102 for extent of BSE Demolition.

BSE Contractor to handle remaining demolition and abatement in accord with BSE Spec 00-08-14 Health and Safety Criteria Para 1.2 and 1.3 Lead hazards, BSE Spec. 02-41-01 "Demolition" and BSE Spec. 01-13-50 "Hazardous Materials Procedures".

T-0116 **BSE - Demolition Contract Drawings** **Closed** **04/27/2011** **05/07/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Please supply BBII with an electronic copy (PDF), of the 'issued for construction' drawings for the demolition contract (EBI).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII should contract Webcor-Obayashi for an electronic copy (PDF), of the 'issued for construction' drawings for the demolition contract.

T-0116.1 **BSE - Demolition Contract Drawings** **Closed** **05/03/2011** **05/13/2011** **05/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference response to RFI#T-0116

Webcor-Obayashi cannot verify "issued for construction drawings" in PDF format for the demolition contract in the past communications.
If the confirmed drawing set was sent to Webcor-Obayashi before, please let us know the transmittal number and the date.
If not, please send us the drawing set immediately.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition Issued for Construction drawings were issued to W/O on 12/8/2010 via Transmittal #110-00076 in Project (110) in Constructware. Please find a copy of the transmittal attached for your use.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

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Please supply BBII with an electronic copy (PDF), of the 'issued for construction' drawings for the demolition contract (EBI).

T-0117 **BSE - As-built Drawings for Utility Decommissioning in Zone 3** **Closed** **04/27/2011** **05/07/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Demo Contract Drawing Sheets D-1202,D-1203, D-1204, D1205, D1206 and Specification Section 02 41 01

Please provide as-built drawings for all utilities that have been decommissioned, or cut and capped per the demolition contract for Zone 3.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition as-built drawings for Zone 3 utilities that have been decommissioned, or cut and capped per the demolition contract are attached. Drawing D-1202-1207 and D1210 through D1215 inclusive.

NOTE: Demolition contractor is not contractually responsible for submitting their As-Built drawings until completion of their contract which is June 2011 ref. Spec. 01-17-00 for Demolition Contractor.

T-0118 **BSE - Crash Cushion Modules on Natoma & Minna Street** **Closed** **04/27/2011** **05/07/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Demo Contract Drawing Sheet D-1007 - Note 5

Currently the crash cushion or k-rail as specified in the Demo Drawing D-1007 note 5 has not been installed. Please confirm the above will be installed by the demo contractor.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Demolition Contractor will install Crash Cushion modules at K -Rails installed on Fremont St (east), Natoma St. and Minna St. in accord with Demolition Drawing D-1007.

T-0119 **301 Mission Wall - Metal Stud Layout Alignment** **Closed** **04/28/2011** **05/08/2011** **05/05/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: RFI T-0098, Sheet A-6000

Per response to RFI T-0098, the 10" x 10" tube steel columns are to be set in the center of the 14" concrete wall. The architectural drawings (sheet A-6000 dated 11/04/10) show 10" metal studs aligning with the 10" tube steel, however, per response to RFI T-0098, the tube steel is to shift in the architectural drawings 1/2" and align in the center of the concrete wall. Please confirm that the metal studs will remain per plan, and not shift as the steel tube has.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The light gauge steel studs will remain per plan as shown in Section B on S-5000. The light gauge steel studs shall be placed on both sides of the tube steel as shown on the contract documents.

Per direction provided at 5/2 weekly coordination meeting, 1 - 5/8" light gauge studs shown on Detail A, Sheet A-6000 shall be in line with 10" light gauge steel stud (i.e. both sides of tube steel).

T-0120	301 Mission Wall - Stone Panel Layout	Closed	04/27/2011	05/07/2011	05/20/2011	Potentially ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0042

Per RFI T-0042, the concrete wall height increased to achieve a min 18" above the finished paver surface. Please clarify if the exposed concrete areas shown on A-5000 are to to be min 18" above the pavers. If so, the 1st stone above the exposed concrete would have to be trimmed. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per contract documents, at exposed concrete wall sections, full height of concrete wall above finished top of paver (and finished concrete walks at east and west ends) shall be exposed.

Cutting of stone panel(s) to a height of approximately 6.84" and cutting of stone panels in an "L" shape as shown in attached sketches, "Attachment for RFI T-0120" and "Part of Sheet A-5000" transmitted/emailed to URS from Webcor-Obayashi on 5/19/2011 is acceptable.

Per contract documents, at east end of wall (east of east most section of exposed concrete wall) stone panels shall extend down to finished top of paver/concrete walk. See annotation by URS on attached sketch, "Part of Sheet A-5000_Annotated by URS."

(Answered by: David Fyfe on 05/20/11)
(Response forwarded to Webcor-Obayashi on 05/22/11)

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0121	**301 Mission Wall - Aluminum Panel Layout**	**Closed**	**04/27/2011**	**05/07/2011**	**05/10/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: A-5000

Regarding the aluminum panels on the 301 Mission wall, bottom panel at each end of the wall will need to be trimmed. The standard panel is 2-11 1/2" tall, but the bottom panel measures out to be 2'-1"+/- on the west end and 2'-9"+/- on the east. Please confirm that this is acceptable. If not, please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per contract documents aluminum panels shall match original aluminum panels. Existing bottom aluminum panel(s), as shown in photos on sheet C-5010, have an approximate 1" gap between the bottom of panel and top of existing grade.

Contractor shall place bottom aluminum panel(s) to provide an approximate 1" gap between bottom of panel and top of finished/existing grade. It is acceptable to provide bottom panel(s) that are less than 2' - 11-1/2" tall to provide an approximate 1" gap between bottom of panel(s) and top of finished/existing grade.

T-0122	**BSE - Hazardous Material Removed From Zone 3 (Potential Contaminated Material**	**Closed**	**04/29/2011**	**05/09/2011**	**05/02/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 00 03 35, 1.2

During Investigation of Zone 3, BBII discovered potential lead based material existing on site. The specific area of concern is the pedestals on Fremont Street.

Please confirm that all contaminated material (specifically the referenced pedestals) as specified in the specification section 00 03 35, Article 1.2 has been removed and abated by the Demolition Contractor.

BBII is scheduled to remove these pedestals next week and cannot proceed with this critical work until it is confirmed that the site is cleared of lead based materials as required by the Specifications.

The TJPA's attention is directed to the following Section of the Specifications:

SECTION 00 03 35 ¿ EXISTING CONDITIONS: HAZARDOUS MATERIALS

"1.2 HAZARDOUS MATERIALS REPORTS

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Hazardous material has been removed from site per the extent of demolition contract drawings for zones 3 - this does not include the "pedestals" in Zone 3. The building and above ground structures were demolished to the extent shown on Demolition contract drawings. Hazardous materials abatement scope was completed within the scope of demolition only. Refer to Demolition Drawings D-1050, D-1051 and D-1073 for representation of limits of structures (specifically the referenced pedestals) demolished and hazardous material abatement.

BSE Contractor to handle remaining demolition and abatement in accord with BSE Spec 00-08-14 Health and Safety Criteria Para 1.2 and 1.3 Lead hazards, BSE Spec. 02-41-01 "Demolition" and BSE Spec. 01-13-50 "Hazardous Materials Procedures".

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

A. The TJPA's environmental consultants have surveyed the facility for the presence of various hazardous materials. Materials investigated may include asbestos, lead, PCB ballasts, mercury containing lamps, contaminated soils, underground storage tanks, and other hazardous materials. The demolition contractor for the Demolition project (Evans Brothers Inc.) is responsible for removing and abating products containing asbestos, lead, or PCB ballast, and mercury-containing lamps."

T-0123 **301 Mission Wall - SASM and Insulation Tape Materials** **Closed** **04/29/2011** **05/09/2011** **05/05/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: S-0002, A-6000

Clarification is requested regarding the notes and details on Sheet S-0002, and A-6000 (see attached marked up sheets). Note 1 within the "WALL FINISH" section of the notes on page S-0002 says to use insulation separation tape between treated wood surfaces and steel framing. In note 2 on page S-0002, SASM is specfied as a different material, but on the details of page A-6000 SASM is shown to be used in the same areas as is described for the insulation tape. It is the interpretation of Transworld that the insulation tape is to be used at all locations referenced on sheet A-6000 as "SASM". Please clarify if these two different materials are to be applied in the same areas.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Insulation tape shall be used between all treated wood and metal surfaces. SASM shall be used as a waterproofing barrier around the entire wall as shown on the contract documents.

These two materials (SASM and insulation tape) may overlap in certain locations where insulation tape is provided between treated wood and metal surfaces and where waterproofing is also required.

T-0123.1 **301 Mission Wall - SASM and Insulation Tape Materials** **Closed** **05/06/2011** **05/16/2011** **05/09/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: RFI T-0123, A-6000, S-0002

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is not a new contract requirement. SASM is referred to on A-6000 in two different instances. It is

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The response provided to RFI T-0123 is in conflict with the contract documents. The response requires the contractor to create a waterproofing barrier for the entire length of the wall; however, the contract documents do not indicate a complete waterproofing barrier. References to SASM on page A-6000 instructs the application of SASM at all points where pressure-treated or moisture resistant wood comes in contact with metal. This application instruction, therefore, would not result in a waterproof barrier along the entire length of the wall. Please clarify if on the details "SASM" was intended to read "insulation tape", because the application locations of the SASM, as per A-6000, are called out and described to be at all locations of the insulation tape defined on S-0002.

In the alternative, is it the intention of the design team to apply additional waterproofing not shown on the contract documents?

referred to when there is treated wood blocking/ elements. At these locations, the insulation tape shall be used. There is also SASM shown on the front and back face of the wall as shown on Detail D, A-6000. Contractor shall provide SASM as shown.

T-0124 **301 Mission Wall - Dimension Between Screen Wall and Existing Garage Wall** **Closed** **05/02/2011** **05/12/2011** **05/31/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: C-2000

The dimension between the new location of the 301 Wall and the existing garage wall is approx 8". Please advise as to how this gap is to be closed off.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Gap shall be closed for the full height of the new interim screen wall and width of gap. The closure of this gap must meet ADA handrail loading requirements as well as the wind and seismic loading requirements. See attached Figures 1, 2, and 3 for recommended details of gap closure.

Per discussions at weekly meeting on 5/23/2011, Contractor may provide suggested alternatives to address the 8-inch gap for URS to review.

T-0124.1 **301 Mission Wall Enclosure Panel Method of Connection** **Closed** **09/01/2011** **09/16/2011** **09/13/2011** **Potentially** ☐

From: Webcor Construction LP Michael Constable **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: RFI T- 0124, URS response to RFI T- 0124

Per recent Change Order negotiations for the required 301 Mission Wall end panel per RFI # T-0124, the panel detail is now being revised to a two-piece, glued enclosure panel. Please confirm the method of two-piece panel attachment to the existing wall is the same as that indicated in RFI # T-0124.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Material substitution (two 1/8" thick aluminum panels glued together in lieu of a single 3/16" thick aluminum panel), "Proposed gap closure per RFI #T-0124-Option3" provided in attached Change Request No. 10C from Transworld Construction Inc. to Webcor/Obayashi dated 7/26/2011 is acceptable, provided aluminum panels are fastened to metal stud with rivets or sheet metal screws at 24" o.c.

T-0125 **BSE - CDSM Corner Overlap** **Closed** **05/02/2011** **05/12/2011** **05/06/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-2101-2103, GT-5101 and Specification Section 31 56 13

In the Owner's preferred method of soil mixing, the triple auger method, a continuous wall is formed by drilling adjacent sets of columns with a 100% overlap of the outer columns (see 2/GT-5101). A CDSM wall's strength, permeability, and homogeneity is largely contingent upon this remixing action. This overlap also helps ensure the verticality and alignment, as the augers in the secondary panels tend to follow the path of the outer columns of the primary panels. Based upon the beam and column layout shown in GT-2101-2013, the corners formed by Wall Segment A/33.5-35 & 35-1 and R2-1 & X1-1 do not receive the complete remixing obtained by the typical 100% outer column overlap. These corner details are atypical compared to industry standards, and will lead to permeability issues. Is it acceptable to move a small number of beams slightly closer together (~0.1') near those corners, such that the panel layout is shifted enough to have a 100% column overlap at the corners?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup received from DND the two sketches attached to this response at the BSE meeting on May 4, 2011 as further clarification of the Contractor's proposal. The Contractor's proposal is acceptable.

T-0126 **BSE - Confirmation of Utility Abandonment on Fremont St, East side of Phase 1 El** **Closed** **05/02/2011** **05/12/2011** **05/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

In order to drive sheet piles for the hammer head wall location along Fremont St and the North West Corner of Zone 4, BBII requests confirmation of the abandonment of all utilities east of the PG&E electrical duct bank. BBII also will need the As-Build drawing of the PG&E duct bank location.

BBI needs this information to proceed on the extra unforeseen concrete wall in the hammer head area of the buttress wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Today, 5/11, BBI has sawcut AC and removed one lane-width and two laborers have exposed the utility lines in the street east of the PG&E duct bank. Verizon came and cut two of their 4" ducts. The remaining lines will be identified by the utility subcontractors in the next day or two. Please contact Jason Dunne (W/O) for the field conditions of abandoned utilities.

T-0127 **BSE - Openings Below Screen Wall at 301 Mission Building** **Closed** **05/04/2011** **05/14/2011** **05/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-2201, GT-5102 Sec. 10, and attached photos

In the northwest corner of Zone 4, BBII has exposed 2 openings below the screen wall in the 301 Mission structure. The first opening is located approximately 6 feet east of gridline 27 and the second opening is located approximately 8 feet east of gridline 29. These openings are approximately 18" x 36" in size. (See attached pictures).

These openings are not shown on construction documents. Please advise how to proceed. BBII requests an expedited response prior to the end of this week, as this matter is pertinent to backfill operation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Plugging of existing ventilation shafts/openings below screen wall is specified in the 301 Mission Interim Screen Wall contract documents. Webcor-Obayashi to coordinate all work amongst tradegroup packages/subcontractors.

T-0128 **BSE - Old Existing Concrete Floor Along 301 Mission in Zone 4** **Closed** **05/05/2011** **05/15/2011** **05/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The obstruction was removed by BBI. Remove pre-trench obstructions per contract requirements and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

During pre-trenching, BBII found an existing concrete floor along the 301 Mission St garage wall. It is located between the 301 Mission building wall and the buttress area between Grid Line 29 and 30. BBII has exposed a 20ft-30ft section of this floor (approximately on Grid Line A between Grid Lines 29 and 30), and have demolished the slab within the pre-trench area that has been exposed. It appears to BBI that this unforeseen obstruction continues further into the buttress area. If this unforeseen obstruction continues further into the buttress area, it would have to be removed so the buttress construction can continue.

Please advise on how to proceed.

Force Account agreement with TJPA.

T-0129 **BSE - Unforeseen Timber Pile in Pre-Trench Along 301 Mission in Zone 4** **Closed** **05/05/2011** **05/15/2011** **05/06/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01 and attached photo

During pre-trenching, BBI discovered existing timber piles along the 301 Mission St garage wall between Grid Lines 29 and 30. These piles are less than 1foot away from the 301 Mission St garage wall and within the CDSM shoring wall limits. These unforeseen piles need to be removed as soon as possible. Please advise on how to proceed.

W/O requests that the Engineer Of Record (Arup) review this on site with BBII prior to responding.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup Response:

1. For the westernmost 3 timber piles along the line of piles 16 to 18'' from the face of the 301 Mission wall: in order to minimize ground loss at 20 to 30 ft depth beneath the PG+E vault and adjacent corridor, BBI needs to use best endeavors to carry out the pile removal using the method agreed following the initial trials. This means vibrating in the casing in advance of removing any of those piles.
2. For the remaining timber piles along this line, the piles are anticipated to be 30' long and will thus lie within the influence of the c. 70' deep shoring wall for the 301 Mission Low-rise parking garage. Each pile can be removed without casing, working from east to west. Concrete to be placed in the remnant pile hole as rapidly as possible after pile removal and before removal of the adjacent pile.

T-0130 **301 Mission Wall - FCR 043 Concrete Wall Crack** **Closed** **05/06/2011** **05/16/2011** **05/09/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Field Condition Report No. 043

See attached FCR No. 043. The east end of the 301 Mission concrete wall has cracks and also spalled in one corner. This had been discussed on 05/02/11, in Transworld's subcontractor meeting with Turner, URS, TJPA, Webcor-Obayashi, and Transworld. Please advise as to how Transworld is to repair the spallled corner and cracks.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Defective concrete shall be removed and concrete shall be restored in accordance with ACI 301 Section 5.3.7.3. An epoxy bonding agent shall be used in lieu of bonding grout where new concrete and existing concrete interface. After removal of the defective concrete and prior to restoration, contractor shall contact engineer to inspect the removal areas in field.

If crack(s) go beyond/into the anchor bolts and reinforcement, the concrete shall be removed minimum of 1" around the reinforcement and anchor bolts. Contractor shall shore/support the existing structural steel as necessary in order to prevent damage to other areas of existing concrete.

T-0130.1 | **301 Mission Wall - FCR 043 Concrete Wall Patch Material** | **Closed** | **06/09/2011** | **06/19/2011** | **06/13/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: FCR #043, RFI T-0130, and attached product data

Response to RFI T-0130 directs Transworld to repair the damaged concrete at the 301 Mission Wall, as described in Field Condition Report 043. Attached are product data sheets which satisfy the requirements noted in response to RFI T-0130. Please review and confirm that the attached materials are acceptable to patch the damaged concrete.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The submitted materials are acceptable to patch the damaged concrete. All materials shall be prepared, mixed and placed in accordance with manufacturers' recommendations.

T-0131 | **301 Mission Wall - Framing Modifications and Base Plate Conflict** | **Closed** | **05/06/2011** | **05/16/2011** | **05/20/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: C/S-5000, B/A-6000, attached sketches, and referenced RFI's

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Item/Issue 1) Contractor shall cut base plate neat, flush with stucco slot/face of concrete. Extent of cut(s) shall not exceed dimension(s) shown in attached

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Field verified measurements and layout for the location of the structural steel does not coordinate with the stucco inset locations as shown on detail C/S-5000. In addition framing around the perimeter of the wall (aluminum panel locations) had to be modified due to assembly and installation methods. (See attached pictures and sketches. This RFI addresses three framing issues. All issues have been discussed in the weekly 301 Mission Wall subcontractor meeting with URS, Turner, Transworld, TJPA and Webcor-Obayashi.

1.) In two of the four stucco slot locations, field conditions show that a portion of the base plate conflicts with the stucco slot. This base plate encroaches into the stucco panel per dimensions shown on the attached sketch. Please advise.

2.) The structural steel had been relocated to CL of the wall (per RFI T-0098) and therefore studs around the steel per B/A-6000 could not be set per plan. Transworld has installed hat channel metal framing to the face of the structural steel tube using fasteners into the structural steel as per RFI T-0106 as well as modified the boxed framing per attached sketches around the perimeter of the wall. Sizes of metal framing were used to align with adjacent framing per plan. This work is currently installed, please confirm framing modifications per attached marked up details are acceptable.

3.) Blocking a the top of the wall at the north side (between the framing and 8"x 8" tube steel) was not installed, as there was no room between the framing and steel. Framing was attached directly to the tube steel. See attached.

Please confirm that the framing modifications in item 2 and 3 are acceptable and provide direction at the base plate conflict per item 1.

sketch, "RFI T-0131: (Item 1) Base Plate conflict with slot locations" provided by WO/Transworld. Contractor shall field apply complete paint system as stated in contract documents following cutting procedures. Any damage to non-shink grout and/or concrete below shall be repaired. All architectural wall finishes (SASM, cement board, stone panels, aluminum panels, 3-coat stucco, etc.) shall be installed as shown on contract documents.

Item/Issue 2) We note this request is for convenience of the Contractor and on this basis take no exception to the framing modifications as shown in attached sketches, "RFI T-0131: (Item 2) Metal Stud Framing Modification at Perimeter of Wall (Aluminum Panel locations)" and "RFI T-0131: (Item 2) Metal Stud Framing Modification Surrounding Structural Steel (Slot locations)" provided by WO/Transworld. Accordingly, no change in contract and/or extension in schedule will be provided to accommodate this Contractor request. All impacts associated with proposed framing modifications, including installation of all architectural wall finishes (SASM, cement board, stone panels, aluminum panels, 3-coat stucco, etc.) as shown on contracts documents, cost and schedule shall be borne solely by the Contractor.

Item/Issue 3) Intention of wood blocking is to provide spacing and allow fastening of aluminum panels. If there is not sufficient space to provide wood blocking, it is acceptable to fasten aluminum panels directly to tube steel members and omit wood blocking on north side of wall as shown in attached sketch, "RFI T-0131: (Item 3) Omission of Blocking Between 8" x 8" Tube Steel and Framing (North Side Only). Accordingly, prior to deletion of wood blocking Contractor shall ensure all architectural wall finishes (SASM, cement board, stone panels, aluminum panels, 3-coat stucco, etc.) can and will be installed as shown on contract documents.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0132	**BSE - Lead Based Paint On Bent Pedestals**	**Closed**	**05/06/2011**	**05/16/2011**	**05/09/2011**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture — Masashi Kojima
To: Turner Construction Compan — Daphne Faulkner
Answered By: Balfour Beatty Infrastructu — Ural Yal
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:
Please see information attached regarding the paint on the old bent Pedestals existing along Fremont Street. The information provided indicates the level of lead is above the permissible level. This area is now considered part of the lead abatement program; this work will be commencing on Saturday 5/7/2011. Cost of this Lead abatement will be charged to the owner.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Voided. See the attached email on 05/09/2011.

T-0133	**BSE - CDSM Test Section & Start of Work**	**Closed**	**05/09/2011**	**05/19/2011**	**05/10/2011**	**Potentially**	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Adamson Associates, Inc — George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:
Reference Specification Section 31 56 13, 1.6. F. 1-2

Please confirm that the acceptance of Zone 4 Test Section strength and permeability results is the prerequisite to begin Zone 4 & 3 shoring work, and acceptance of the Zone 1/2 Test Section results is the prerequisite to begin work Zones 1 & 2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
ARUP Response:

The acceptance of Zone 4 Test Section strength and permeability results is the prerequisite to begin Zone 4 & 3 shoring work, and acceptance of the Zone 1/2 Test Section results is the prerequisite to begin work Zones 1 & 2.

T-0134	**BSE - 301 Mission Guide Wall**	**Closed**	**05/09/2011**	**05/19/2011**	**05/12/2011**	**Potentially**	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Transbay PMPC — Douglas Jacobson
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:
Reference Sheet GT-2103, Specification Section 31 56 13, and attached sketch

Typically in CDSM shoring, a guide frame constructed from steel beams is used, which straddles the CDSM wall. The guide frame is used to align the augers, align and place beams, and expand/collapse the drill rods. The existing 301 Mission building wall is approximately 5-6" away from the outside of the CDSM shoring wall. As such it will not permit placement of a standard steel beam guide frame. Is it acceptable to construct a temporary concrete/rebar guide wall on the outside of the CDSM wall and adjacent to the existing 301 Mission footing wall? See

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
This guide wall proposal is for Contractor convenience.

Please submit more information for this proposal, e.g., spacing, depth, and diameter of anchors/studs, discuss means and methods, and describe condition that contractor will leave the CMU wall when finished.

Once the above information is returned, TJPA will meet with 301 Mission to negotiate authorization for this proposal.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

attached sketch details of the proposed guide wall.

T-0135 **BSE - Unforeseen Timber Piles in Pre-Trench Along 301 Mission St. in Zone 4** **Closed** **05/10/2011** **05/20/2011** **05/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0129 and Specification Section 02 41 01

The response to BBII RFI 094 [RFI #T-0129] regarding the unforeseen timber piles along 301 Mission Street, "Concrete to be placed in the remnant pile hole as rapidly as possible after pile removal of the adjacent pile."

Per DND Construction, concrete backfill is incompatible with soil mixing methods. Please provide clarification on what material will be placed within the CDSM wall limits that will not conflict with the mixing of the CDSM wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The material for filling the void left by the extracted timber pile needs to be filled by a material which can be drilled by the CDSM shoring equipment.

Kevin Clinch

12 May 2011

T-0136 **301 Mission Wall - Manhole Vents** **Closed** **05/10/2011** **05/20/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference: A/C-5000,

Per Justin Burke of Turner Construction, the 3' tall sleeves on the north side of the 301 Mission Screen Wall are per PG&E preference. At Turner's request, please review the design for the sleeves as shown on C-5000 and consider a grated cover over the manholes at grade, as opposed to the 3' tall sleeves per the documents.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

5/23/11 UPDATED RESPONSE from Kevin Chiu:
Pending approval by TJPA, a CR may be issued.
==========
5/20/11 Response per Kevin Chiu:
Contractor is to eliminate the referenced "(N) 3'-0" HIGH CIP CONCRETE SLEEVE OVER MANHOLE WITH (N) KADEE S.S. CIRCULAR GRATE SATIN FINISH (TWO LOCATIONS)" per C-5000. Elimination of sleeves was agreed upon by TJPA (Brian Dykes), PG&E (Mike Balmy) and Mission Street Development (Steve Hood).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

5/13/11 Response per URS' David Fyfe:
3' tall concrete sleeves are required per the Easement Agreement between the TJPA and Mission Street Development, LLC (MSD). Eliminating use of 3' tall concrete sleeve(s) and providing grated PG&E manhole lid(s) at existing grade elevation must be approved by TJPA, MSD, and PG&E.

T-0137 **BSE - Unforeseen Obstruction - Concrete Lip Off 301 Mission St Garage Footing** **Closed** **05/10/2011** **05/20/2011** **05/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01 and attached photo

During Pre-Trench, BBII found an existing concrete lip/shelf footing along the low-rise 301 Mission St. garage wall. The footing consists of reinforced concrete, and is a part of the 301 Mission St. garage structure. It is not a separate structure, and it protrudes into the CDSM wall location in multiple places and does not allow enough room for the drill rig to construct the CDSM wall. The lip/shelf protrudes out at the western corner of the 301 Mission St. garage and goes to the east 81-feet. The footing is then flush with the 301 Mission St garage wall for 67-feet.

This is a potential delay in pre-trenching and the installation of the CDSM wall. It is a part of the 301 Mission St garage, and will need to be removed flush with the 301 Mission St. wall.

Please see photo attached.

Please advise BBII as to how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Previously a much larger section of concete footing within the TJPA limits was removed with a breaker.

The BSE Contractor BBII should determine the property line and the extent that this protrusion from 301 Mission is within the TJPA limits.

If the 3" protrusion is within the TJPA construction limits beyond the property line of 301 Mission the "3-inch lip" should be removed with smaller breaking tools and concrete chipping tools back to the property line limits.

T-0138 **BSE - Unforeseen Timber Pile in Pre Trench Along 301 Mission St. in Zone 4 - Con** **Closed** **05/10/2011** **05/20/2011** **05/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Response to RFI #T-0129 [BBI RFI 094] and Specification Section 02 41 01

Using the current, approved means & methods set forth in RFI Response #T-0129, there is an extremely high probability that the vibratory hammer or casing will come into contact with the existing 301 Mission wall. Despite multiple tag lines and attempts to swing away from the wall, BBII cannot guarantee the equipment will not contact the wall.

BBII requests a revised methodology to extract the unforeseen timber piles or to protect the existing wall which will reduce the of damaging the wall at 301 Mission. BBII is willing to meet with the Engineer to discuss and develop this method.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

As discussed in the May 11, 2011 BSE meeting, Arup, in our response to RFI T-0129, is seeking the Contractor's "best endeavors" at using the casing on the three (3) timber piles furthest west. The remaining seven (7) or so piles to the east of these piles may be pulled directly without casing as long as there is replacement filling of the timber pile void as soon as it is pulled.

The Contractor, TJPA and Arup will observe the Contractor's "best endeavors" to install casing and pull each of the 3 western-most timber piles at a date and time (Friday May 13, 2011 mentioned as the earliest) chosen by the Contractor. Mechanical methods to control and hold the vibratory pile puller away from the wall, as well as any method of pre-protection of the aluminum panel clad corner, are suggested.

5/11/2011 Roger Rothenburger

As discussed in the Wednesday May 11, 2011 BSE meeting, the Engineer (Arup) is seeking (response to RFI T-0129) "best endeavors" to use the casing on the three (3) timber piles furthest west. The remaining seven (7) or so piles to the east of these piles may be pulled directly withou using casing as long as there is replacement filling of the timber pile void as soon as it is pulled.

TJPA is aware of the risk of exterior damage to the 301 Mission Parking Struture at the corner and sides, but weighs the potential for more serious structural damage in the basement around the PG&E vault to be greater risk than the exterior damage.

The work is in accordance with the force account directive CRT-010 for removal of obstructions so the risk becomes part of the cost which TJPA is willing to bear for avoiding potential greater risk of basement structural damage.

(1) At a date and time (Frday May 13, 2011 mentioned

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

as the earliest) chose by the BSE Subcontractor, BBII, TJPA representatives including the Engineer (Arup), Architect (AAI) will observe the BBII "best efforts" to install casing and pull each of the 3 wesrtn most timber piles. Mechanical methods with the excavators or other equipment to control and hold the vibratory pile hammer away from the wall are suggested as well as any method the experienced work crews suggest. An attempt to protect the aluminum panel clad corner by any means is also advisable.

(2) The material for filling the void left by the extracted timber pile needs to be filled by a material which can be drilled by the CDSM shoring equipment. A sand-water solution with some light bonding material (bentonite, 1/8 +/- bag of cement or other suggested material) that is drillable should be submitted by BBII. The CDSM shoring contractor suggestion would be helpful. A strength of 50psi was mentioned in the meeting but the choice belongs to BBII fo their CDSM equipment.

Please determine a date and time for the trial casing installation and to determine the desired CDSM "drillable mix"

T-0138.1 **BSE - Unforeseen Timber Piles in Pre Trench Along 301 Mission St. in Zone 4 - Co Closed** **05/20/2011** **05/30/2011** **05/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference response to RFI#T-0129, RFI#T-0138, Specification Section 02 41 01 and attached documents

The response to BBII RFI 094 [RFI#T-0129] regarding the unforeseen timber piles along 301 Mission Street, "Concrete to be placed in the remnant pile hole as rapidly as possible after pile removal of the adjacent pile." Concrete is not compatible with CDSM mixing.

After clarification on the issue in RFI Response #T-0138,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Mix FOA100CX is acceptable. Contractor shall verify that this mix is acceptable to the CDSM shoring wall installer.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII proposed and furnished Central Concrete Sand Slurry Mix FOA100CX under the direction of the Engineer. The Engineer of Record's field engineer reviewed, approved and observed the installation of this mix in the pile voids along 301 Mission Street. The mix was recommended by ARUP Field Engineer prior to placement in the field, please confirm that this mix design meets the field engineer¿s requirements.

Attachments: Mix as requested is being submitted for record.

T-0139 **BSE - Unforeseen Timber Pile in Pre Trench Along 301 Mission St. in Zone 4 - CR 1** **Closed** **05/10/2011** **05/20/2011** **05/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Response to RFI #T-0129 [BBI RFI 094] and Specification Section 02 41 01

Please clarify if the removal of the unforeseen timber piles along 301 Mission Street will be reimbursed by CR T-010.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed in the BSE meeting of Wednesday, May 11, 2011 the removal of the unforseen piles in the CDSM shoring wall pre-trenching along 301 Mission is paid under CRT-010.

T-0140 **BSE - Bridges Submittals** **Closed** **05/12/2011** **05/22/2011** **05/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13

BBII proposes breaking up the bridge submittals to allow submittal fundamental structural drawings and calculations for the bridge, independent of accessories and specialized components necessary for a complete bridge package.

Specifically, the first set of submittals would include Structural drawings and calculations for the bridge structure from the pavement and decking down - piers, cap beams, girders, abutments, and associated

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The approval to split the temporary bridge submittal into two submissions is provided subject to the following conditions:

1. Items which are provided in the initial submission shall be designed for all loading to support all features which are deferred. This includes loading attributable to but not limited to the following: operable gates; vehicle barriers; required thickness of pavement for all purposes, added thickness of paving for pedestrian areas, curbs and provisions for slope inducement for

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

connections. Additionally, it will include standard edge railing/barriers.

Follow on coordination submittals will include traffic coordination components, gates, hardware, locking mechanisms, fences, Muni OCS components, utility support details, surface grading and drainage.

BBII believes that it will take some time to finalize a complete bridge package that satisfies all interested parties. Isolating the core bridge structure into it's own submittals will ensure that detailing and fabrication of the main components of the bridge will not be held up while working out the details.

Please confirm this is acceptable

handling of surface water; support for utilities; lighting poles/standards; OCS poles/wires; and any other items specifically required to meet city of SF requirements brought to the attention of the contractor team by review meetings with city staff.

2. Items deferred to the second submission shall be in full conformance with specifications requirements.

3. Any items for which a deviation from the specifications is sought shall be fully identified in the first submission.

T-0141 **BSE - Inclinometers IW-5 to IW-8 Install Locations** **Closed** **05/12/2011** **05/22/2011** **05/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-1301, GT-1302, GT-2201 & 13/GT-5101 and Specification Section 31 56 13

Please clarify if locations IW-5 to IW-8 exist. They are not shown on GT-1301 and GT-1302.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Inclinometers IW-5 to IW-8 do not exist.

T-0142 **BSE - Instruments I-104 to I-107** **Closed** **05/13/2011** **05/23/2011** **05/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-1301, GT-1302, GT-2201, & 13/GT-5101 and Specification Section 31 56 13

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Instruments I-104 to I-107 require detail 13/GT-5101.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

On Sheet GT-2201, please confirm that Instrument I-104 to I-107 is detail 13/GT-5101.

T-0143 **BSE - Confirmation of Utility Decommissioning and As-Builts for Fremont Street** **Closed** **05/16/2011** **05/26/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2230 and attached sketch

During BBII potholing work on the Fremont street hammer head, BBII exposed the existing live PG&E concrete duct bank. The duct bank is located under BBII Buttress drill pad (see attached sketch), the drill pad is scheduled to be poured 5-26-2011/5-27-2011. BBII has concerns that the duct bank will not be able to support the load for the drilling equipment. The concrete duct bank will need to be removed prior to drill pad installation. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Removal of existing duct bank is in RUP scope, see U-1123. Coordinate BSE work activities with RUP scope. Target date given by PG&E to have duct bank decommissioned is 6/24/11. If RUP's removal of duck bank is not complete prior to drill pad installation, BBI is to protect the existing utilities.

T-0144 **BSE - Unknown Concrete Structure along 199 Fremont St in Zone 4** **Closed** **05/18/2011** **05/28/2011** **05/24/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13

BBII discovered the unforeseen concrete structure in the attached photo. TIlls concrete mass is unknown and is in direct conflict with the BSE CDSM wall.
The concrete mass is approx 2ft wide and extends 8ft depth the entire between GL J 30-33.5 adjacent 199 Fremont Street building. During the excavation at 8ft there was water egress into the excavation from underneath the concrete structure see photos attached.
BBII requests immediate direction from the TJPA on this issue.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition of underground obstructions shall be per Spec 02-41-01 and Demolition Debris shall be handled in accord with Spec 01-74-00.

5/20/2011 - George Metzger

ARUP Response:

If the CDSM shoring wall is to be installed in the location shown, then the material which is in the way, including any rubble which will interfere with the soil mixing for the CDSM wall, will need to be removed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Arup requests TJPA to provide direction to the Contractor regarding removal of the obstacles encountered.

T-0145 **BSE - Existing Concrete Footing Gridline J between Gridline 26.5-30 along 181 Fre** **Closed** **05/18/2011** **05/28/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 00

BBII followed the method approved to remove a section of the unforeseen structure in RFI #74 & 74.1, and found a separate concrete footing bellow that. It is believed to be a footing that extends below the 177/181 Fremont St. building. The top of this footing is approximately 8 feet below the original grade, and it is approximately 3 feet wide, and 3 feet deep.
BBII is concerned with the removal of this footing and the extensive rubble that was exposed below it. When a bucket of dirt was removed along the footing, a large amount of water gushed out, from below the 177/181 Fremont St. building, and through the large amount of stone rubble that was exposed. At this point the bottom of the footing was found, and the soil was quickly replaced. This footing is within the CDSM wall extents, and will have to be removed. Due to the fragile nature, and the age of the 177/181 Fremont St. building; please clearly describe and advise.
Please See Attached Pictures.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The RFI refers to RFIs 74 and 74.1. We understand these are BBI numbers; the corresponding RFI numbers in Constructware are 103 and 103.1.

If the CDSM shoring wall is to be installed in the location shown, then the material which is in the way, including any rubble which will interfere with the soil mixing for the CDSM wall, will need to be removed. Based on field observations made earlier today, and recent email correspondence, we understand the concrete (unreinforced) basement wall immediately adjacent to 181 Fremont has been removed. Arup requests TJPA to provide direction to the Contractor regarding any additional demolition and/or excavation should it be necessary.

Adamson Associates, Inc. Comment:

CM (Turner) is to confirm that TJPA approves in writing the approach and work the Contractor proposes at this location as the Field Actives and Contractor actions may impact the adjacent property.

T-0146 **BSE - Additional Timber Piles Adjacent 177/181 Fremont Building South Zone 4** **Closed** **05/19/2011** **05/29/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference RFI#T-0103 and attached photo

During BBII demolition of the unknown concrete structure along South side of Zone 4 adjacent 177/181 Fremont building (Refer to [RFI#T-0103] BBII RFI# 74), BBII discovered timber piles beneath the unknown concrete structure - see photos attached.

The location timber piles are in conflict with the alignment of the CDSM wall. Please advise on the method of removal of the obstruction.

Note: BBII has concerns regarding the stability of the adjacent 177/181 Fremont Building (old brick structure).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

1. We suggest that the timber piles be exposed no more than 3 at a time, and that they are removed and the remnant void is infilled immediately with a material that can be drilled by the shoring wall equipment of DND. A suitable material was proposed for the similar situation adjacent to the parking garage/low rise portion of 301 Mission.

2. If more timber piles are revealed along this part of the pre-trenching, then the process in 2 above should continue along the northern flank of 181 Fremont and for a distance of 20 ft east of the northeast corner of the building.

3. 181 Fremont building is equipped with crack width gauges, and Arup staff will take readings of the gauges before and after removal of the timber piles along this length of pre-trenching provided the building owner grants us access.

4. Inclinometers to monitor the effects of the installation of the shoring wall and the subsequent train box excavation will be installed in due course.

5. The Contractor shall take appropriate measures to retain the material under 181 Fremont and keep it from sloughing into the excavation.

Adamson Associates, Inc. Comment:

CM (Turner) is to confirm that TJPA approves in writing the approach and work the Contractor proposes at this location as the Field Activates and Contractor actions may impact the adjacent property.

T-0146.1	**BSE - Additional Timber Piles Adjacent 177/181 Fremont Building South Zone 4**	**Closed**	**05/20/2011**	**05/30/2011**	**05/20/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference RFI#T-0146

Please provide the TJPA's specific written direction and procedure on how to remove the unforeseen piles along North face of 181 Fremont Street according to the response for RFI T-0146.

The contractor cannot proceed on this extra and critical work without the specific direction and procedure provided in writing by the TJPA.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Sheet pile method using sheet piles either interlocked or not interlocked for 20 feet or so, removing the piles (3ft of exposed pile required to remove) described to TJPA and its representatives this morning (May 20, 2011) on site is compliant with the Contract Specifications Section 02 41 19 (Pile Removal and Section 31 56 13 (CDSM Shoring Wall) Part 3.2 (Execution - Pre-trenching)

T-0146.2 **BSE - Additional Timber Piles Adjacent 177/181 Fremont Building South Zone 4** **Closed** **05/23/2011** **06/02/2011** **05/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Daphne Faulkner

Answered By: Turner Construction Comp Kevin Chiu

REQUEST:

Reference RFI#T-0146.1

Based on the joint meeting between W/O, BBII and the TJPA on 5/23/2011, BBII would like to confirm the following:

181 Fremont Street Pile Extraction:
1. BBII will install additional survey control to establish the back of the shoring wall limit.
2. BBII will contact DND Construction to confirm the allowable distance between an existing pile and the back of the shoring wall.
3. BBII will expose, in the presence of the engineer, 3 piles at one time.
4. BBII and the Engineer will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.
5. BBII will install flat sheet piles between the building and the wood piles to prevent caving of soils under the building.
6. BBII will extract the wood piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.
7. BBII will backfill the void with low strength material

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Brian Dykes, this work is authorized to proceed. Allowable work hours will be established after 199 Fremont pile extraction begins.

5/24/2011 - George Metzger

ARUP Response:

The procedure described is consistent with that discussed and agreed to at yesterday's meeting with the following exceptions:

Item 4 shall read: BBI and TJPA will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall. Arup will be on site to assist the TJPA.

The Contractor may wish to consider placing the steel sheet prior to excavating to retain the material under 181 Fremont and keep it from sloughing into the excavation.

Items 10 and 11 will be reviewed by others.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Central Concrete Mix FOA100CX (RFI #T-0138.1).
8. BBII will backfill the piles.
9. BBII will remove the sheet piles and start over with Step 3.
10. All of this work will be tracked and compensated on force account under CR T-010.
11. Similar to the extraction in front of the 301 Mission garage wall, BBII will take every precaution to avoid damaging the adjacent wall; however, due to the proximity of the hammer to the wall, BBII will not guarantee not damaging the wall. If damage to the adjacent wall occurs in any phase of the pile extraction operation described above, BBII will be compensated for repairs under CR T-010 as well.

Please confirm the above as soon as possible. In addition, BBII requests immediate confirmation of allowable work hours for the work described above.

T-0146.3 **BSE - Additional Timber Piles Adjacent 177/181 Fremont Building South Zone 4** **Closed** **05/23/2011** **06/02/2011** **05/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0146.2

The response RFI T-0146.2 did not answer for Item 10 and 11. Please respond for Item 10 and Item 11.

RFI#T-0146.2 Question:

Reference RFI#T-0146.1

Based on the joint meeting between W/O, BBII and the TJPA on 5/23/2011, BBII would like to confirm the following:

181 Fremont Street Pile Extraction:
1. BBII will install additional survey control to establish the back of the shoring wall limit.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The row of timber piles closest to 199 Fremont are only 6"-9" clear of the 36-inch theortical CDSM wall thickness. TJPA in order to avoid the potential risk of these timber piles some of whom are canted and not straight pulled if anyy part of the pile is within 12" of the theoretical CDSM wall line. Since this work has previously been classified as an "unknown obstruction" paid on force account; if there is damage to the 199 Masonry wall that the cost of repair is considered part of the force account work. BBII is to exert efforts to avoid damage and use the method of pulling the piles that gives least amount of risk for damage to the masonry wall. This response is only for 199 Fremont. Discussions must be held when starting pile removal along 181 Fremont.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2. BBII will contact DND Construction to confirm the allowable distance between an existing pile and the back of the shoring wall.
3. BBII will expose, in the presence of the engineer, 3 piles at one time.
4. BBII and the Engineer will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.
5. BBII will install flat sheet piles between the building and the wood piles to prevent caving of soils under the building.
6. BBII will extract the wood piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.
7. BBII will backfill the void with low strength material Central Concrete Mix FOA100CX (RFI #T-0138.1).
8. BBII will backfill the piles.
9. BBII will remove the sheet piles and start over with Step 3.
10. All of this work will be tracked and compensated on force account under CR T-010.
11. Similar to the extraction in front of the 301 Mission garage wall, BBII will take every precaution to avoid damaging the adjacent wall; however, due to the proximity of the hammer to the wall, BBII will not guarantee not damaging the wall. If damage to the adjacent wall occurs in any phase of the pile extraction operation described above, BBII will be compensated for repairs under CR T-010 as well.

Please confirm the above as soon as possible. In addition, BBII requests immediate confirmation of allowable work hours for the work described above.

T-0146.4 **BSE - Additional Timber Piles Adjacent 177/181 Fremont Building South Zone 4** **Closed** **05/27/2011** **06/06/2011** **05/31/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Per Turner's request on 5/27/2011 this RFI is being asked, to modify the 177/181 Fremont pile extraction procedure

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Item 8 - BBI shall make every attempt to ensure voids are completely filled but is not required to test/verify

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

as desired by ARUP:

Based on the revised proposal for unforeseen pile extraction work along 181 Fremont St. from ARUP, BBII (W/O) can agree with revisions as the follows:
- Item 6 should read, "BBII will extract the piles with vibratory hammer only as necessary. BBII will use as little vibration as possible to remove the piles from the ground. BBII will perform dewatering enough to be able to connect the hammer to the pile."
- Item 8 should read, "BBII will back fill the pile voids using a tremie pipe of minimum length 20ft attached to the concrete bucket. The tremie shall be inserted as far into the pile hole as possible prior to pouring the concrete, and the concrete shall be placed using normal tremie techniques. BBII will make efforts to pour the material into the void as possible, but BBII is not responsible to eliminate void completely."
Other items shall remain the same.

Please also clarify that the response from RFI#T-0146.3 stating "Since this work has previously been classified as an "'unknown obstruction" paid on force account; if there is damage to the 199 Masonry wall that the cost of repair is considered part of the force account work. BBII is to exert efforts to avoid damage and use the method of pulling the piles that gives least amount of risk for damage to the masonry wall." is this instead, meant to address the property and work related to 177/181 Fremont? If not, please address the question regarding 177/181 address.

that the voids are completely filled.

Last paragraph of the RFI - Correct. RFI response from T-0146.3 should read 177/181 Fremont in lieu of 199 Fremont.

5/28/2011 - George Metzger

ARUP Response:

Based on additional observations made 03/27/2011of the pile pulling process adjacent to 199 Fremont, Arup has the following comments and recommends revisions to the procedure as noted below:

Item 6 is acceptable.

Item 8 should be modified to read, "BBII will backfill the voids using gravity fall method immediately after pile is pulled. BBII will accomplish this by having the concrete hopper filled and setup to pour prior to the final pull of the each individual pile, with the hopper's chute aimed at the pile. As soon as the pile is lifted from the void, the concrete is released from the hopper."

The last sentence in Item 8 in the RFI "BBII will make efforts to pour the materials into the void as possible but BBII is not responsible to eliminate void completely," shall be reviewed by the TJPA.

The last paragraph of the RFI shall be reviewed by others.

The Contractor shall not commence pile pulling adjacent to 177/181 Fremont without first receiving direction to do so from TJPA.

T-0147	**301 Mission Wall - Stone Application Detail**	**Closed**	**05/19/2011**	**05/29/2011**	**05/27/2011**	**Potentially**	☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached Sketch

Please review the attached sketch showing the thinset manufacturer's recommendations for the tile installation at this wall. In reference to the approved submittal detail (attached) an additional layer of cement board will be installed to fur out the substrate so that the materials can be applied to their recommended thickness. In addition, the manufacturer recommends to use Laticrete 254 Platinum thinset material. The stone tiles finished surface will align with the aluminum panel above. Please expedite the review of this RFI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

2nd layer of cement board is not as specified in contract documents.

An adhesive shall be used between the layers of cement board in order to ensure the 2 layers act as a single composite layer. 2nd layer of cement board shall be attached to studs at 6" o.c. with stainless steel flat head screws to metal stud framing. All screws shall extend through both layers of cement board for full engagement to framing. There shall be no gaps or voids between the two layers of cement board.

Use of Laticrete 254 Platinum thinset material is acceptable.

T-0148	BSE - Additional Timber Piles Adjacent 199 Fremont Building Zone 4	Closed	05/23/2011	06/02/2011	05/24/2011	Potentially ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0146.2

Based on the joint meeting between W/O, BBII and the TJPA on 5/23/2011, BBII would like to confirm the following:

199 Fremont Street Pile Extraction:
1. BBII will install additional survey control to establish the back of the shoring wall limit.
2. BBII will contact DND Construction to confirm the allowable distance between an existing pile and the back of the shoring wall.
3. BBII will excavate, in the presence of the engineer, 8 piles at one time.
4. BBII and the Engineer will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.
5. BBII will extract the piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Brian Dykes, this work is authorized to proceed. 199 Fremont has been notified and work may commence.

5/24/2011 - George Metzger
ARUP Response:

The procedure described is consistent with that discussed and agreed to at yesterday's meeting with the following exceptions:

Item 4 shall read: "BBI and TJPA will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall." Arup will be on site to assist the TJPA.

Items 8 and 9 will be reviewed by others.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

6. BBII will backfill the void with low strength material Central Concrete Mix FOA100CX (RFI #T-0138.1).
7. BBII will backfill the piles and start over with Step 3.
8. All of this work will be tracked and compensated on force account under CR T-010.
9. Similar to the extraction in front of the 301 Mission garage wall, BBII will take every precaution to avoid damaging the adjacent wall; however, due to the proximity of the hammer to the wall, BBII will not guarantee not damaging the wall. If damage to the adjacent wall occurs in any phase of the pile extraction operation described above, BBII will be compensated for repairs under CR T-010 as well.

Please confirm the above as soon as possible. In addition, BBII requests immediate confirmation of allowable work hours for the work described above.

T-0148.1 **BSE - Additional Timber Piles Adjacent 199 Fremont Building Zone 4** **Closed** **05/23/2011** **06/02/2011** **06/07/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0148

The response RFI T-0148 did not answer for Item 8 and 9. Please respond for Item 8 and Item 9.

RFI#T-0148 Questioin:
Reference RFI#T-0146.2

Based on the joint meeting between W/O, BBII and the TJPA on 5/23/2011, BBII would like to confirm the following:

199 Fremont Street Pile Extraction:
1. BBII will install additional survey control to establish the back of the shoring wall limit.
2. BBII will contact DND Construction to confirm the allowable distance between an existing pile and the back of the shoring wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed-In regards to item #8 and 9 in the response to RFI T-0148; All of this work will be tracked on force account under CR T-010. If BBII takes every precaution to avoid damaging the adjacent wall, BBII will be compensated for repairs under CR T-010 as well.

There is no Noise moratorium for 199 Fremont. This includes demolition, pile pulling, excavation, backfill, equipment set-up etc. is allowed at all times adjacent to 199.

Good neighbor notification policy is in effect - WO/BBIi will notify Singer Assoc. whenever work will encroach on 199 Fremont property or when work activity will disrupt the tenants of 199 Fremont - both inside lot and on sidewalk/street.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3. BBII will excavate, in the presence of the engineer, 8 piles at one time.
4. BBII and the Engineer will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.
5. BBII will extract the piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.
6. BBII will backfill the void with low strength material Central Concrete Mix FOA100CX (RFI #T-0138.1).
7. BBII will backfill the piles and start over with Step 3.
8. All of this work will be tracked and compensated on force account under CR T-010.
9. Similar to the extraction in front of the 301 Mission garage wall, BBII will take every precaution to avoid damaging the adjacent wall; however, due to the proximity of the hammer to the wall, BBII will not guarantee not damaging the wall. If damage to the adjacent wall occurs in any phase of the pile extraction operation described above, BBII will be compensated for repairs under CR T-010 as well.

Please confirm the above as soon as possible. In addition, BBII requests immediate confirmation of allowable work hours for the work described above.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0149	**BSE - Revised Contract Drawing GT-2201**	**Closed**	**05/24/2011**	**06/03/2011**	**05/26/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201, RFI#T-0088.2, and attached sketch SKGT-0002

BBII agreed with the TJPA's proposal in the response of RFI T-0088.2. Therefore, please issue the revised contract drawing of GT-2201.
Also, please note that attached Sketch SKGT-0002 includes an error in the CDSM wall alignment at gridline J/34-35.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on the 5/26/2011 meeting between TJPA, PMPC, Turner and AAI, and as directed by TJPA a revised contract drawing of GT-2201 will not be issued at this time. However, the attached sketch has been revised to correctly show the CDSM shoring wall outline. See attached SKGT-0002-R1.

T-0150	**BSE - CDSM Top of Pile Elevations At Zone 4**	**Closed**	**05/25/2011**	**06/04/2011**	**05/31/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5101 and attached sketch

Please reference table 16/GT-5101. To facilitate construction on the streets and the Buttress area, at no additional cost to the owner BBII plans to install the CDSM piles on Fremont St., Beale St., and Zone 4 per the table below:

- (a) Location / Description; (b) Per 16/GT-5101 Top of Pile Elevation; (c) Proposed Top of Pile Elevation

1 - (a) Piles at Fremont St. and Beale St.; (b) EL 13.0 and EL 15.0; (c) Flush to street elevation
2 - (a) Piles in the Buttress Work Pad area along 301 Mission; (b) EL 14.0; (c) Approx. EL 14.0 w/c flush to Top of Pad
3 - (a) Along 301 Mission, piles between the Buttress Work Pad and Beale St.; (b) EL 13.0; (c) Approx. EL 15.0 w/c is 1' above grade
4 - (a) Piles along the 181 Fremont side of Zone 4; (b) EL 14.0; (c) Approx. EL 15.0 w/c is 1' above grade

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The proposed top of pile elevations are acceptable provided the elevation at the bottom of the pile is not less than that shown in 16/GT-5101.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0151	BSE - Buttress Footprint Increase Due to Oversized Casing	Closed	05/26/2011	06/05/2011	05/31/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Adamson Associates, Inc — George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference attached sketch

Becho will be utilizing a 2200mm OD temporary casing for the Buttress Pile Installation. Becho requests that the spacing between tangent piles remain at 4" minimum and the secant piles overlap remain 1'-6". This will approximately increase the Buttress footprint by approximately 4'-4" to the east and 1'-9" to the south.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable provided no portion of the overall buttress shifts north-south. In particular, the Contractor shall verify that row R, once shifted east as proposed, can be installed in the same northsouth location, given the corner projection of the 301 Mission low-rise. Contractor to verify that the existing timber piles within the larger footprint have been removed and that the equipment pad is enlarged as necessary.

T-0152	BSE - Additional Timber Piles Adjacent 199 Fremont Building	Closed	05/26/2011	06/05/2011	06/07/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference Sheet GT-2103 and RFI#T-0148

In regards to item #4 in the response to RFI T-0148; field investigations of the curvature in first few piles removed along 199 Freemont, BBII feels that at a minimum it is necessary to remove all piles that's top is within 12" of the "neat line" 36" wide CDSM wall.

Please confirm that removal of these piles to the limits described above, in addition to any associated damage to adjacent structures caused by the extraction will be reimbursed under CR T-010.

Item 4:
4. BBII and TJPA will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed-In regards to item #4 in the response to RFI T-0148; All of this work will be tracked on force account under CR T-010. If BBII takes every precaution to avoid damaging the adjacent wall, BBII will be compensated for repairs under CR T-010 as well.

T-0153	BSE - Additional Timber Piles Adjacent 177/181 Fremont Building	Closed	05/26/2011	06/05/2011	06/07/2011	Potentially	☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Sheet GT-2103 and RFI#T-0146.2

In regards to item #4 in the response to RFI T-0146.2; field investigations of the curvature in first few piles removed along 199 Fremont, BBII feels that at a minimum it is necessary to remove all piles that's top is within 12" of the "neat line" 36" wide CDSM wall.

Please confirm that removal of these piles to the limits described above, in addition to any associated damage to adjacent structures caused by the extraction will be reimbursed under CR T-010.

Also, please confirm allowable work hours, since 199 extractions have already begun.

Item 4:
4. BBII and TJPA will jointly determine the piles that can be left in place with reasonable assurance that they will not impact the shoring wall.

Confirmed-In regards to item #4 in the response to RFI T-0146.2; All of this work will be tracked on force account under CR T-010. If BBII takes every precaution to avoid damaging the adjacent wall, BBII will be compensated for repairs under CR T-010 as well.

Noise moratorium for 177/181 Fremont is Monday-Friday from 11 am to 2 PM. This includes demolition and pile pulling adjacent to 177/181 only - Excavation, backfill and equipment set-up is allowed at all times adjacent to 177/181.

T-0154 **BSE - Becho Tremie Placement Process** **Closed** **05/26/2011** **05/26/2011** **05/31/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 63 29, 3.5.G.4.K

SS31.63.29.3.5.G.4.k states "The tremie discharge end shall be immersed at least 25' in concrete at all times after starting the flow of concrete."

Becho requests concrete tremie embedment to be reduced to 10ft minimum for all piles and 5ft minimum tremie embedment at the secondary pile transition zones between structural and CLSM mix pushing the minimum contaminated structural/CLSM concrete zone at sub grade to +5 foot above sub grade elevation.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable. Note that the procedure described pertains to both the primary and the secondary piles, not just the secondary piles as described in the RFI.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0155	BSE - Primary Concrete Mix Tolerance	Closed	05/31/2011	06/10/2011	06/03/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01, 1.5.F

BBII, Becho, Central Concrete, W/O, ARUP and Adamson Associates met on Tuesday 5/24/2011 to discuss the results of Buttress Primary Concrete Mix Trial Batches. During this meeting, Central Concrete expressed concern about variability in the Buttress Primary Concrete mix due to slight variations in material and batching. The Buttress Primary Concrete Mix is a very high performance mix and even small variations in the mix constituents can result in significant changes in strength. Please advise how much of a working tolerance is acceptable for the primary buttress concrete mix.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The strength of concrete which has been placed in the primary shafts will be considered satisfactory if both of the following requirements are met:

1. Every arithmetic average of any three consecutive strength tests (each test consisting of at least two 6 by 12 in. cylinders or at least three 4 by 8 in. cylinders made from the same sample of concrete) equals or exceeds 2,000 psi.

2. No individual strength test (average of two 6 by 12 in. cylinders or at least three 4 by 8 in. cylinders) falls below 1,800 psi.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0156	BSE - Primary Concrete Mix 90-Day Compressive Strength	Closed	05/31/2011	06/10/2011	06/03/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01, 1.5.F

Per Specification Section 03 30 01 - 1.5F Trial Batches: "The mixes shall be proportioned to develop a compressive strength of 2,000 psi at 28 days." Per the response to Question TG0300-0262, "The rate of strength gain can be reduced so that the design strength is reached after 28 days but less than 91 days".

Please confirm that the Buttress Primary Shaft Concrete may take up to 90 days to achieve 2,000 psi.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The rate of strength gain can be reduced so that the design strength is reached after 28 days but ess than 91 days, provided the Contractor submits test data demonstrating that the mix will reach 2,000 psi at or before 90 days. At a minimum, compressive strength tests of the mix shall be taken at 7, 14, 28, 56 and 90 days. Each test shall consist of a minimum three cast cylinders and a minimum three cores taken from trial batch cubes placed in accordance with submittal TG0300-385.

At shafts C/2, C/4 and C/6 (refer to GT-2201), the mixes shall be proportioned to develop a compressive strength of 2,000 psi at 28 days.

Contractor to submit proposed mixes and corresponding test results for approval prior to their use.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0156.1	**BSE - 120 Day Acceptability of Buttress Primary Shaft Concrete**	**Closed**	**04/16/2012**	**04/26/2012**	**04/19/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: 4/12/12 Central Letter

BBII requests that in the event that the Buttress Primary Mix test specimens do not meet the 2,000 psi specified strength of 2,000 psi at 90 days (reference Response to previous RFIs #T-0157.2, and #T-0156), additional cylinders are to be taken and tested at 120 days. During this cooler climate, initial temperature may be impeding overall strength at the required time. Although only a few specimens are suspect of low strengths, Central Concrete is confident that at 120 days, the specimens in question will reach ·the required strength. If this criteria can be accepted for all test specimens at 120 days, this can mitigate any future concerns of suspect low strength.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable for shaft N-2. For future shafts, we will evaluate on a case by case basis. However, this will require the TJPA to take an additional cylinder at the sampling frequency required in the specfications so that, if the first cylinder tested at 90 days is less than 2,000 psi, there can be three samples tested at 120 days.

Christina Young : Per Turner, the additional cylinder sampling is to be performed by the Contractor's own testing agency.

T-0157	**BSE - Primary Concrete Mix 500 PSI At 7-Days**	**Closed**	**05/31/2011**	**06/10/2011**	**06/03/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01, 2.2.E

BBII, Becho, Central Concrete, W/O, ARUP and Adamson Associates met on Tuesday 5/24/2011 to discuss the results of Buttress Primary Concrete Mix Trial Batches. One of the concerns for the Buttress Primary Concrete is to provide a mix that is able to consistently achieve both 500 psi at 7 days and 2,000 psi at 28 days. The Buttress Primary Concrete Mix is a very high performance mix and even small variations in the mix constituents can result in significant changes in strength. Please advise if it acceptable to allow a working tolerance for the 500 psi requirement at 7 days.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The 7 day compressive strength of primary shaft concrete (Type "A" concrete in spec section 03 30 01) shall be 500 psi +/- 200 psi.

T-0157.1	**BSE - PSI Schedule for Buttress Shaft Primary Mix**	**Closed**	**01/13/2012**	**01/23/2012**	**01/18/2012**	**Potentially**	☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor/Obayashi Joint Venture Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

To date there are multiple RFI responses that address the scheduled PSI requirements for the primary shaft mix which is resulting in confusion and unnecessary Vela issues. For clarification sake please confirm the following schedule is correct:
1. 300 psi at 7 days pursuant to RFI response T-0157.
2. 2000 psi based on an arithmetic average of tests on or before 90 days pursuant to RFI response T-0155 and T-0156.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI is void and answered in RFI T-0157.2

T-0157.2 **BSE - PSI Schedule for Buttress Shaft Primary Mix** **Closed** **01/18/2012** **01/28/2012** **01/18/2012** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

To date there are multiple RFI responses that address the scheduled PSI requirements for the primary shaft mix which is resulting in confusion and unnecessary Vela issues. For clarification sake please confirm the following schedule is correct:
1. 300 psi at 7 days pursuant to RFI response T-0157.
2. 2000 psi based on an arithmetic average of tests on or before 90 days pursuant to RFI response T-0155 and T-0156.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The cylinder test results will be tracked in Vela as follows:

7 day report: below 300psi: Failure. Add an issue in Vela

28 day report:

below 300 psi: Failure. Keep the issue in Vela open
below 2,000 psi: below specification but within RFI T-0156 guidelines; monitor; if the 7 day break for the same report was less than 300 psi, then the Vela issue stays open; if the 7 day break for the same report was greater than 300 psi, no Vela issue

90 day report:

below 2,000 psi: Failure. Add an issue in Vela

above 3,000 psi: Failure. Add an issue in Vela

Regarding the question of averaging, see response to RFI 155.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0157.3	**BSE - PSI Schedule for Buttress Shaft Primary Mix**	**Closed**	**01/19/2012**	**01/29/2012**	**01/23/2012**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

To date there are multiple RFI responses that address the scheduled PSI requirements for the primary shaft mix which
is resulting in confusion and unnecessary Vela issues. For clarification sake please confirm the following schedule is correct:

1. 300 psi at 7 days pursuant to RFI response T-0157.

2. 2000 psi based on an arithmetic average of tests on or before 90 days pursuant to RFI response T-0155 and T-0156.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The cylinder test results will be tracked in Vela as follows:
Below 300 psi at 7 days: fail
Above 300 psi at 7 days: pass
Below 2,000 psi at 90 days: fail
Above 2,000 psi at 90 days: pass
Above 3000 @ 28 days does not conform with the specifications, but this will not be tracked in Vela.
Regarding the question of averaging, see response to RFI 155

T-0158	**301 Mission Wall - Architect of Record**	**Closed**	**06/01/2011**	**06/11/2011**	**06/06/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** URS Corporation David Fyfe **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Please clarify who is the registered Architect of Record, for the 301 Mission Interim Screen Wall Project.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

URS is the Architect/Engineer of Record per signature and seal affixed to the drawings.

T-0159	**BSE - Unforeseen Obstruction - Timber Piles Within Pre-Trench Limits Zone 3**	**Closed**	**06/02/2011**	**06/12/2011**	**06/06/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2212, Specification Section 02 41 01, attached sketch and photo

During Pre-trench, BBII found additional unforeseen timber piles within the pre-trench limits along gridline A, between gridlines 24 & 25.
Per Contract Drawing D-2212 (attached), there should only be a single row of timber piles in conflict with the CDSM wall, although when the area was exposed there are three rows within the CDSM wall limits (see attached photo). These will have to be removed and will be considered extra work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

06/06/2011 - Daphne Faulkner

Response provided by S. Rule of Turner.

Please refer to note on Drawing D-2212 in the upper half between grids 23~26 which states,

"In areas where (N)CDSM wall conflicts with the existing pile caps and piles, remove (E) pile caps and/or piles prior to construction of (N) Transit Center Building CDSM perimeter shoring wall (see Note 3 and 6)."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please advise.

This includes all piles within the CDSM wall footprint.

"Unforeseen Conditions" are covered in Section 00 07 00 (General Conditions) Article 3.05.A.2 and 3.05.A.3 (Unforeseen or Changed Conditions).

Article 3.05.C states,

C. Differing Site Conditions shall not include:

1. All that is indicated in or reasonably interpreted from the Contract Documents or Reference Documents;

2. All that could be seen on Site

3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.

Since Section 31 56 13 discusses both pre-trenching and the removal of timber piles and Bid Item #6 is for the removal of timber piles before the CDSM shoring wall is installed TJPA believes that this work was indicated and will provid payment for it under Bid Item #2, #4, #6, and #7.

There will be no additional payment for the removal of timber piles for the CDSM wall.

T-0159.1 **BSE - Unforeseen Obstruction - Timber Piles Within Pre-Trench Limits Zone 3** **Closed** **06/08/2011** **06/18/2011** **06/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0159, Sheet D-2212, Specification Section 02 41 19, and attached photos

The Response to RFI#T-0159, appears to have misunderstood the question. Therefore BBII is providing additional information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The response to RFI T-0159 applies. The contractor shall remove all piles encountered during pre-trench activities.

Per note 7 on D-2212, it was made clear at the time of bid that the actual existing conditions may differ from

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII contends that the lower and smaller diameter piles as indicated in the attached sketch were not shown in either the contract drawings or the reference documents, therefore BBII was un-able to account for the removal of these piles in their bid item prices. These piles meet the general conditions article 3.05A.2 definition of an unforeseen condition, because that quantity of piles encountered exceeds that shown in the bid docs.

Please confirm the removal of the "unforeseen" timber piles in excess of those shown in the drawings, will be tracked and paid under a Force account contract change order similarly as done for Zone 4 pre-trench obstructions.

the information shown on the drawings.

Note 7 on D-2212 states, "Location and depth/thickness of (E) basement slabs, walls and pile caps and location and depth/grouping of (E) piles shown on drawings based on best available information and may vary. [...] These quantities may not represent the actual extents of the entire building and/or ramp structure foundation elements (piles/footings)."

T-0160 **BSE - Timber Piles Not Extracted In Zone 4** **Closed** **06/03/2011** **06/13/2011** **06/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference CR T-010 and attached summary and sketch

BBII continues to remove unforeseen timber piles along 199 Fremont Street in Zone 4 and soon will commence extraction along 181 Fremont Street.

As of May 31, 2011, BBII has left 7 piles in place as they were estimated to be more than 12" away from the limits of the CDSM shoring wall. In addition, 5 piles were broken during extraction a portion of which were left in place due to their proximity to the adjacent building walls. While these piles also appear to be more than 12" outside the limits of the CDSM shoring wall, due to possible undulations and alignment changes underground, the possibility of these piles encroaching into the CDSM shoring wall area exist.

These piles are not shown on the contract plans and are extracted with extreme caution under the TJPA's direction and prescribed methods, taking the integrity of the adjacent buildings in consideration. Please confirm that it is the TJPA's intention to leave these piles in place.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor is to remove the wood piles adjacent to 199 and 181 Fremont using alternate means and methods. Wood pile can remain along this line if it will not interfere with installation of CDSM wall.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0161	**BSE - CDSM Wall Soldier Pile Installation**	**Closed**	**06/03/2011**	**06/13/2011**	**06/06/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
To: Turner Construction Compan Daphne Faulkner
Answered By: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13, 3.13 and attached detail sketch

Is it acceptable to cut a 1.5" diameter hole, 16" from the bottom tip, in the web of the soldier beam pile beams? The purpose of the hole is to aid in securing the tail of the beam to the "dolly" that DND will use to raise the beams into a vertical position.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

06/03/2011 - George Metzger

ARUP Response:

This is acceptable.

T-0162	**BSE - Buttress Concrete Test Cylinders**	**Closed**	**06/03/2011**	**06/13/2011**	**06/08/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01 and attached summary of test results

BBII, Becho, Central Concrete, W/O, ARUP and Adamson Associates met on Tuesday 5/24/2011 to discuss the results of Buttress Primary Concrete Mix Trial Batches (please refer to the attachment for a summary of the test results). The 28-day test results for the 4x8 test cylinders were on average 57% of the core 4" diameter core test results. The 28-day test results for the 6x12 test cylinders were on average 88% of the 4" diameter core test results. The test samples were extracted from the same concrete batches, at the same time and cured in the same manner. BBII believes the difference in compressive strength between the test results may be attributed to the sample size & the resultant heat of hydration which drives the concrete cure rate. BBII also believes that the concrete cores may be more indicative of the actual in-situ concrete strength than the concrete test cylinders.

The Specification Section 03 30 01 - 1.5 F Trial Batches references "concrete cylinders", however it does not specify 4x8 or 6x12 test cylinders.

During the course of the meeting, it was generally agreed upon that 6x12 test cylinders appeared to be a more representative and consistent measure of the Primary Buttress Concrete strength relative to the core samples.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup believes that there is insufficient information available at this time for the Contractor to draw the conclusions stated in the RFI.

Regarding the question posed in the RFI: Arup's understanding is that there should be little difference between 4x8 and 6x12 cylinders cast, cured and tested under identical conditions and, therefore, it is not essential to limit the TJPA's Testing Agency to one particular cylinder size.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII has confirmed through CTS that there should be no additional cost in sampling and testing a 4x8 cylinder relative to a 6x12 cylinder.

Therefore, BBII proposes that the 6x12 test cylinders should be used as the basis of acceptance testing both for the Trial Batches and also for future Field Quality Control and Testing for the Primary Buttress Concrete; 4x8 test cylinders should only be used for informational purposes only. Please confirm.

T-0163 **BSE - Hazardous Material Removed From Site Zone 2** **Closed** **06/03/2011** **06/13/2011** **06/06/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 00 03 35, 1.2

During Investigation of Zone 2, BBII discovered potential lead based material existing on site. The specific area of concern is the pedestals on First Street.

Please confirm that all contaminated material (specifically the referenced pedestals) as specified in the specification section 00 03 35 Article 1.2 has been removed and abated by the Demolition Contractor.

BBII is scheduled to remove these pedestals next week and cannot proceed with this critical work until it is confirmed that the site is cleared of lead based materials as required by the Specifications.

The TJPA's attention is directed to the following Section of the Specifications:

SECTION 00 03 35 - EXISTING CONDITIONS:
HAZARDOUS MATERIALS

"1.2 HAZARDOUS MATERIALS REPORTS
A. The TJPA's environmental consultants have surveyed the facility for the presence of various hazardous

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

06/06/2011 - Kevin Chiu
Hazardous material has been removed from site per the extent of demolition contract drawings for zone 2 - this does not include the "pedestals" in Zone 2. The building and above ground structures were demolished to the extent shown on Demolition contract drawings. Hazardous materials abatement scope was completed within the scope of demolition only. Refer to Demolition Drawings D-1050, D-1051 and D-1073 for representation of limits of structures (specifically the referenced pedestals) demolished and hazardous material abatement.

BSE Contractor to handle remaining demolition and abatement in accord with BSE Spec 00-08-14 Health and Safety Criteria Para 1.2 and 1.3 Lead hazards, BSE Spec. 02-41-01 "Demolition" and BSE Spec. 01-13-50 "Hazardous Materials Procedures."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

materials. Materials investigated may include asbestos, lead, PCB ballasts, mercury containing lamps, contaminated soils, underground storage tanks, and other hazardous materials. The demolition contractor for the Demolition project (Evans Brothers Inc.) is responsible for removing and abating products containing asbestos, lead, or PCB ballast, and mercury-containing lamps."

T-0164 **BSE - Timber Piles Adjacent 177/181 Fremont Building South Zone 4** **Closed** **06/06/2011** **06/16/2011** **06/06/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI@T-0146.1 [BBI 0104] and attached photo

Per [RFI #T-0146.1] RFI 104 Response, BBII inserted a metal sheet behind the timber piles required to be removed, in the location between 199 and 181 Fremont. The sheet is to hold back the soil in the alley. Due to the close proximity of the timber piles, the sheet location is too close to the timber piles required to be removed from the CDSM Wall Location. The sheet is too close for the pile extractor to attach to the tops of the pile. See Attached Photo.

Please Advise in detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

06/06/2011 - Roger Rothenburger

The practice of removing the sheet pile was approved by TJPA in the "181 Fremont test" done on Friday June 3rd. The Contractor can remove the metal sheet and expose the piles as necessary with as steeply a sloped excavation that allows the vibrator pile puller to be attached. The work should be done in as reasonably a short duration as possible. All equipment, manpower, materials should be at hand when the metal sheet is pulled and the piles are exposed for extraction.

T-0165 **BSE - High pH Water Found In Zone 3 Pre-Trenching** **Closed** **06/07/2011** **06/17/2011** **06/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 00 08 13, 1.9.C

BBI found high pH water while digging an exploratory hole in the Fremont St. side of Zone 3. This was confirmed by Peter Cusack from Treadwell & Rollo. Specification Section 00.08.13.1.9.C states that "Should the existing wastewater be contaminated, or should it be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pending approval by the TJPA, a CR will be issued for the chemicals to treat the water per specification section 00 08 13 (1.9.B).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

uncontaminated but subsequently become contaminated as a result of conditions other than the Contractor's operations, a Change Order will be issued..".

Please consider this as a Notice of Existing Contaminated Wastewater as defined by SS00.08.13.1.9.C. Please advise on how to proceed.

T-0166 **BSE - Unknown Concrete Structure at 199 Fremont Zone 4 (Gridline 33-30)** **Closed** **06/07/2011** **06/17/2011** **06/22/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0144 (BBI RFI 0103), Specification Section 31 56 13, and attached Turner Field Condition Report 056 and photos

BBII demolished the Unforeseen Concrete Structure along 199 Fremont St., and associated curb per RFI #103 [RFI#T-0144] response. During the process, due to the previous contractor's construction means, the curb inadvertently damaged the metal flashing, and possibly the waterproofing beside it.

Along with the curb, the fence panel was built on top of the Unforeseen Concrete Structure, so when the structure was removed, the fence came down too.

See attached pictures and Turner Field Condition Report (5/24/11)

BBII requests immediate direction from the TJPA on this issue.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Instructions for this were orally transmitted in the field and complied with by the BSE Contractor. The fence between the buildings 199 Fremont and 181 Fremont has been reinstalled. Repair of the curb and flashing can wait until work in the area is complete or at a point that no further damage is possible. The Contract requires that the BSE Contractor repair damage to any building damaged during construction activity for the site and this Contract.

T-0166.1 **BSE - Unknown Concrete Structure at 199 Fremont Zone 4 (Gridline 33-30)** **Closed** **07/20/2011** **07/30/2011** **07/26/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference RFI #T-0144, RFI #T-0166 and Specification 31 56 13

Per the response to RFI#T-0166 (BBI RFI 103.1), please provide an acceptable repair procedure for the 199 Fremont building. Also, please confirm that the repair work will be included in CR T-010.

No action is required by the contractor at this time.

The specific damage to 199 Fremont Street has not been listed in the RFI. TJPA is aware of minor damage to the metal flashing along the curb at the bottom of 199 Fremont St and the removal of the unreinforced "curb" that ran along the base of the cinder block wall. As stated previously repairs to 199 Fremont will be made at a much later date. The damage that occurred to the flashing and unreinforced concrete curb resulted from using breaker on the unreinforced foundation wall and pulling the sections out and repairs will not be done until the project is further along in progress where no more likely damage will occur.

T-0167 **Survey Grid Control Documents** **Closed** **06/08/2011** **06/10/2011** **06/20/2011** **Potentially** ☐

From: Webcor Construction LP Tim Maxwell **To:** Transbay Joint Powers Authoı Edmond Sum **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI T-0112.1 and drawing GT-0100

As requested by Ed Sum in today's (6/8/11) OAC meeting we submit the following question:

Please confirm that gridlines as established from the GT-0100 and as confirmed on Chaudhary & Associates Survey Grid Control Documents (Ref: RFI T-0112.1) can be used for all future construction elements (i.e., CDSM wall, etc). Please confirm by 6/10/11.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

For the purpose of laying out the work shown in the BSE package, the layout drawing provided by Chaudry (included in RFI T-0112.1) is acceptable.

T-0167.1 **Survey Grid Control Documents** **Closed** **07/01/2011** **07/11/2011** **07/05/2011** **Potentially** ☐

From: Webcor Construction LP Daniel Foudy **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please provide City Survey of property lines with a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

translation to grid for our use.

The City's property line survey has been provided to the Contractor and GT-0100 ties the building grid to the survey.

T-0168 **BSE - Soil Classification Data** **Closed** **06/08/2011** **06/18/2011** **06/22/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 13 50

The Class 1 and Class 2 Disposal site does not want to use the old "PSI for Caltrans" Reports in the Soil Profile, due to the lack of necessary tests, missing pages in the report, and age.

The Disposal site recommends the use of the Treadwell & Rollo reports from 2008 and 2009, and to dismiss the "PSI for Caltrans" reports.

Please Advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contract Specification Section 01 13 50 Part 1.1.C (General Summary - Soils Management) requires that the Contractor use "Site Mitigation Plan, Transbay Transit Center" by Treadwell and Rollo March 24, 2010 for "...the management of existing soils in a manner consistent with the reuirements of the Contract." This report is attached as Appendix A in Specification Section 01 13 50.

Section 01 13 50 Par 1.1.C for soils management also references a 2nd Treadwell and Rollo Report, "Environmental Site Characterization, Transbay Terminal, San Francisco California April 2009" that is referenced in Specification Section 00 03 35 (Existing Conditions Hazardous Materials Reports). This report is not a part of the Contract as stated in Section 00 03 35 is not part of the Contract except for the technical data incorporated by reference into the Contract.

A partial review of this document shows that there is nothing to require that the Contractor use "PSI for Caltrans" reports. The April 2009 Treadwell and Rollo report is basically a detailed data report which predates the March 2010 report "Site Mitigaiton plan, Transbay Transit Center".

The March 2010 Treadwell and Rollo document modified by any additional data in the 600page April 2009 Treadwell and Roll report should be used to

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

manage the soils being excavated and coordination with the Class 1 and Class 2 Disposal Sites.

T-0169 **BSE - Disposal of Drilling Spoils** **Closed** **06/09/2011** **06/19/2011** **07/07/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 13 50

BBII is concerned of the close proximity of the differently classified layers within the Buttress Area of Zone 4. The concern is during Drilling & Shaft Excavation, cross contamination of the material could potentially lead to Class 1 Material inadvertently going to a Class 2 Disposal site, or even a clean waist site. The class 1, the class 2, and the clean material layers are described below:

Surface to GL-11 ft --- Land fill (clean material except for Equipment Pad Concrete)
GL-11 ft to GL-13 ft --- Class II (based on Spec 01 13 50/APA)
GL-13 ft to GL-16 ft --- Class I (based on Spec 01 13 50/APA)
GL-16 ft to bottom ---Clean Material

BBII is concerned that due to the process of excavating the soil out of the Buttress Shaft with large amount of water and the use of a clam shell digging attachment, that the soil layers have a high opportunity of mixing within the casing. Presumably the mixed the soil layers will make it difficult to distinguish between the class 1, the class 2, and the clean materials.

BBII requests the engineer to provide a revised stratum classification that is better for the actual shaft excavation methods being used, that will prevent cross contamination.

Please Advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Conract Specification 01 13 50 Part 1.1.C (General Summary - Sil Management) requies the Contractor to use the Treadwell and Rollo March 24, 2010 "Site Mitigation Plan, Transbay Tranit Center" and April 2009 "Environmental Site Characterization, Transbay Terminal" reports for managing existing soil disposal.

Only the March 24, 2010 Treadwell and Rollo report is a Contract Document in Appendix A of Section 01 13 50 and only data from April 2009 Treadwell and Rollo Report is included as Contract information even though both reports contain much of the same language. The April 2009 report is 600 pages and the March 2010 report is considerably shorter and condensed.

Section 01 13 50 requires the Contractor to submit a material handling plan for each type of excavation operation on the site and includes the buttress piles as well as CDSM overflow materials, pre-trench excavation material, bulk excavation material, etc.

Both the April 2009 and March 2010 Treadwell and Rollo report give the expected ground condition classifications as:

5~16 feet (below grade) fill material composed of loose to medium dense silty sand with varying amounts of brick, wood, tar, and glass fragments.
15~18 feet (below grade) fill material composed of medium dense to very dense sand with variable amutns of silt
18~55 feet (below grade) Bay Mud
Under Section 01 13 50 Part 1.5.G the Contractor is

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resonsible for devleoping a plan that reduces the amount of hazardous waste generated. This plan also includes (Part 1.4.C Submittals - Excavation Handling) methods, means, equipment, sequences that segreegates the material to reduce cost of hazardous material disposal.

Since the buttress pile area was excavated to remove piles and backfilled with a combination of existing clean material (fine sand with silt) and crused concrete debris and poured concrete (top 2 feet buttress pile working pad) the Contractor needs to devise and submit the methods to handle the segregation of those materials for disposal in the appropriate Class land fills.

The Contractor will need to test materials for suitability and work out a plan with the Disposal Landfill Operators. TJPA will assist with the TJPA environmental consultant, Treadwell and Rollo but it is the Contractor's responsibility to mke the plan and handle the material. Classification of excavated materials by TJPA will not always govern how the disposal operators deal with the material. The actual conditon of the material must be determined prior to disposal.

The materials listed by elvation in the RFI are presumably the levles of CLSM, crushed concrete debris and the material below. The buttress area was excavated to a minimum of 12 feet below grade at the Fremont St. shoring wall and then another 3~5 feet was excavated to grab on to the timber piles for removal. The excavated material was replace with different materials when the engineered work pad was constructed with compacted material.

This means that the material is not necessarily class I as stated in the RFI or as designated in the Treadwell and Rollo March 2010 report. Whether the land fill operators will agree with that is the open question.

However, as stated in Section 01 13 50 it is up to the BSE Contractor to test and determine the disposal of material in accordance with the Contract.

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TJPA will assist with some testing by their outside environmental consultant Treadwell & Rollo but such testing does not erelieve the Contractor of the responsibility for the means and methods of proper disposal despite TJPA being the "generator" of the material.

T-0170 **BSE - Existing 3" minus Concrete Rubble** **Closed** **06/20/2011** **06/30/2011** **06/29/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Drawing Sheets GT-1303, D-5100, D-5101, D-5102, D-5103, response to Pre-Bid RFI #TG0300-014, and attached drawing

Contract drawings GT-1303, D-5100, D-5101, D-5102, and D-5103 along with the response to Pre-Bid RFI #TG0300-014 describe the finish grades and subsequent quantities of crushed 3" minus concrete to be left on site for the BSE package. In summary, Zone 4 was to be left with a depression as shown on GT-1303 and Zone 1-3 were to be left no higher than existing ground elevations.

Previous discussions between BBII, W/O, EBI and TJPA were made to accommodate BBII's early access into Zones 1-3 for pre-trenching. At the time of these discussions EBI indicated they were short approximately 7000 cy of balancing the site and that they would not be able to get that remaining 7000 cy until the existing ramps were demolished. As a result of the short term shortage and in exchange for access to zone 1-3 BBII agreed to:

- Allow EBI to leave Zone 3 low of the Existing elevations
- Allow EBI to set up Crusher in Zone 2 for ramp demolition
- Allow EBI to leave the 7000 cy shortage in a stockpile in Zone 2, for our later use.

BBII appreciated the partnering agreement however the current size of the stockpile is far greater than BBII ever expected. BBII surveyed the stockpile and the Zone 3

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Intent of the demolition project is to retain processed construction demolition concrete onsite for use as buttress fill material and provide a working platform for construction of new terminal perimeter wall.

Contract drawings state" Subsequent to placement of CDSM wall perimeter shoring remove all onsite crushed/processes demolition concrete backfill." REF: D-2200-2203 inclusive, and D-1001 Note 2.

The amount of crushed concrete (and asphalt) is from the demolition contract is in accord with Demolition Contractor drawings and specs. REF: Demo Spec. 02-42-00.

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depression on 6/7/11 after they completed their export to zone 4 and BBII estimates the size of the concrete stockpile to be in excess of 11,000 cy (this does not include the asphalt stockpile that was created after the survey).

Based on BBII's calculations (see attached topo) Zone 3 was left approximately 2000 cy short of existing grade and 5000 cy were taken from the stockpile to Zone 4. As a result BBII requests the current stockpile be removed in its entirety from the site, as it is in excess of the contractual amount to be removed by the BSE contract.

However, If acceptable to TJPA, BBII would be interested in taking 2000 cy of the crushed concrete if it could be delivered and stockpiled in an mutually agreeable staging area. BBII suggests Lot S. This material would then be used as need for excavation stabilization throughout the BSE contract.

T-0171 **BSE - Concrete Section Protruding Into CDSM Shoring Wall Area Zone 4** **Closed** **06/13/2011** **06/23/2011** **06/17/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photo

While excavating a pile next to 181 Fremont Street, a section of concrete that was protruding into the CDSM shoring wall area fell from the foundation wall of 181 Fremont. Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The void should be filled with 2000 psi concrete after surfaces of the opening are cleaned. In addition grouted anchorage of #3 rebar hooks at 12'' c.c around the opening in the existing concrete basement wall and mesh is required before placing repair concrete through a "bird's mouth" form for a complete filling. A sketch is attached showing the desired configuration of the repair patch.

Cost to be tracked under CRT#10.

T-0172 **LEED Submittal Requirements** **Closed** **06/13/2011** **06/23/2011** **06/21/2011** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Ref Spec Section 01 81 13 Section 1.5:

According to spec section 018113.1.5, LEED submittals shall be submitted in addition to other submittal requirements specified elsewhere. If a submitted item is identical to an item submitted to comply with other requirements, a duplicate copy is to be submitted. In effort to minimize duplicate submittals, please confirm it is acceptable to issue one submittal package to cover both the technical spec. and LEED spec section requirements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We agree with your proposal to combine the data.

T-0173 **BSE - Enhanced Trial Batch Testing** **Closed** **06/13/2011** **06/23/2011** **06/15/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Daphne Faulkner

Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Specification Section 03 30 01, 2.2.E and attached mix designs

BBII, Becho, Central Concrete, W/O, ARUP and Adamson Associates met on Tuesday 5/24/2011 to discuss the results of Buttress Primary Concrete Mix Trial Batches. Based upon the preliminary results of the 2nd Trial Batch, BBII proposes to submit the following three mixes for approval for use on the Buttress Primary Shaft Concrete:
1. Mix 1: 85AEC3B6
2. Mix 5: 86AEC3A6
3. Mix 7: 87AEC3A6

BBII believes that having additional mixes available for use as the Buttress Primary Concrete would be of great benefit to the Project. BBII proposes "enhanced testing" of these three mixes as well as three additional hybrids of each mix for a total of nine mixes (please see attached for mix designs). The intent of the enhanced testing is to further refine the information we currently have on all three of the above three mixes, as well develop additional mixes for future use as Primary Shaft Concrete.

One of the concerns of 1st and 2nd Trial Batches was potentially accelerated curing due to the Styrofoam

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable.

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insulated boxes in which the trail batch "cubes" were cast. BBII proposes a 3rd trial batch using all of the same methodology of the approved trial batch method placing, the only exception being that the concrete will be cast into +/- 5'x5'x4' deep excavations in lieu of the Styrofoam insulated forms. Each mix would be placed in an individual excavation, lined with plastic to retain moisture. All other aspects of the proposed trial batch methodology would be as previously submitted & approved.

The results of the "enhanced testing" would be evaluated and possibly submitted for approval as additional Buttress Primary Shaft Concrete Mixes.

Please confirm that this is acceptable.

T-0174 **301 Mission Wall - New Curb Detail** **Closed** **06/14/2011** **06/24/2011** **06/20/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference: Attached sheet C-5000

The required curb details are not clearly defined. Is new curb set atop finish pavers, onto topping slab, or set all the way down to structural slab. Additionally, provide all applicable rebar details to match condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

New concrete curb shall be placed on top of topping slab and shall extend 9 inches above top of pavers. See attached detail for reinforcement. Concrete mix used for new concrete curbs shall be according to RFI T-0176.

T-0175 **301 Mission Wall - Concrete Mix for Curb Around Existing Manhole Covers** **Closed** **06/15/2011** **06/25/2011** **06/20/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference drawing C-2000

The existing curb around the manholes at the east and west ends of the 301 Mission Wall is unknown. Design documents do not provide information as to the specs of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

New concrete finish shall match existing concrete finish. Contractor shall provide concrete mix designs for curb(s) and walkway(s) based on specification as follows;

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this concrete mixture. The existing concrete appears to have a color added to the mix design. Please provide a mix design and color specification (if necessary) to use at these locations.

Concrete Mix, Design and Testing: Design the mix to produce standard weight concrete consisting of Portland cement, aggregate, air-entraining admixture and water to produce the following properties:

Compressive Strength: except as noted below, four thousand five hundred (4500) psi, minimum at twenty-eight (28) days, with a water cement ratio not to exceed 0.45 by weight.
Slump Range: Two (2) inches to Four (4) inches.
Air Content: Five (5) to seven (7) percent.
Mixed shall be design to provide concrete with the following properties:

Location	Maximum Size of Aggregate	Min. 28 Day Strength (psi)	Min Sacks of Cement/cu. Yd.
Concrete Curb	¾"	3000	6
Concrete Walkways	¾"	2500	5-1/2

Integral Color: Sidewalk shall be constructed of a dark grey, Hi-Con at 5 lbs. per cubic yard carbon black based concrete finish, with 25 to 30 lbs per 100 square feet of silicon carbide sparkle grains.

Contractor shall submit mix design (including integral color) for review and acceptance by the TJPA Representative prior to placing concrete.

Contractor shall provide sample of new concrete to ensure that it matches with existing concrete prior to placing new concrete.

T-0176	**301 Mission Wall - Fill Pour Back and New Curbs**	**Closed**	**06/15/2011**	**06/25/2011**	**06/20/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Should the concrete mix design for the fill pour back and 9"x12" curbs along the north side of the 301 Mission wall be the same mix that is used for the new curb around the manhole? The mix design for curbs around the existing manhole was requested in RFI T-0175. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Concrete mix design for new concrete curbs shall be as specified in RFI T-0175.

Finished concrete curbs shall match existing concrete curb finish.

Contractor to submit concrete mix design to TJPA Representative for review and acceptance prior to placing concrete.

T-0177	BSE - Alternate Method Of Pile Removal Along 181 Fremont	Closed	06/15/2011	06/25/2011	06/16/2011	Potentially ☐

From: Webcor Construction LP — Nhi Tran
To: Turner Construction Compan — Daphne Faulkner
Answered By: Turner Construction Comp — Jack Adams
Co-Author: Balfour Beatty Infrastructure, Inc. — Ural Yal

REQUEST:

Reference attached procedure, photos, and sketch

During the extraction of unforeseen piles along 181 Fremont, two piles located inside the proposed CDSM wall broke and are now too deep to extract under using the current extraction method. During the attempted extraction of pile 151, the pile continued to break. The top of this pile is approximately 9' below the base of the foundation wall. Considering the length of the adjacent removed piles, there is approximately 6' left to be removed. Pile 105 is approximately 6' below the base of the foundation wall leaving approximately 12'-14' to be removed. Further excavation to expose these piles is not reasonable. BBII proposes to drill the remainder of each pile out. See below the proposed procedure as per committee meeting and consultation with Viking Drillers Inc. on 6-15-11. It was agreed that this work will be charged to CR T-010. Also attached are photos and a drawing indicating the location of both broken piles (105 and 151).

Please provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed - Method of pile removal is acceptable. CR T-010 is used to document work.

T-0178	BSE - Connector Wall Layout	Closed	06/16/2011	06/26/2011	06/21/2011	Potentially ☐

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From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0151 and Sheets GT-2103 and GT-2201

Per the Engineer's response to RFI#T-0151, it is acceptable to expand the overall Buttress 4'-4" to the east. Please advise if the CDSM connector columns can still be installed per contract drawings GT-2103 and GT-2201.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is not acceptable. If the Contractor wishes to increase the spacing of the drilled shafts, then the connector columns will need to shift and / or be supplemented with additional columns to provide CDSM material for the full width of the buttress.

T-0179 **301 Mission Wall - Detail at Steel Baseplates on South Side** **Closed** **06/21/2011** **07/01/2011** **07/11/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

"Reference drawing D/A-6000 and attached sketch

Detail D/A-6000 does not provide a plywood panel termination detail at the steel baseplate locations along the south side of the 301 Mission wall. At the locations of the steel baseplates, use of sealant and backer rod would leave the steel baseplate exposed (see attached sketch). Please advise."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is noted that the contractor has already installed flashing to protect steel base plate prior to this RFI response. Although installation of flashing is not specified in contract documents this means of protecting the steel base plate is acceptable.

T-0180 **BSE - CDSM Wall Tolerance** **Closed** **06/22/2011** **07/02/2011** **06/22/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13

As requested by the TJPA, DND submits this request to modify the horizontal tolerance for the CDSM shoring wall. The new goal is to set the wall 2" outside of the original planned centerline of shoring wall. This solution has been proposed by the TJPA in order to not encroach into the structure at the bottom of the train box.

DND respectfully requests the maximum soldier pile & CDSM wall tolerances be revised to 0 inches into the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA did not request this RFI. TJPA stated that if the Contractor was concerned about meeting the tolerances for top horizontal position of the CDSM shoring wall that the Contractor should submit an RFI and TJPA would support such a request in order to avoid any encroachment of the CDSM shoring wall with the Transit Box concrete structure which would be difficult to remediate.

TJPA has no objection in the horizontal setting of the CDSM shoring wall if the horizontal tolerance is 0"

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trainbox & up to 5 inches outside the trainbox.

There will be no additional excavation and/or bracing costs associated with this increase in tolerance from BBI. However; there may be future additional cost impacts to the Structural Concrete & Waterproofing that are to be handled in future trade packages.

Please confirm, if this is acceptable.

towards the TTC box structure and 4" away from the box structure. The verticality tolerances of 1/150 (CDSM wall) and 1/200 (steel beam) remain in place.

The 4" top horizontal tolerance away from the wall will allow at 1/150 in 55 feet a near 0" clearance at the invert level with the CDSM wall and will allow at 1/200 the steel beam to be clear of the structural outline by 0.70".

It is understood that there is no cost or time associated with this change for the BSE Contractor work and that TJPA accepts the additional overbreak concrete generated by this small adjustment in the top horizontal placement in exchange for a better chance of avoiding structural encroachment issues at the final invert level.

It is also understood that the use of the increased top horizontal tolerance is contingent on actual field physical property line clearances for the CDSM shoring wall.

T-0180.1 **BSE - CDSM Wall Tolerance** **Closed** **06/24/2011** **07/04/2011** **07/07/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Response to RFI#T-0180

Please delete the first sentence "TJPA did not request this RFI" of the response for RFI T-0180, because it is the wrong statement.
Emilio Cruz, PMPC, requested to submit this RFI at the Schedule Review Meeting on 6/14/2011 at W-O JV Office Conference Room, 183 Fremont St.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It depends on how "request" is defined. TJPA did "request" the RFI for expanded tolerances but only if the CDSM shoring wall subcontractor felt that they needed more tolerances and wished to have TJPA confirm that it would accept a larger set back (4") than allowed in the Specifications (2"). This is the same undertanding held my Emillio Cruz.

TJPA has allowed a 4" set back while maintaining the verticality specifications for the steel soldier piles (1/200) and the CDSM (1/150). The CDSM shoring wall subcontractor has initially selected a 2" setback for placing the steel soldier beams. At 1/200 for a depth of 55ft there could be as much as 1.3" of

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encroachment (1/200x55x12 - 2" = 1.33").

At the very least it would seem that a 3" setback would minimize further the posibility for encroachment since the 1/200 is still a difficult specification to achieve as TJPA understands it from the CDSM subcontractor.

Since encroachment can be very problematic with the concrete structural wall TJPA supports the larger setback to avoid difficult encroachment problems while maintaining the specifications on verticality. The issue of who requested what and when is immaterial. TJPA has accepted the potential for additional concrete from allowing a larger setback and the BSE Contractor has accepted any impact to the bracing system from a larger impact.

T-0181 **BSE - CDSM Pile Tolerance Measurement Location** **Closed** **06/22/2011** **07/02/2011** **07/01/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13

BBII's subcontractor DND would like to confirm the exact location of the soldier pile, where the pile tolerance is to be measured. Please find below DND's question:

"It is our understanding that the tolerance of the soldier pile beams is to be measured at the plan top of pile elevation. Is this correct?"

Please confirm that DND's interpretation of the pile tolerance measurement is correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

We confirm that the tolerance refers specifically to the location of the CDSM wall and soldier pile centerlines.

Section 31 56 13 3.3 A. states: "The location of the CDSM wall centerline relative to that shown on the Drawings is 0" toward the excavation and 2" away from the excavation." This refers to the location at the ground surface ("original grade") at the start of drilling.

Section 31 56 13 3.13 B. 8. states: "Acceptable construction tolerance for the location of the soldier pile centerline relative to that shown on the Drawings is 0" toward the excavation and 3" maximum away from the excavation." This refers to the location at ground surface ("original grade") at the start of pile installation.

Please also refer to 31 56 13 3.4 A and 31 56 13 3.13

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B 2 which stipulates respectively the vertical alignment of the CDSM wall and soldier piles.

T-0181.1 **BSE - CDSM Tolerances** **Closed** **07/21/2011** **07/31/2011** **07/26/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFIs #T-180, #T-0180.1, #T-0181 and Specification Section 31 56 13

Previous RFIs T-180, T-180.1, and T-181 have all addressed CDSM shoring wall tolerances. Below is BBII's interpretation of the responses:

1. Horizontal Tolerance:
a) CDSM Columns: 0" in towards the train box, 2" maximum away from the train box - measured relative to the "plan" CDSM shoring wall centerline located at the ground surface (original grade) at the start of drilling (W/O comment - Reference Specification Section 31 56 13, 3.3.A)

b) Steel Soldier Pile: 0" in towards the train box, 4" maximum away from the trainbox - measured relative to the "plan" CDSM shoring wall centerline located at the ground surface (original grade) at the start of drilling (W/O comment - Reference Specification Section 31 56 13, 3.13.B.8)

2. Vertical Tolerance:
a) CDSM Columns: Inclination deviation no more than 1:150 (horizontal to vertical)
(W/O comment - Same as stated in Specification Section 31 56 13, 3.4.A)

b) Steel Soldier Pile: Inclination no more than 1:200 (horizontal to vertical)
(W/O comment - Same as stated in Specification Section 31 56 13, 3.13.B.9)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Using the numbering in the RFI:

1 a. 0" in towards the train box, 4" maximum away from the train box is acceptable everywhere along the alignment except at wall segments A/26-30 and A/30-33.5. 0" in towards the train box, 2" maximum away from the train box is acceptable at wall segments A/26-30 and A/30-33.5.

1 b. 0" in towards the train box, 4" maximum away from the trainbox is acceptable everywhere along the alignment.

2 a. Confirmed

2 b. Confirmed

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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Please confirm this is acceptable

T-0182 **BSE - Inclinometer Locations Within The CDSM Wall** **Closed** **06/23/2011** **07/03/2011** **06/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets GT-1301, GT-1302, Specification Section 31 56 13, and Transmittal No. 140-01802 (attached)

Please refer to the Instrumentation Plan within the contract drawings GT-1301 & GT-1302, which depicts the rough locations of the 15 inclinometers (IW-1 through IW-15) that are to be installed through the CDSM shoring wall. Please notify BBII of the exact locations of those inclinometers by utilizing the soldier pile numbers 1 through 681, sent in Transmittal No. 140-01802 (attached).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Provide pipes at the piles (beams) in accordance with detail 13/GT-5101 in the following fourteen beam numbers: 46, 97, 138, 226, 306, 325, 340, 443, 458, 478, 497, 556, 641, 730. Refer to the plan submitted with the RFI for the beam numbers.

As noted in 13/GT-5101, wood block shall be used at the bottom of the pipe. The top of the pipe shall be covered with duct tape to prevent filling with soil cement.

T-0182.1 **BSE - Connector Wall Inclinometer Locations** **Closed** **06/30/2011** **07/10/2011** **07/05/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0182, Transmittal No. 140-01802, and Specification Section 31 56 13

BBII is in receipt of the Engineer's response to RFI T-0182, which lists the fourteen pile numbers where the inclinometers will be installed. Please note that pile # 443 was already installed on 06/18/2011, as part of the CDSM test panel.

Can the inclinometer casing be installed at pile # 446, instead of pile # 443?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The inclinometer casing shall be installed in pile number 440 rather than number 443.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0183	**BSE - Connector Wall Shift**	**Closed**	**06/23/2011**	**07/03/2011**	**06/27/2011**	**Potentially**	

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference RFI#T-0178, Sheets GT-2201, GT-5101, and attached sketch

Per the Engineer's response to RFI T-0178, it is acceptable to shift the CDSM Connector Columns to the east and to add additional columns to provide CDSM material for the full width of the Buttress. Please confirm that it is acceptable to shift the lower three rows of the CDSM Connector Columns approximately 3'-6" to the east and add two more columns to the top row. Additionally, please confirm that the CDSM Shoring Wall between Gridlines 26 and 30 can still be installed per GT-2201 and Table 16/GT-5101.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Provided there is no additional cost to the TJPA, it is acceptable to shift the connector columns and add columns as proposed and shown on the sketch.

The CDSM Shoring Wall between Gridlines 26 and 30 shall be installed per GT-2201 and Table 16/GT-5101.

T-0183.1	**BSE - Connector Wall Shift**	**Closed**	**06/30/2011**	**07/10/2011**	**07/11/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Daphne Faulkner
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference RFI#T-0151, RFI#T-0178, RFI#T-0183, Specification Sections 31 63 29 and 31 56 13, and attached drawing

Please refer to the Engineer's response to RFI # T-0151, which accepted the expansion of the Buttress 4'-4" to the east. Please also refer to the Engineer's response to RFI No. T-#0178, where the designer required the connector columns be shifted and/or supplemented with additional columns to provide CDSM material for the full width of the buttress. BBII suggests to revise the connector column layout per the attached drawing and install two additional connector columns at Grid "A" and "30" intersection.

Please confirm, if the proposed revision of the CDSM connector columns according to the attached drawing fulfills the design requirement.

Also, please issue revised construction drawings that would reflect the changes made to the Buttress and the CDSM connector walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The locations of the CDSM connector columns shown on the sketch accompanying the RFI are acceptable. The locations of the buttress shafts shown on the sketch accompanying the RFI have been revised. Please see the marked-up sketch attached to this response.

A revised GT-2201 will not be issued.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0184	**BSE - CIDH Pile Rebar Cage Hoop Size**	**Closed**	**06/27/2011**	**07/07/2011**	**06/28/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202, Specification Section 03 20 01, attached sketch, and approved Shop Drawings from Package TA2010-032001A05

Drawing 12/GT-5202 shows 5" clearance between the hoop OD and the inside diameter of a 7' +/- 2" shaft. Per discussions with Becho, at least 3" of clearance is needed between the rebar spacers and the ID of the casing to facilitate proper installation of the rebar cages inside the casing.

BBII would like to propose 7 1/4" minimum clearance in lieu of the 5" clearance (shown on 12/GT-5202) between the hoops and the inside diameter of the hole. Changing the clearance from 5" to 7 1/4" would give Becho the 3" of clearance that they need between the spacers and casing ID.

Note that the approved rebar shop drawings show 5" clearance to the hoops as per 12/GT-5202. BBII will submit for your records only revised shop drawings showing the proposed 7 1/4" minimum clearance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Changing the clearance from face of reinforing steel to the soil face from 5" to 7 1/4" is acceptable.

T-0185	**Division 01 specifications issued for the TG08.1 package**	**Closed**	**06/29/2011**	**07/09/2011**	**07/13/2011**	**Potentially**	☐

From: Webcor Construction LP Tim Maxwell **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Confirm if any of all of the Specification Sections 00 01 10, 00 01 15, 00 01 16, 00 03 50, 01 10 20 / APH, 01 10 30, 01 10 30 / APA, and 01 80 50 issued for the TG08.1 bid documents are to be incorporated into the overall project specifications. If so, the specifications should be issued to W/O by Field Order or Change Order.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, the revised Divsions 00 & 01 sections will be officially issued to W/O by maens of Add Amendment or Field Order, as appropriate.

T-0186	**BSE - Hazardous Materials Removed From 564 & 568 Howard Street**	**Closed**	**06/30/2011**	**07/10/2011**	**07/07/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Final Pre-Demolition Hazardous Materials Assessment: Asbestos & Lead Survey (564 & 568 Howard St) - June 2011, prepared for ERM-West by Millennium Consulting Associates

Please confirm that all the hazardous materials identified in the Final Pre-Demolition Hazardous Materials Assessment: Asbestos & Lead Survey (564 & 568 Howard St) - June 2011, will be removed by the demolition contractor.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Haz Mat abatement will include the materials identified in this report, however removal will be to the extent of demolition drawings issued for Demolition.

T-0187 **BSE - Connector Wall Inclinometer Locations - SEE RFI 182.1** **Closed** **06/30/2011** **07/10/2011** **08/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0182, Transmittal No. 140-01802, and Specification Section 31 56 13

BBII is in receipt of the Engineer's response to RFI T-0182, which lists the fourteen pile numbers where the inclinometers will be installed. Please note that pile # 443 was already installed on 06/18/2011, as part of the CDSM test panel.

Can the inclinometer casing be installed at pile # 446, instead of pile # 443?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SEE RFI T-0182.1.

T-0188 **BSE - Timber Piles Minna Street** **Closed** **07/01/2011** **07/11/2011** **07/05/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference D-2211 and D-5101.
During the pre-trenching operation on Minna Street between Gridlines 9-17, BBII discovered unknown timber piles. The timber piles are not shown on the BSE drawings. See attached BSE drawing D-2211, D-5101. The attached pictures indicate timber piles to be approx 2ft

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to note on Drawing D-2212 which states,

"In areas where (N)CDSM wall conflicts with the existing pile caps and piles, remove (E) pile caps and/or piles prior to construction of (N) Transit Center Building CDSM perimeter shoring wall (see Note 3 and

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from the centerline of the CDSM wall. These piles meet the general conditions set out in article 3.05A.2. The piles encountered were not outlined in the bid documents. Please confirm the removal of the "unforeseen" timber piles, tracking and paid under a Force account contract change order similarly as done for Zone 4 pre-trench obstructions.

6)."

Please refer to note on Drawing GT-5103 which states,

"Width and Depth as required to remove obstacles"

This includes all piles within the CDSM wall footprint.

"Unforeseen Conditions" are covered in Section 00 07 00 (General Conditions) Article 3.05.A.2 and 3.05.A.3 (Unforeseen or Changed Conditions).

Article 3.05.C states,

C. Differing Site Conditions shall not include:

1. All that is indicated in or reasonably interpreted from the Contract Documents or Reference Documents;

2. All that could be seen on Site

3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.

Since Section 31 56 13 discusses both pre-trenching and the removal of timber piles and Bid Item #6 is for the removal of timber piles before the CDSM shoring wall is installed TJPA believes that this work was indicated and will provide payment for it under Bid Item #2, #4, #6, and #7.

There will be no additional payment for the removal of timber piles for the CDSM wall.

T-0188.1	**BSE - Timber Piles Minna Street**	**Closed**	**07/07/2011**	**07/17/2011**	**07/12/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

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REQUEST:

Reference RFI T-0188, Drawing D-2211 and D-5101.

Further to the TJP A response RFI # 188, this response did not address the mentioned timber pile removal method.
Please see the attached cross section showing timber pile location in relationship to the existing utilities and structures. Due to the pile location, in relation to the shoring box BBII proposes direct extraction as done on A line in Zone 3.
Please confirm this removal method is acceptable for the entire length of Minna Street.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup recommends that the procedure for removing these piles follow the procedure described in Arup's response to RFI T-0146.4.

T-0188.2 **BSE - Timber Piles Minna Street** **Closed** **07/13/2011** **07/23/2011** **07/14/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference response to RFI#T-0188.1 and RFI#T-0146.4

As discussed at the TG03 BSE Design Team meeting on 7/13/2011, sand shall be used for back fillings instead of the low strength material described in RFI#T-0146.4.
Also, TJPA representative shall observe the extraction and instruct the extraction method in the field, if necessary.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA Representatives and Arup will observe the method in practice Thursday July 14, 2011 at 10am to observe the method using sand described above for final verification that this method will be acceptable and suggest any changes to the method at that time.

T-0188.3 **BSE - Timber Piles Minna Street** **Closed** **07/18/2011** **07/28/2011** **07/26/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0188.2 and attached photos

BBII has concerns for the integrity of the adjacent street and utilities, as a result of the pile extraction being performed on Minna Street in accordance with the response to RFI#T-0188.2. BBII has observed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor's concern for the integrity of the adjacent street and utilities is as a result of the shoring method used - not the result of the pile extraction being performed on Minna Street in accordance with the response to RFI#T-0188.2.

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undermining and adjacent settlement during the extraction process (see attached photos).

Please advise an acceptable method of pile extraction that will allow this work to continue

The observed undermining and adjacent settlement during the extraction process is to be restored to prevent damage to Utilities installed in Minna Street. The methods allowed in RFI T-0188.2 are to be followed by the Contractor.

Section 31-56-13 Part 3.2.C (CDSM Wall - Pre-trenching) also references Section 32-12-17 (Street Excavation & Restoration) for pre-trenching "...within and or adjacent to the public right of way." In addition Section 31-56-13 Part 3.2.D requires the Contractor to "Comply with all regulatory requirements regarding trench shoring." Both Section the Street Excavation and Restoration Specification 32-12-17 and the regulatory requirements for trench shoring require a shoring system designed by a Professional Engineer and submitted to TJPA as well as the SFDPW. OSHA requires for all trenches deeper than 5 feet and not sloped according to OSHA standards be designed by a Professional Engineer.

Given the above it is the Contractor's responsibility to select the means and methods and to design pre-trench shoring meeting the above requirements.

TJPA observations of the Minna Street pre-trenching operations showed that the "trench shield" method of support where excavation below the trench shield required for both sinking the shield and exposing "obstructions" allowed the loose fill sand at the bottom of the excavation to slough into the excavation. This loss of ground led to settlement of the street and potential settlement of the adjacent water line and sewer.

TJPA notes that the Contractor has commenced using near-flat sheet piles in combination with the trench shield bracing to achieve the depths required. However, no submittal of a design done by a professional engineer has been submitted to TJPA in accordance with the requirements from the Specifications stated above.

An acceptable method of pile extraction includes a suitable trench shoring method and plan that meets

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the Specification requirements. TJPA has no objection to the use of braced sheet piles as long as the above Specification requirements are met. The actual method of pile extraction with vibration and sand filling has been addressed in a previous RFI and TJPA has witnessed a satisfactory site demonstration of this method of pulling timber piles.

7/20/2011 - George Metzger:

ARUP Response:

Regarding the removal of the piles, Arup recommended a procedure in response to RFI 188.1. Contractor to confirm that this procedure is being implemented as described in the RFI response.

Regarding the installation of temporary shoring to access the piles, this is the Contractor's means and methods.

T-0189 **BSE - CDSM Spoils - Initial Off Haul** **Closed** **07/01/2011** **07/11/2011** **07/05/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Per our meeting on 6-23-11 with the TJPA, PMPC, T&R, TCCO and W/O, this RFI is to confirm the initial off haul of the CDSM spoils to be classified as Class 2 non-hazardous waste and will be paid under bid item #38 due to lack of soil testing data required by the landfill and risk of cross contamination.
BBII is currently in talks with various local landfills and their Consultant with the advice of Treadwell Rollo for the acceptance of the spoil to be classified under "clean soil" (not Class 2).
Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Initial CDSM overflow "spoils" is considered only the overflow spoils from the CDSM test panels in Zone 4. For the single purpose of removing the CDSM test panel overlfow now on the surface in Zone 4 and without prejudice for the classification of future CDSM overflow materials the "iniital" CDSM overflow materials (30 loads+/-) from Zone 4 may be hauled to a Class 2 land fill site. Payment will be in accordance with the Contract for disposal of Class 2 hazardous waste material for this one time until a future classification for CDSM overflow materials can be agreed with the land fill operator.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0190	**BSE - Connector Wall Daily As Built Requirement**	**Closed**	**07/01/2011**	**07/11/2011**	**07/13/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13 1.4F.

To satisfy the Section 31 56 13 1.4F requirement, BBII will continue to submit the "DND Daily Construction Report" on a daily basis along with the attached as-built drawing within 24 hours of column installation.

Please confirm that this will satisfy the Section 1.4F requirement: "submit as-built drawings within 24 hours of column installation."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached daily report lacks required information (i.e. surveyed as-builts, column diameter, etc.) and therefore does not satisfy the documentation requirements of spec 31 56 13 (1.4, 3.5, 3.11, 3.13, etc.).

T-0191	**BSE - Connector Wall Final As Built Requirement**	**Closed**	**07/01/2011**	**07/11/2011**	**07/12/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13 3.3B.

To satisfy the Section 31 56 13 3.3B requirement, BBII proposes to submit as built drawings prepared by a California licensed surveyor at the approximate completion of each Zone.

Please confirm that this will satisfy the Section 3.3B requirement: "Following CDSM wall construction, the Contractor shall submit as-built drawings prepared by a California licensed surveyor indicating the location of the CDSM walls relative to the excavation alignment."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Contractor to submit as-built drawings within 24 hours of column installation. The drawings shall be prepared by a licensed surveyor and shall indicate the CDSM wall relative to excavation alignment.

T-0191.1	**BSE - CDSM Connector Wall Final As Built Requirement**	**Closed**	**07/27/2011**	**08/06/2011**	**08/03/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0191 and Specification Section 31 56 13

BBII disagrees with TJPA's interpretation of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Submitting as-built drawings prepared by BBII/DND's

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requirements of the Specifications in its Response to RFI T-0191.

Article 1.4F, Section 31 56 13 of the Specifications state:
Record Documents
1. Submit as-built drawings within 24 hours of column installation.
2. Note and submit immediately to the TJPA's Representative unusual conditions encountered, including amounts of cement grout overpours during construction.

Article 3.11D2, Section 31 56 13 of the Specifications state:
The Daily Quality Control Report shall include as a minimum the results of the following QC parameter monitoring for each column:
a. Rig number
b. Type of mixing tool
c. Date and time (start and finish) of column construction
d. Column diameter
e. Column top and bottom elevations
f. Grout mix design designation
g. Slurry specific gravity measurements (obtained from the Testing Agency)
h. Description of obstructions, interruptions, or other difficulties during installation and how they were resolved
i. Surveyed as-built of previous day's work in relation to grid

Article 3.3B, Section 31 56 13 of the Specifications state: (emphasis added)
Following CDSM wall construction, the Contractor shall submit as-built drawings prepared by a California licensed surveyor indicating the location of the CDSM walls relative to the excavation alignment.

Article 3.3B of the above provides the only requirement for a survey performed by California licensed surveyor. BBII's proposal in RFI T-0191 exceeded the requirements of Article 3.3B by proposing to submit as-built drawings prepared by a California licensed surveyor at the completion of the CDSM wall at each Zone, rather than at the completion of the entire CDSM scope as the Specifications require.

project staff within 24 hours of installation is acceptable.

As-built drawings prepared by a licensed surveyor shall be submitted as each of the following sections of wall are completed:

1. A-line inside Zone 4

2. J-line inside Zone 4

3. Beale and N-lot

4. Fremont Street

5. First Street

6. A-line inside Zone 3

7. J-line inside Zone 3

8. A-line inside Zones 2 and 1

9. J-line inside Zone 2 to Grid 10

10. J-line inside Zone 1 from Grid 10 to Grid 1 and gridline 1

The drawings for a given section shall be submitted within 14 calendar days of completing that section.

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Please confirm that submitting as-built drawings prepared by BBII/DND's project staff within 24 hours of installation and as-builts of each zone at the completion of the zone by a licensed surveyor is acceptable. BBII will perform additional survey by a licensed surveyor if necessary at areas of concern, to ensure conformance with the project requirements.

T-0192 **BSE - Unforeseen Tank on Gridline 35** **Closed** **07/06/2011** **07/16/2011** **07/08/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

BBII discovered an unforeseen tank structure during the pre-trenching operation along Gridline 35 between Gridline A-J that is not shown on the contract plans. The tank contains liquid substance; the odor from the excavation around the tank, it is assumed this is a fuel liquid. This tank needs to be removed to allow the continuation of the pre-trenching operation. Please advise as soon as possible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA environmental consultant has contacted Golden Gate Tank Removal Co and removal is being scheduled. The TJPA has not yet received the paperwork from the Golden Gate Tank Removal Co. to schedule the date. TJPA will discuss further with W/O - BBI regarding handling.

T-0192.1 **BSE - Unforeseen Tank on Gridline 35** **Closed** **07/11/2011** **07/21/2011** **08/01/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0192 and attached photo

The unforeseen tank discovered during the pre-trench operation on Beale Street contains liquid. The liquid has spilled and is present in the surrounding soil, visible from the surface. The response to RFI#T-0192 does not address the soil surrounding the tank. BBII suspects this soil is contaminated with hydrocarbons in excess of the current approved Class 1 profile.

Please advise on the classification, limits and disposal

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached test reports

Report Completed By - Title - Date - Work Order - Number of Pages

McCampbell Analytical, Inc. - Analytical Report - July 20, 2011 - 1107352 - 8
McCampbell Analytical, Inc. - Analytical Report - July 25, 2011 - 1107352 A - 8

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methods for the contaminated soil surrounding the tank.

07/15/2011 Roger Rothenburger

TJPA has had their environmental consultant,Treadwell & Rollo (Peter Cusack) arrange for the underground storage tank (UST) and its contents to be removed, test samples of the material, determine the extent of the contamination, and the proper disposal of the soil around the tank. The following response has been reviewed by Mr. Cusack.

1. Soils in the area of the UST were orginally classified as Class I from 0~6ft below grade and Class II from 6~22 feet below grade (Soils Management Plan figure 4 & 7.
2. Remove and stockpile contaminated soils in the immediate area of UST including 2 feet along the sides of the UST and 2 feet below the UST.
3. If soils beyond this area still have a strong gasoline or petroleum odor then remove those soils as well.
4. The samples taken by TJPA environmental consultant Peter Cusack on Thursday July 14, 2011 will be chemically tested for different contaminents.
5. The results of these tests will not be available for approximately 2 weeks (July 28, 2011).
6. Maintain the contaminated stockpiles covered until classifiecation is complete and further directions are given by TJPA at that time.
7. Backfill the open trench/hole from which the contaminated material described above has been removed with clean suitable material as defined in the Specifications.

T-0192.2 **BSE - Unforeseen Tank on Gridline 35** **Closed** **08/02/2011** **08/12/2011** **08/15/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0192.1

The Analytical Report for the sample taken from the soil around the Underground Storage Tank (UST) has been

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Treadwell and Rollo Response -

Based on the attached analytical results, the soil excavated from the tank removal activities is

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sent to BBII. The soil classification that has been determined was not listed in the response, nor the Analytical Report. Please advise on the classification of the soil.

considered Class II material and should be disposed of as Class II material using the established soil handling procedures.

T-0193 **BSE - CDSM Buttress Connector Wall** **Closed** **07/07/2011** **07/17/2011** **07/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13

DND is refining the CDSM Shoring Wall mix design based upon the initial results of the Zone 4 Test Section in order to meet the specified compressive strength and permeability. DND is currently planning on trying 2 new mixes / methods in the CDSM Buttress Connector Wall:

1) Single Phase (down and up with grout only) - 275 kg/m3 cement treatment, 220% water/cement, specific gravity ~1.4
a. Based on Japanese experience
2) Two Phase (down with water, up with grout) - 265 kg/m3 cement treatment, 70% water/cement, specific gravity ~1.7
a. Based on US experience

DND is currently proceeding with the installation of the CDSM Buttress Connector Wall. Per BBII's July 5, 2011 meeting with the Engineer, BBII believes that this approach is acceptable for the CDSM Connector Wall and the CDSM Buttress Connector Wall will not have to be re-mixed in the event that it does not achieve the specified compressive strength of 90 psi at 28 days and 120 psi at 90 days. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup will review the strength tests from the connector columns and make a determination of acceptable in-situ strength based on these.

T-0194 **BSE - Unforeseen Buried Obstructions at CDSM Connector Wall in Zone 4** **Closed** **07/12/2011** **07/22/2011** **07/19/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

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Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13, attached sketches, and photo

During the installation of the CDSM Connector Wall at Zone 4, DND's drill rig hit unidentified buried obstructions at approx. 14' - 15' below the original grade (El. 0 ~ -1). Please see DND's attached sketch for further details. The exact location and composition of the obstructions are yet to be determined but BBII's preliminary findings indicate that they are timber piles that were neither shown on the original contract plans nor found during buttress area pile extraction. Find attached the as-built drawing that depicts the locations and the top elevations of the timber piles that BBII extracted at that location. Please note that the top elevations of the extracted piles range between 2.40 to 3.11 feet.

BBII has just been informed by DND Construction that the other rows of the connector wall cannot be installed while these obstructions are being removed per the committee meeting on 07/11/2011, due to the proximity of the obstruction removal trench to the next two rows. The CDSM connector wall installation has currently ceased until further notice. BBII is currently seeking drill rigs capable of removing these obstructions also as discussed at the committee meeting.

Please direct BBII on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA and its Representative agreed that the reasonable approach for removal of the obstructions as encountered was to mobilize an auger drill rig similar to the Viking drill rig used for the dewatering wells and removal of broken off piles along 181 Fremont sreet to drill out the area. A 36" diameter casing was used in this application. This meeting was held on Monday July 11, 2011 at approximately 12:30pm.

The drill rig arrived on site mid Thursday morning July 14, 2011 (3 work days after the site meeting) and drilled until 7pm exploring the CDSM connector piles in the remaining rows. The material removed was some wood (volume less that a 5 gallon bucket - photos attached) and a number (approximately 15 pieces)of chunks of unreinforced concrete 3" to 10" in size.

At this time without more evidence TJPA believes that this material was inadvertantly left behind in the backfilling of the timber pile removal zone. BBI should prepare a formal claim as to why TJPA should pay for this work or delay. TJPA will give it fair consideration but needs to have this filed as a claim outside the RFI process. BBI did perform the work in accordance with specifications and site agreements made as to means and methods for the way forward. The drill rig requiring 3 work days to mobilize was at the choice of BBI to use their subcontractor Malcolm-DND.

T-0195	BSE - Unknown Utility on Beale Street West Side	Closed	07/13/2011	07/23/2011	07/14/2011	Potentially ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached photos and drawing

BBI discovered an 8" utility line during the installation of the wheel wash on the west side of Beale Street. The utility indicated in the attached pictures is not shown on the BSE contract drawings. The alignment (North to South

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Remove the obstruction in accordance with the best means and methods. Maintain records of labor, equipment, materials for removal. Inform TJPA Representative of the methods chosen before starting work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

direction) of this utility appears in conflict with the CDSM wall. On 7/12/2011, BBI was able to confirm that this utility is not active. This utility will need to be removed during the pre-trenching operation, to avoid conflict with the CDSM.

Please advise on the method for removal of this utility line.

T-0196 **BSE - CDSM Shoring Wall Installation Sequence Zone 4 North of A-Line** **Closed** **07/20/2011** **07/30/2011** **07/26/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201 and Specification Section 31 56 13

See Note 1 on Sheet GT-2201. DND is concerned that if the row of buttress connector columns (A/26.5 - A/30) immediately adjacent to the shoring wall is installed prior to the shoring wall, the shoring wall will not meet verticality and tolerance specifications due to a difference in strength of the soil on one side and the CDSM on the other side. BBII believes that it will be possible to install the buttress connector columns after the shoring wall without hitting the shoring wall beams.

Is it acceptable to install the shoring wall prior to the immediately adjacent buttress connector columns?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable. Contractor to exercise care to prevent the auger from hitting the soldier pile while achieving the column overlap shown on 9/GT-5101.

T-0197 **BSE - Maximum Allowable Vibration** **Closed** **07/20/2011** **07/30/2011** **08/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Sections 31 09 13 and 01 35 65

According to the Final FEIS/EIR, specified in the Specification 01 35 65 as the reference document, the Vibration Impact Criteria, which is the base criteria for the analysis, is shown in the table 5.21-8 (refer to BBI RFI for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The table reportedly from the FEIS/EIR included in the RFI appears to be in error. This shall be addressed by others.

The Action Trigger Level and Maximum Allowable peak particle velocities listed in Table 1 in

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

table).

The vibration impact criteria used in the Final FEIS/EIR contradicts the Maximum Allowable Movement for the vibration (PPV) specified in Specification 31 09 13. In this specification section, the maximum allowable movement for vibration and the action trigger level is described in Table 1 (refer to BBI RFI for table).

Please clarify where within the project site the vibration impact criteria for fragile structures are applicable (according to Specification 01 35 65), and where the maximum allowable movement for vibration of 1 inch per second is applicable (according to Specification 31 09 13).

specification section 31 09 13 are for separate, transient vibration events rather than continuous construction vibration. It is not known if the values shown in the FEIS/EIR table are intended for transient or continuous events.

The Action Trigger Level and Maximum Allowable peak particle velocities listed in Table 1 in specification section 31 09 13 apply to all structures around the site where vibration monitoring will occur. In drawing up these values we have taken into account the types of plant likely to be employed in construction and the very low probability that the natural frequency of the input vibrations will approach those of the surrounding buildings and utilities.

The RFI question regarding the identification of "fragile structures" shall be addressed by others.

URS - Response by Alana Callagy 8/11/2011

The table in the FEIS/EIR included in the RFI is in error. The table cites the FTA as the source of the potential impact thresholds for vibration. However, the table used in the FEIS/EIR appears to have reversed the FTA's threshold levels. The RFI should cite Table 12-3 (page 12-13) of the FTA's Noise and Vibration Manual (www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf).

FTA Table 12-3 is for potential structural or architectural building damage, which is generally a function of Peak Particle Velocity (PPV), not a time-averaged level. These criteria should be applied to both transient and continuous construction events. Furthermore, the PPV value should be presented/evaluated as the vector sum of the PPV values in the three orthogonal coordinate directions (vertical, transverse, and longitudinal or x,y,z).

The FEIS/EIR called out "fragile structures" however when we reviewed the table (after first identifying that the table should be inverted to be consistent with the FTA's manual) it may be assumed that "fragile" would

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0197.1	**BSE - Maximum Allowable Vibration**	**Closed**	**07/20/2011**	**07/30/2011**	**09/12/2011**	**Potentially**	☐

related to "non-engineered timber and masonry buildings." Based on FTA table 12-3, a little more detailed discussion is as follows:

Class I: buildings in steel or reinforced concrete, such as factories, retaining walls, bridges, steel towers, open channels, underground chambers and tunnels with and without concrete alignment, 0.5 PPV in/sec.

Class II: buildings with foundation walls and floors in concrete, walls in concrete or masonry, stone masonry retaining walls, underground chambers and tunnels with masonry alignments, conduits in loose material, 0.3 PPV in/sec.

Class III: buildings as mentioned above but with wooden ceilings and walls in masonry, 0.2 PPV in/sec.

Class IV: construction very sensitive to vibration; objects of historic interest , 0.12 PPV in/sec.

We are not sure where the maximum allowable value of 1 in/sec (presumably PPV) came from prior to it being put in the spec. This value seems too high relative to the FTA criteria presented in FTA Table 12-3 (which range from 0.12 to 0.5 in/sec PPV for various building categories). Ideally, the vibration values should be measured as close as possible to the edge of the building footprint, preferably in the internal envelop of the building, such as a basement or first floor slab floor within about a foot of the exterior wall nearest to the vibration generating activity. Locations away from the walls and on upper floors should be avoided since these areas could show elevated values due to building amplification. If interior areas are not available, an exterior location close to the edge of the building structure nearest to the construction activity can be used. In either case, care should be taken that the transducer is adequately coupled with the surface being measured and that PPV vector sum values are being reported.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Turner Construction Company Gary Krutsch
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Webcor/Obayashi Joint Ventu Nhi Tran
Answered By: Turner Construction Comp Kevin Chiu

REQUEST:

Refer to RFI #T-0197

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Table 5.21-8: Construction Vibration Impact Criteria in the Project EIS / EIR has a number of typos. Refer to Table 12-3: Construction Vibration Damage Criteria in Transit Noise and Vibration Impact Assessment (FTA document # FTA-VA-90-1003-06) for the corrected version. For the avoidance of doubt, these values shall be considered Action Trigger Levels as defined in Section 31 09 13 of the Specification. All the buildings within 25 ft of the site boundary shall be considered to be Category I with the exception of the following buildings that are to be considered Category III:

177/181 Fremont Street

530 Howard

540 Howard

580 Howard

594 Howard

133 Second St

141 / 143 / 145 Second

163 Second

171 Second st.

90 Natoma

92 Natoma

83 Minna

46 Minna

In accordance with the recommendations at Section 12.2.1 of FTA(2006) , we expect BBI to assess quantitatively the potential groundborne vibration impact from site operations on adjacent buildings using the formula:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(PPVequip)=(PPVref) x (25/D)**1.5.

Where PPV ref is the reference peak particle velocity for a given item of equipment in Table 12-2 of FTA(2006) and D is the shortest distance between the operating location of the equipment and the building to be assessed.

Where the item of plant is not listed in either FTA(2006) or Caltrans (2004), BBI should carry out calibration measurements at ground surface in order to provide equivalent (PPV ref) values.

BBI should carry out vibration monitoring inside buildings when (PPV equip) is calculated to lie within 90% of the values given in Table 12-3: Construction Vibration Damage Criteria in Transit Noise and Vibration Impact Assessment in FTA-VA-90-1003-06. The Action Trigger and Maximum Allowable movement level for vibration given in Table 1 of Section 31 09 13 is for Category I buildings only.

T-0197.2 **BSE - Maximum Allowable Vibration - VOID** **Closed** **09/12/2011** **09/22/2011** **09/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Marina Rosso

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0197, Specification Section 01 35 65 & 31 09 13, and attached map

BBII recognizes and agrees Table 5.12-8 is in error, and BBII will refer to FTA Table 12-3 as the correct table. However, BBII believes the TJPA's response provides information that is in conflict with the specifications as well as between the two separate responses provided. BBII requests the following clarifications and confirmations:

1. BBII has applied FTA Table 12-3 per [RFI #T-0197]

SUGGESTION:

(Can't find answer in Constructware)

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(BBI RFI 147) to the attached map. The attached map indicates PPV values for continuous construction events, based on the surrounding buildings. Please review and verify this interpretation. Please note that this table, as also indicated in ARUP's response, applies to "continuous construction events".
2. As also stated in ARUP's response, BBII's interpretation of Section 31 09 13 is that the limits provided in this section apply to "transient construction events". Therefore, contrary to URS' response, the values provided in this section are applicable to transient construction events.

In addition, BBII will apply Table 1 in Specification Section 31 09 13 for transient construction events to all structures around the site. Table 1 indicates the Action Trigger Level for vibration (PPV) is 1/2 inch per second and Maximum Allowable Movement for vibration (PPV) is 1 inch per second.

Please confirm the vibration Peak Particle Velocity (PPV) values indicated above are acceptable for continuous and transient construction events.

T-0198 **BSE - Demolition Drawings in South-West Corner of Zone 1** **Closed** **07/28/2011** **08/08/2011** **08/25/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01

BBII is requesting a copy of the added scope demolition drawings issued to EBI, for the South-West corner of Zone 1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached Transmittal 140-02181, sent to W/O on 8/25/2011.

T-0199 **BSE - Pile Extraction Method For Grid Line 35.2** **Closed** **08/01/2011** **08/11/2011** **08/15/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference RFI#T-0188.2

After exposing piles at grid line 35.2 east of Beale Street, BBII intends on extracting these piles as per the method described in RFI#T-0188.2 (BBI 0139.2). This involves backfilling any voids with sand. Please confirm this method is acceptable.

ARUP Response:

Arup did not respond to RFI T-0188.2. As noted in our response to RFI T-0188.1, we recommend that the procedure for removing the piles east of Beale Street follow the procedure described in our response to RFI T-0146.4 with the exception that backfilling with sand is acceptable.

T-0200 **BSE - Unforeseen Buried Obstructions - Zone 4 A Line (Gridline 27-34)** **Closed** **08/02/2011** **08/12/2011** **08/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13, attached photos, and sketch

On Saturday, July 30th 2011, DND's CDSM drill rig encountered unidentified buried obstructions during the installation of the CDSM Shoring wall panel identified by the pile numbers 285-286 at Zone 4 "A" line between Grid "27 & 28". The newly found obstructions are deeper than the previously excavated timber piles.

DND construction initially attempted to drill through the buried obstructions without success. The drill rig was subsequently moved to further east to drill the next available panel. Between 10:30 am and 3:30 pm, DND made eight drilling attempts along the "A" line between pile numbers # 285 and # 300. All eight drill attempts failed due to the similar obstructions encountered within the 13' - 17' depth range below grade. Consequently, the CDSM shoring wall installation along grid line "A" at Zone 4 had to be suspended. DND is able to provide a drill rig to drill out these obstructions and currently this rig is scheduled to arrive Tuesday morning, August 2, 2011.

These obstructions constitute a differing site condition in accordance with Article 3.05 of Section 00 07 00 of the Specifications.

Please provide confirmation and/or direction regarding the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Contract Spec. 31-56-13 Shoring wall by CDSM Method Para 3.2 Pretrenching and removal of Obstructions, Contractor is to " remove any obstructions that might be encountered along the alignment of the walls. The depth and width of trench shall be that required to remove the obstructions from the path of the shoring wall."

This area was to be Pretrenched per Spec and should have been cleared. The Spec calls for fill the voids from pile removal with 300psi CLSM, However; the area in question had CLSM installed of between 1000psi and 1600psi which may be causing this condition.

"Unforeseen Conditions" are covered in Section 00 07 00 (General Conditions) Article 3.05.A.2 and 3.05.A.3 (Unforeseen or Changed Conditions).

Article 3.05.C states,

C. Differing Site Conditions shall not include:

1. All that is indicated in or reasonably interpreted from the Contract Documents or Reference Documents;

2. All that could be seen on Site

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

following:

- BBII is to proceed with drilling out these obstructions on 8/2/2011, so CDSM installation in this area can continue.
- These obstructions constitute a differing site condition.

3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.

T-0201 **BSE - Buttress Shift To South** **Closed** **08/02/2011** **08/12/2011** **08/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201, RFI#T-0151, and attached sketch

Per response to RFI T-0151, the Buttress can expand to the east as long as it doesn't shift to the south. Per discussions with Arup in last week's TG03 BSE Design Team Coordination Meeting (7/27/2011), it is acceptable for the Buttress to shift to the south per the attached sketch. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The shift shown on the sketch is acceptable.

T-0202 **BSE - Pile Extraction Method For Grid Line 33.5** **Closed** **08/04/2011** **08/14/2011** **08/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0146.2

After exposing 5 piles at gridline 33.5 west of Beale Street, BBII intends on extracting these piles as per the accepted method described in RFI # T-0146 2,

"6. BBII will extract the wood piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.
7. BBII will backfill the void with low strength material Central Concrete Mix FOA100CX (RFI #T-0138.1).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor may wish to consider placing the steel sheet prior to excavating to retain the material under Beale Street to keep it from sloughing into the excavation.

Extract the wood piles with vibratory hammer, with the same stroking procedure without steel casing. BBII will perform dewatering enough to be able to connect the hammer to the pile.

Option: Backfill the void with CLSM low strength material Central Concrete Mix FOA100CX (RFI #T-

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

8. BBII will backfill the piles.

Answer:
Per Brian Dykes, this work is authorized to proceed. Allowable work hours will be established after 199 Fremont pile extraction begins."

This involves backfilling any voids with 1 sack sand. The attached drawing indicates the location and quantity of piles to be extracted. Please confirm that this method is acceptable.
Also, please advise if any work hour restrictions apply.

0138.1).
Option: Back fill the pile voids using a tremie pipe of minimum length 20ft attached to the concrete bucket. The tremie shall be inserted as far into the pile hole as possible prior to pouring the concrete, and the concrete shall be placed using normal tremie techniques. BBII will make efforts to pour the material into the void as possible, but BBII is not responsible to eliminate void completely."(RFI 146.4)

Recommends that the procedure for removing these piles follow the procedure described in Arup's response to RFI T-0146.4. Optional is to use method from RFI 188.2. Sand can used for back fillings instead of the low strength material described in RFI#T-0146.4.

T-0203 **BSE - Clearance From Verticals For CSL Tubes** **Closed** **08/04/2011** **08/14/2011** **08/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202, Specification Section 31 63 29, and attached photo

In the Phase 1 DFOW Buttress Rebar QC Meeting at Harris-Salinas Rebar's yard in Livermore on 8/01/2011, ARUP suggested moving the adjacent vertical bars away from the CSL tubes to allow for approximately 4" of concrete cover along the entire length of the shaft. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
The longitudinal bars on each side of each CLS tube shall be shifted so that the clear distance between a given bar and the CSL tube is 3" minimum, 4" maximum. The total number of bars which will be shifted is 8.

T-0204 **BSE - Tie Backs Along 535 Mission Street - Vacant Lot** **Closed** **08/04/2011** **08/14/2011** **08/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference GT-2102 & Detail 8 - GT-5103

BBII cannot locate the tie backs in the area of the vacant lot on Minna St. described in the Detail 8 on Contract Drawing GT-5103. The BBII crew went to a depth of 17 feet along the Pre-Trench and was unable to locate the tie backs. This was an additional foot more than the specified 15'-0" +/- 1'-0" depth. BBII believes the tie backs do not extend into the Pre-Trench limits and plans to move forward. Please advise if there is information to the contrary.

BBII is to continue plans and specs (Ref: Dwg. Detail 8 GT-5103). Subsequent to this RFI BBII did locate and sever a tie back in Minna Street trench from the 535 Mission St. Project .

BBII was directed to be cautious when installing sheetpile shoring to ensure the Tie Backs are cut back sufficiently to prevent interference with CDSM Drill/Wall installation.

2011-08-09 George Metzger
ARUP Response:
No additional information is available. Turner or PMPC to provide answer to this RFI.

T-0205 **BSE - Testing Weld On Hoops** **Closed** **08/05/2011** **08/15/2011** **08/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202 and Specification Section 31 63 29

Per SS03.20.01.3.3.B.4, "Inspect welding as required by Code for compliance with AWS D1.4."

Per AWS D1.4.2, "Other welding processes may be used when approved by the Engineer, provided that any special qualification test requirements not covered here are met to ensure that welds are satisfactory for the intended application will be obtained."

As of this writing, the AWS does not cover Resistance Welding which is the type of welding that Harris-Salinas Rebar is using for the hoops. Caltrans has a written specification for Resistance Welding. Per Caltrans Standard Specifications Section 52, four (4) samples out of a lot of one hundred fifty (150) are taken to the lab for testing. If three (3) or more samples comply with the requirements, the whole lot is accepted. If only two (2)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

samples comply, one (1) additional test of four (4) samples out of the same lot is allowed. If any of the four (4) fail, the whole lot is rejected.

It was agreed upon in the DFOW meeting this week (8/1/2011) that it is acceptable to test the lots per Caltrans Standard Specifications. Please confirm.

T-0206 **BSE - Smart Hoops For CSL Tubes** **Closed** **08/05/2011** **08/15/2011** **08/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202, Specification Section 31 63 29, attached photo and sketch

Drawing GT-5202 shows four (4ea) 4" CSL tubes equally spaced around the perimeter of the shaft tied to reinforced steel.

Approved rebar shop drawing shows a square spider designed to serve two purposes:
1. To allow the tremie pipe to pass through.
2. To keep the CSL tubes equally spaced around the perimeter per Drawing GT-5202.

In subsequent discussions the engineer suggested orientating the CSL tubes at a 23 degree angle from the longitudinal center of pile. In the Phase 1 DFOW Buttress Rebar QC Meeting on 8/1/2011 Harris-Salinas Rebar suggested using "smart hoops" to keep the CSL tubes in place and symmetrical around the perimeter at 23 degrees since the square spider could no longer be utilized for CSL tube alignment. This suggestion was well received by meeting attendees. Please confirm that the 23 degree CSL spacing is required. If so, please advise if the added "smart hoop" CSL alignment bars are acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 23 degree CSL spacing is required. The added "smart hoop" CSL alignment bars are acceptable.

T-0207 **BSE - Unknown Fiber Optic on Fremont Street** **Closed** **08/09/2011** **08/19/2011** **08/12/2011** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 02 41 01

PG&E was scheduled to have all the utilities and structures confirmed dead on the East side of Fremont Street 8/07/2011 as part of the phase 1 PG&E relocation work. On 8/08/2011, W/O and PG&E conducted a USAR walk-through on Fremont Street to sign off and confirm that all PG&E utilities and structures have been confirmed de-energized and abandoned. PG&E discovered a live fiber optic cable between vaults 1675-1670. This fiber optic cable is in conflict with and causing delays to the CDSM wall and Buttress work commencement.

Please provide a date this fiber will be confirmed de-energized.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Fiber was confirmed de-energized on 8/12/11.

T-0208 **BSE - Long Term Seismic Loading** **Closed** **08/09/2011** **08/19/2011** **08/12/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-1110 and Specification Section 31 55 00

Note 7 on sheet GT-1110 states that "Seismic Increment Loads shall be considered to be long term loading." Per conversation at the 8/03/11 TG03 Design Team Coordination meeting, BBII understands that this note applies only to the lower level struts at the 301 Mission buttress case. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We refer to Comments and Corrections provided by DBI to TJPA in a document dated July 27, 2011 at item G 23.

With reference to Drawing GT-1110 we clarify that Note 7 applies strictly to the incremental strut loads in Table 7 (301 Mission buttress case shaking analysis) and consequently apply to calculations for the lowest level of struts and walings between Gridlines 26 and 30. The incremental strut loads given in Tables 5, 6 and 8 can be considered as transient, rather than long term, loads on the bracing system.

T-0209 **BSE - Abutment Bearing On CDSM Wall** **Closed** **08/11/2011** **08/21/2011** **08/19/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Specification 01 53 13

During previous discussions with URS, ARUP, and DPW it has been expressed that the temporary bridge abutments should not bear on the CDSM shoring wall. The temporary bridges spec section 01 53 13, however, specifically states that "abutments for bridges shall be supported by the CDSM shoring wall." Please advise if this statement still applies.

Yes, statement still applies.

T-0209.1 **BSE - Abutment Bearing On CDSM Wall** **Closed** **09/02/2011** **09/12/2011** **09/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0209, Specification Section 01 53 13, and attached sheets

Included with this RFI are loading conditions for CDSM supported abutments. Please confirm that the shoring wall as currently designed can accommodate the loading.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Contractor to provide calculations demonstrating the adequacy of the shoring wall to support the loads from the bridges.

T-0209.2 **BSE - Abutment Bearing On CDSM Wall - Follow-Up** **Closed** **09/13/2011** **09/23/2011** **09/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0209.2, Specification Section 01 53 13, and attached sheets

As requested by ARUP, please see the attached loads placed on each individual CDSM soldier beam beneath the proposed temporary bridge abutment. The loads include both the bracing self weight and the combined dead and live loads of the temporary bridges.

BBII requests confirmation from the CDSM shoring wall EOR that these imposed loads do not exceed the assumed vertical loads used during original design

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response: The results of the analysis reported in the table "SUMMARY OF LOADS ON CDSM SOLDIER PILES AT BRIDGE ABUTMENTS" indicates that, for a number of locations, the load per soldier pile is too great and that the pile spacing will need to decrease from 4'-0" o.c. to 2'-0" o.c. to reduce the load per pile. Subsequent analysis by the Contractor shall demonstrate the structural adequacy of the pile shape and the adequacy of the pile embedment.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

analysis.

T-0209.3 **BSE - Abutment Bearing On CDSM Wall - Follow-Up** **Closed** **09/13/2011** **09/23/2011** **09/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0209.2, Specification Section 01 53 13, and attached sheets

As requested by ARUP, please see the attached loads placed on each individual CDSM soldier beam beneath the proposed temporary bridge abutment. The loads include both the bracing self weight and the combined dead and live loads of the temporary bridges.

BBII requests confirmation from the CDSM shoring wall EOR that these imposed loads do not exceed the assumed vertical loads used during original design analysis.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

1. The CDSM wall cannot accept the widely varying point loads as implied by the submitted tables of imposed loads from the cross-lot bridges. We recommend that a spreader beam arrangement is provided for each bridge abutment and is connected to the all the affected W21x201 soldier piles in the CDSM wall. A vertical spring constant of 1150 kips/inch can be used to calculate the pile reactions under such a spreader beam arrangement for the range of loads given.

2. The allowable loads from the bridge deck for the soldier piles on the basis of 1 above is 90 kips/pile at an excavation of 10 feet below grade and can be taken to fall linearly to 60 kips/pile at 60 ft elevation depth.

3. It follows from 2 above that the ability of the CDSM wall to carry the maximum load, the construction crane condition, will reduce as excavation proceeds. This may require disassembly of the construction crane into smaller components in order to remove it from site at the later stages of excavation.

4. The load pathway, from the bridge deck at the abutment into the ground, is in direct shear transfer across 2 interfaces: steel/soil mix and soil mix/in-situ ground. The shear transfer across the steel/soil mix interface cannot be estimated with accuracy, in the absence of an embedded soldier pile test in compression or tension. If the early excavations, down to 10 feet below grade at the bridge abutment, show that soil mix falls away easily from the face of the W21

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

steel soldier pile, the bond/interface shear is likely to be very low indeed and the allowable capacity of the soldier piles will need to be re-evaluated.

T-0209.4 **BSE - Abutment Bearing On CDSM Wall - Follow-Up** **Closed** **01/09/2012** **01/19/2012** **01/16/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Reference T-0209.3, Specification Section 01 53 13

Contrary to RFI response T-0209.3, subsequent to the test pile loading CR T-025 during which there was little to no movement please confirm the revised direction to install the bridge abutment atop the CDSM wall at all streets pursuant to specification section 01 53 13.1.2.A.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup cannot provide a response to this RFI without seeing the revised design of the bridge bearing on the soldier piles and the revised calculations.

T-0210 **BSE - Pile #498 Top Of Pile Elevation Issue** **Closed** **08/16/2011** **08/26/2011** **08/19/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference W/O NOTICE0010 (attached), Sheet GT-5101, and Specification Section 31 56 13

Please address the following information request from BBII's subcontractor DND:

"The specifications do not specify an allowable tolerance with regard to the vertical position of the beam tip relative to the plan drawings (GT-5101, Note 16). Please clarify the allowable tolerance for the beam tip elevation.

For example, beam 498 (BBII ID #287) was set slightly high. The beam was measured prior to setting to be 97'-5 1/2" long. It was set to a top elevation of approximately +16'-11" which calculates a tip elevation of approximately -80.63'. Specified tip elevation is -81-0" in this wall section (J/27-33.5)."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The acceptable variation in bottom of pile elevation (shown on 16/GT-5101) is +/- 1'-6". In order to verify this using the top of pile elevation as the measure, the Contractor shall provide Turner with the length of the piles.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0211	Easement Information	Closed	08/11/2011	08/21/2011	08/23/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference Email "Fencing Plan at CDSM Wall Radius R2-1 and X1-1" from Turner on 8/10/2011 and attached documents

W/O received the enclosed email "Fencing Plan at CDSM Wall Radius R2-1 and X1-1" and it's attachments from Turner on 8/10/2011, listed below:
- 3192 OR 151 easement.pdf
- Parcel F BNDY-ALTA_AB3721_15A_Rev 1.pdf
- CASFRA_2007 00369409.pdf
- Eminent Domain Fencing Plan .pdf

The information contained in the above documents differs from and/or does not exist in the current contract documents. Please provide a direction on what W/O and our Trade Subcontractors are to do with this easement information. In addition please indicate what requirements the TJPA expects Webcor Obayashi to now comply with.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The information contained in the above documents is provided for information. WO and our Trade Subcontractors are to ensure the 540 Howard has 24 hour access to their easement. The current location of the CDSM wall and protection fencing will accomodate this access.

T-0212	BSE - Unforeseen Timber Piles At Grid Line 33.5 J	Closed	08/15/2011	08/25/2011	08/16/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0148.1, Sheet D-2213, attached photos and sketch

BBII exposed 24 piles at gridline 33.5 J close to Beale Street in Zone 4, as shown in the attached photographs. However, drawing D-2213 indicates five piles inside the CDSM wall limits. BBII intends to extract these piles using the method approved in RFI # T-0148 1. Please confirm that it is acceptable to continue tracking this unforeseen work as CR-T-010, as was practiced in this area previously.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFIs shall be used for interpretation or clarification of the Contract Documents (01 10 40) and a change request (CR) is not a Contract Document as defined by the General Conditions. Questions related to construction means, methods, techniques, sequences, procedures and non Contract Documents will not be replied to by the TJPA and will be rejected (01 10 40).

Refer to the procedures of previously issued CR T-010 for further direction.

T-0213	BSE - Pile Extraction Method For Concrete Piles Between GL 5-10 at Natoma St	Closed	08/15/2011	08/25/2011	08/19/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0188.1, Specification Section 02 41 19, and attached sketch

BBII intends on extracting the existing concrete piles located between gridlines 5 and 10 on the south side, using the method approved in RFI#T-0188.1. This involves extracting piles using the vibratory hammer without a steel casing and backfilling the void with structural pre-trench sand. Attached is a drawing indicating the locations of the piles obstructing the CDSM wall. Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable for concrete piles which are 16" x 16" square or less and which are located 16 ft or greater from the nearest face of an adjacent building.

T-0214 **BSE - Instrumentation Protection Slab Zone 4** **Closed** **08/16/2011** **08/26/2011** **08/23/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5102 and attached shop drawing and BBI sketches

BBII is proposing to pour a 2' thick instrument slab per the attached BBII drawings in lieu of the 1' thick concrete slab shown on Drawing GT-5102 to match the overall thickness of the Buttress Temporary Work Platform Concrete Cap. Approved 6000 psi Central Mix #960PC3Z3 (Submittal Item #TZ1010-033001A10) will be used for the instrument protection slab. Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Pouring a 2' thick instrument protection slab in lieu of the 1' thick concrete slab shown on Drawing GT-5102 is acceptable.

Central Mix #960PC3Z3 is acceptable for use in the instrument protection slab.

The reinforcing steel configuration shown on Section A is acceptable. The bars may be shifted to clear the soldier piles and the instrument locations.

Block-outs shall be placed in the slab for the instruments as noted on GT-5102. Contractor to coordinate locations of block-outs with Arup field staff.

The protection slab shall be extended as noted on the attached sketch.

T-0215 **BSE - Diagonally Cut Unforeseen Piles at Grid Line 33.5 J** **Closed** **08/17/2011** **08/27/2011** **08/17/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2103, Specification Section 02 41 19, and attached photos

BBII has extracted four (4) unforeseen piles at GL 33.5 J. Three (3) piles had an average length of 45' long. However, one (1) of these piles appeared to have 20' diagonally cut out of it at the bottom (see attached Photo 3). Another pile was only 23' long and appeared to have broken off underground (see attached Photo 1). BBII has concerns that lengths of pile may still remain in ground and will be an obstruction to the CDSM shoring wall installation. Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to specification 31 56 13, 3.2, A, which states, "The Contractor shall construct a trench along the entire alignment of the shoring wall and the cut-off walls and remove any obstructions that might be encountered along the alignment of the walls. The depth and width of the trench shall be that required to remove the obstructions from the path of the shoring wall."

T-0215.1 **BSE - Diagonally Cut Unforeseen Piles at GL 33.5 J** **Closed** **08/23/2011** **09/02/2011** **08/30/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0215 and RFI #T-0177, Sheet GT-2103 and Specification Section 02 41 19

As the top of the broken pile is 33' below ground, further trenching to remove this pile is not practical. BBII proposes following the procedure approved by RFI T-0177 (BBII 0126) to extract this pile. In the future, BBII proposes this to be the standard procedure when a broken or lost pile presents an obstruction to the CDSM Shoring Wall installation and needs to be extracted.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup takes no exception to the use of the method described in RFI T-0177 for this pile.

T-0216 **BSE - Revised Buttress Shop Drawings For Record Only** **Closed** **08/18/2011** **08/28/2011** **08/19/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference attached revised CIDH Rebar Shop Drawings, RFI#T-0184, T-0203, T-0205 and T-0206

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup takes no exception to the shop drawings included with the RFI.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per discussions at the TG03 BSE Design Team meeting on 8/17/2011, it was agreed by Adamson and ARUP to confirm the finalized buttress rebar cage shop drawings via RFI because the shop drawings have already been approved in a previous submittal TG0300-320 / TA1020-032001A05.

Attached are the revised shop drawings that incorporate all the changes that were agreed upon in the referenced RFIs. Please confirm that these shop drawings accurately reflects all changes made.

Note that review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Contractor is responsible for quantities and dimensions which shall be confirmed and correlated at the job site; checking for deviations between the field, submittal and the contract documents alerting Arup of same; fabrication processes and techniques; the means and methods of construction; coordination of its work with that of all other trades; and performing all work in a safe and satisfactory manner. This review does not modify contractor¿s duty to comply with the contract documents and any action shown is subject to requirements of plans and specifications. This review does not increase Arup's standard of care or scope of services and contractor shall immediately notify Arup of any intent to make a claim based on this submittal.

T-0217 **BSE - Buttress Shift To The East** **Closed** **08/24/2011** **09/03/2011** **08/30/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0183.1, Sheet GT-2201, Specification Section 31 63 29, and attached sketch

The sketch that was included in the Engineer's response to RFI T-0183.1 shows Buttress rows S, T, U, V, and W, shifting 4" to the west. Per discussions with the Engineer in the 8/17/2011 TG03 BSE Design Team Meeting, all parties agreed that the 4" shift is not needed. Please confirm that the 4" shift is not necessary and that it is acceptable to install the Buttress shafts per the attached drawing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response: The proposed northings and eastings shown are acceptable.

T-0217.1 **BSE - Maximum Allowable Spacing Between Buttress Shafts** **Closed** **03/23/2012** **04/02/2012** **03/23/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Becho requests for ARUP to provide the maximum allowed spacing between the tangent shafts East of P-Line and West of C-Line. Allowing such changes could possibly help mitigate Buttress Shaft schedule.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The tangential spacing of the buttress shafts may be increased from 4 inches to 8 inches east of PLine and west of C-Line.

Contractor to verify that this does not impact the trestle pile locations / design.

Contractor to verify tht there is adequate equipment clearance at 301 Mission.

Contractor to provide revised northing and easting coordiantes in a sketch similar to that incuded in RFI 217 for tie-down location coordination.

T-0217.2 **BSE - Increased Spacing Between Buttress Shafts east of P-line** **Closed** **04/12/2012** **04/22/2012** **04/19/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: BBII Spacing Sketch

Per the Engineer's response to RFI T-0217.1, "The tangential spacing of the Buttress shafts may be increased from 4" to 8" east of P-line and west of C-line." Please confirm that the revised Buttress footprint and coordinates shown on the attached sketch is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Confirmed except that the coordinates for shafts A1 and A3 do not appear to reflect RFI 217.1.

T-0218 **BSE - Timber Lagging Underneath Instrument Protection Slab** **Closed** **08/29/2011** **09/08/2011** **08/31/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0214, Sheet GT-5102, and Specification Section 31 56 13

Contract drawing GT-5102 indicates timber lagging being installed underneath the 2' section of the concrete

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response: It is acceptable to omit the lagging below the protection slab as proposed. Contractor to take appropriate measures to keep any loose material below the slab from falling into the excavation.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

instrumentation protection slab between grids 27 and 30. The original construction sequence foresaw the instrumentation protection slab being installed prior to the adjacent buttress work platform. BBII is planning on pouring the instrumentation slab and the adjacent buttress work platform monolithically on Wednesday 8/31/2011, which makes the timber lagging support redundant.

Please confirm that the timber lagging shown on contract drawing GT-5102 is not required to be installed. Your prompt response is highly appreciated.

T-0219 **BSE - Abutments At Temporary Bridges** **Closed** **08/29/2011** **09/08/2011** **09/15/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13 and Submittal TG0300-201 Item TZ1030-015313A09 response comments (attached)

DPW review comment #40 on the temporary bridge submittal (TZ1030-015313A09, package TG0300-201) calls for BBII to "provide concrete approach slabs similar to Caltrans." URS comment #32 on the submittal states that "Approach slabs are recommended. After seismic event, it is important that emergency vehicles still have access to these temporary bridges."
Concrete approach slabs are not included as a requirement in the temporary bridge specifications. Please advise if approach slabs must be added to the scope of the temporary bridges.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per spec 01 53 13 and David Fyfe's response included herein, approach slabs are necessary items required to provide a coordinated design and a completely functional temporary bridge.

2011-09-14 - David Fyfe

SF DPW requires approach slabs.

T-0219.1 **BSE - Approach Slabs At Temporary Bridges** **Closed** **11/04/2011** **11/14/2011** **11/16/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference RFI#T-0219 and Specification Section 01 53 13

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Comments made by PMPC in across the table

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

On 11/3/11 W/O was informed by PMPC during a temporary bridge coordination meeting that contrary to RFI response T-0219 approach slabs were not required at the (3) temporary bridges.

Please confirm.

discussions shall not be considered as modifying the response to RFI# T-0219. As an added clarification to RFI# T-0219, please note that the permitting agency, SF DPW, has expressed the potential need for use of approach slabs to achieve a package which can be approved by the agency. It is recommended that requirements concerning approach slabs be addressed between the contractor and the permitting agency during the building permit submission of the Temporary Bridges Package.

T-0220 **BSE - Pile Extraction Method For The Remaining Timber Piles At GL 33.5 J** **Closed** **08/29/2011** **09/08/2011** **09/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0188.1, Specification Section 02 41 19, and attached sketch

BBII intends on extracting the remainder of the existing timber piles located at gridline 33.5J/Beale St., using the method approved in T-0188.1, as the piles are located a considerable distance from the 199 Fremont building. This involves extracting piles using the vibratory hammer without a steel casing and backfilling the void with structural pre trench sand. Attached is a drawing indicating the locations of the piles obstructing the CDSM wall. Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We recommend that the procedure for removing the piles east of Beale Street follow the procedure described in our response to RFI T-0146.4 with the exception that backfilling with sand is acceptable. See also answer to RFI T-199.

T-0221 **BSE - Salvage Steel At Temporary Bridges** **Closed** **08/29/2011** **09/08/2011** **09/30/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation Carolina Aguilar

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13 and Submittal TG0300-201 Item TZ1030-015313A09 response comments (attached)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In order to evaluate compliance, additional information is required. Please submit list of all structural steel members that will be used on each of the three temporary bridges. For each structural steel member

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0222	BSE - Temporary Bridge Pier Locations	Closed	08/29/2011	09/08/2011	09/01/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

DPW review of the temporary bridges submittal (TZ1030-015313A09, package TG0300-201) includes comment #8 that states "salvage materials are not acceptable to be used as structural members for the bridges. The temporary bridge specifications do allow for the use of salvage material as follows:

"2. Steel, Salvage Material: Submit coupon tests for mechanical properties and chemical tests for determination of weldability. For steel materials which are recycled from prior Projects (salvaged materials) and are to be incorporated into temporary works, testing shall be performed on a random sampling basis as follows:
a. Where material properties relied upon for design corresponding to minimum yield strength fy=30,000 psi, sampling shall be performed on 5% of each major series of structure element type.
b. Where material properties corresponding to minimum yield strength fy=36,000 psi, sampling shall be performed on 10% of each major series of structure element type.
c. Where material properties corresponding to minimum yield strength fy=42,000 psi or 50,000 psi is used, sampling shall be performed on 20% of each major series of structure element type.
d. Testing performed per subparagraphs above at sampling rates of 5%, 10%, and 20%, respectively, shall be reported to the Owner's Representative in writing. Testing results must satisfy all samples meeting 100% of materials strength requirements for acceptance of salvage materials. If less than 100% of materials tested meet this requirement, then the sampling rate shall be increased. In this event, the sampling rate for retesting shall be subject to review and approval by the Owner's Representative."

Please advise if salvage material is still acceptable per the project specifications.

SUGGESTION:

ANSWER:

listed:

1). Indicate whether the structural steel member consists of new or salvaged material

2). Provide the exact location along the bridge that the steel member is located

3). Provide information on the salvaged material, such as its current condition, when and where it may be inspected by a TJPA Representative, and what its prior use was

4). For each complete temporary bridge, provide the total weight of salvage steel, summarized by element type and usage.

Finally, please provide the weight of total salvaged steel material that will be used at each temporary bridge.

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Specification Section 01 53 13 and Submittal TG0300-201 Item TZ1030-015313A09 response comments (attached)

Temporary bridge review comments (Submittal TZ1030-015313A09, package TG0300-201) call for the end piers on all three bridges to be relocated to avoid interrupting chamfer rebar (see attached markups). With the information provided to BBII in the plans and specifications, there was no indication that this reinforcement must be avoided, nor was there a required clear zone from the shoring wall to the first pier. Please advise if these piers absolutely need to move, or if their current locations can be accommodated. Increasing the span between the abutments and the first pier will have commercial impacts.

Thornton Tomasetti Response: The piers shall not be in conflict with the mat foundation chamfer (chamfer shown in plan and section S1-3201). Minimum clear distance from face of pier to bottom edge of chamfer shall be 2'-0."

8/31/2011 George Metzger
ARUP Response: Arup takes no exception to the referenced pier locations that are shown in the submittal.

T-0223 **BSE - Temporary Bridge Pedestrian Barrier Height** **Closed** **08/30/2011** **09/09/2011** **09/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13 and Submittal TG0300-201 response comments (attached)

DPW review of the temporary bridges includes comment #42 that calls for the pedestrian barrier to be designed as a combination railing with a minimum height of 4'-6" while the specifications only call for a 3'-6" barrier. Please advise if the minimum height must be increased to 4'-6".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response to RFI No.T-0223 is provided herein and on attached sketch titled, "Sketch - RFI Nos.T-0223 and T-0228." This attached sketch is a mark-up of BBII's traffic plan figure, "Non-Working Hours, Temporary Bridge Traffic Plan" (submittal package TG0300-204, submittal item TZ1030-015313, page 3 of 6) because this is the latest presentation of the Contractor proposed product.

This attached sketch shows an installation in conformance with current coordination comments completed between the Project and CCSF DPW and SFMTA. Where the handrail/guardrail system occurs separating pedestrian and vehicle traffic, required height equals 3'-6" measured from the top of pedestrian walking surface.

Note, these comments provided on this attached sketch pertain only to RFI Nos.T-0223 and T-0228, a full review and response of Traffic Plan Submittal

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Package TG0300-204 will be finalized and transmitted at a later date.

T-0224 **BSE - Temporary Bridge Deflection and Suspended Utilities** **Closed** **08/30/2011** **09/09/2011** **09/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13 and attached cut sheets

Where utilities transition from direct bury to hanging under the temporary bridges, BBII believes there must be some allowance for deflection to prevent damage to the conduits during a seismic event. Attached are cut sheets for an expansion fitting and deflection fitting that BBII has seen used in combination at bridge transitions. Watertight flexible steel conduit may be an option as well.
Please confirm that all Phase 2 utilities to be suspended below the temporary bridges will include some means of handling bridge deflection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please provide information on the predicted movement and hanger support system such that the condition can be assessed.
Movement direction; lateral or longitudinal?
How much movement is being predicted and at what location?
Are the steel conduits rigidly connected to the hanger supports? Please provide the hanger support design for review.

T-0224.1 **BSE - Temporary Bridge Deflection and Suspended Utilities** **Closed** **09/23/2011** **10/03/2011** **09/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0224, Specification Section 01 53 30, and attached e-mails

The response to RFI T-0224 requested additional information about bridge movements. This information was provided by email to AECOM on 9/9/11. Follow on questions were answered on 9/15/11. Please see the attached email string.

Please provide the make, model, location and quantity per conduit run for all the utilities supported by the bridge

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In reference to the request in RFI T-0224, it has been confirmed that all Phase 2 utilities (Verizon and PG&E) to be suspended below the temporary bridges will include means of handling bridge deflection.

Verizon has indicated the use of O-Z/GEDNEY expansion fittings for rigid steel conduit type EX, or equal. One fitting is proposed on each conduit located along the supported section staggered such that no two are aligned. This design element will be incorporated into construction documents being prepared by Verizon.

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PG&E has indicated the use of O-Z/GEDNEY Expansion fittings for rigid steel conduit type EX, or equal. One fitting is proposed on each conduit located along the supported section staggered such that no two are aligned. This design element will be incorporated into construction documents being prepared by PG&E.

T-0224.2 **BSE - Temporary Bridge Deflection and Suspended Utilities** **Closed** **10/05/2011** **10/15/2011** **10/12/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI T-224, 224.1, CR T-017 and Specification Section 01 53 30

The response to RFI T-0224.1 The 4" EX model is not readily available (8 week lead time), however the very similar AX is. Please see the attached data sheets for each model and advise if this revised material is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response from PG&E (attached) is as follows:

The type AX expansion fitting for 4" steel conduits is an acceptable substitute for the type EX expansion fitting. Type BJ external bonding jumper will still be required.

T-0224.3 **BSE - Temporary Bridge Deflection and Suspended Utilities** **Closed** **10/24/2011** **11/03/2011** **11/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference CR T-017R1 and Response to RFI#T-0224.2

BBII have been advise that only 1 deflection fitting is required on per rigid conduit run, between gridline A and J.

The PG&E construction drawings attached, indicate (highlighted in yellow) 2 locations A and J line; request expansion fitting to be used.

It is not clear from the drawings attached if PG&E require 1 deflection fitting per conduit run as previous stated in RFI # T-0224.2. Please confirm only 1 deflection fitting per

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1 deflection fitting per conduit run as described in RFI # T-0224.2 is required.

Submit proposed configuration of deflection fittings coordinated with temp bridge supports and other bridge elements for review.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

conduit run between GL A-J is required by PG&E.

Please provide a drawing showing, the deflection fitting configuration for individual conduit runs.

T-0225 **BSE - CDSM Alignment Conflict With Existing Utilities GL 1-J** **Closed** **08/31/2011** **09/10/2011** **08/31/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2231, Specification Section 31 56 13, and attached photo

BBII laid out centerline of the CDSM on Gridline 1 and Gridline J. The centerline of the shoring indicates that the existing utilities PG&E/Water is in direct conflict with the location of the CDSM shoring wall. These utilities appear to be capped east of the centerline.

Drawing D-2231 BSE contract states "Unless specified otherwise all utilities have been cut and capped outside the limits of the work by Transbay Transit Centre program relocation of utilities"... Please see photos attached.

Please confirm the status on the relocation of these utilities.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Shoring wall changed per the response to BSE RFI-0017. Basis of the AECOM Plans is the pre RFI-0017 shoring wall. We are planning to issue revisions to TJPA early next week to address the shoring wall change.

T-0225.1 **BSE - CDSM Alignment Conflict With Existing Utilities GL 1-J** **Closed** **08/31/2011** **09/10/2011** **09/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0225

The response received for RFI #T-0225 does not provide the requested information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Status is as follows, RUP ASI-015 has been created to address the relocation of utilities impacted by the change to the CDSM shoring wall resulting from BSE RFI-0017. ASI-015 was issued for pricing and implementation on 9/8/11.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

---
Question from RFI#T-0225

Reference Sheet D-2231, Specification Section 31 56 13, and attached photo

BBII laid out centerline of the CDSM on Gridline 1 and Gridline J. The centerline of the shoring indicates that the existing utilities PG&E/Water is in direct conflict with the location of the CDSM shoring wall. These utilities appear to be capped east of the centerline.

Drawing D-2231 BSE contract states "Unless specified otherwise all utilities have been cut and capped outside the limits of the work by Transbay Transit Centre program relocation of utilities"... Please see photos attached.

Please confirm the status on the relocation of these utilities.

T-0225.2 **BSE - CDSM Alignment Conflict GL 1-J - PG&E Vault Utility Conflict on Natoma** **Closed** **09/12/2011** **09/22/2011** **09/14/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0017, #T-0225.1, Sheet U-1110, and Specification Section 31 56 13

Please refer to RFI No. T-0017, which revised the southwest corner of the CDSM shoring wall alignment. Your attention is also directed to the utility drawing U-1110, which depicts the utilities to be abandoned and the ones to be protected in place with respect to the old CDSM wall alignment. According to U-1110, the PG&E vault on Natoma Street shall be protected in place. However, based on the field layout, the PG&E vault on Natoma St. is in conflict with the southwest corner of the CDSM wall alignment, which was revised per RFI No. T-0017.

Based on BBII's field measurements, the clearance between the PG&E vault on Natoma St. and the centerline

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on provided field information, the existing PG&E MH is located 11" clear of the CDSM shoring wall revised per resonse to RFI T-0017, please clarify what/where the conflict is.

If safety is of concern while working in close proximity to a live PG&E MH, coordinate with PG&E through TJPA's Representative to de energize the existing MH prior to and during CDSM wall construction. Existing PG&E MH 1348 exists to provide power to 90 Natoma. 90 Natoma is owned by the TJPA and is currently vacant.

The 36" demarcation line mentioned in the RFI is an arbitrary scope division line established between the RUP and BSE packages to differentiate abandon utility removal between the two packages.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

of the CDSM wall is 29", which is less than the 36" typical distance required by the contract plans as the minimum clearance between the demarcation lines and the CDSM wall alignment.

BBII requests the PG&E vault on Natoma St. to be relocated to a safe distance outside the work limits of the revised CDSM wall alignment.

T-0225.3 **BSE - CDSM Alignment Conflict GL 1-J - PG&E Vault Utility Conflict on Natoma** **Closed** **10/03/2011** **10/13/2011** **10/20/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0225.2, Sheet D-2231 and ASI-015, Specification Section 31 56 13, and attached photos and sketch

BBII in discussions with DND will be able to work adjacent to PG&E vault #1348, referenced in RFI #T-0225.2.

BBII is currently considering removing the concrete over pour on the vault, de-energizing the power in the vault and installing CDSM Shoring Wall without relocating the vault.

Please confirm it is acceptable to remove any concrete over pour within 20" from the centerline of CDSM wall.

Also, please confirm it is acceptable to install CDSM Wall at the location close to the PG&E vault #1348 without potential damages.

Please refer to the attached photos

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is noted that prior to receiving the response to this RFI, the contractor installed CDSM panel #W0001 adjacent PG&E vault 1348 without chipping away the concrete over pour. A PG&E standby crew was present and observed the installation.

It is understood that during this work the outside tooth of auger may have broken off during install of piles in this area. W/O to confirm there is no damage to Vault #1348 due to CDSM work

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T-0226 **BSE - Revised Instrument Protection Slab** **Closed** **09/02/2011** **09/12/2011** **09/06/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference RFI #T-0214 and attached sketch

Per discussion with the engineer, it is acceptable to install the Instrument Protection Slab per the attached sketch and the following revisions to RFI T-0214:

1. W-beams cut so that the top mat will be resting on them.
2. #6 rebar thru the W-beam, tie-wired to the top mat in lieu of Nelson Studs.

Please confirm.

ARUP Response:

This is acceptable.

T-0227 **BSE - Buttress Anti-Washout Admixture** **Closed** **09/02/2011** **09/12/2011** **09/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01 and attached Rheomac product data

Per the recommendations from both Becho and Central Concrete, BBII would like to propose the use of an Anti-Washout Admixture, Rheomac UW 540 in all submitted and approved Buttress Primary and Secondary Shaft Concrete. Please review and confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
This is acceptable.

T-0228 **BSE - 6-inch Sidewalk At Temporary Bridges** **Closed** **09/02/2011** **09/12/2011** **09/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13 and attached sketches

During a temporary bridge traffic coordination meeting on 8/29/11, SFMTA suggested the use of a 6" elevated

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response to RFI No.T-0228 is provided herein and on attached sketch titled, "Sketch - RFI Nos.T-0223 and T-0228." This attached sketch is a mark-up of BBII's traffic plan figure "Non-Working Hours, Temporary Bridge Traffic Plan," (submittal package TG0300-204,

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sidewalk curb in lieu of the crash rated pedestrian barrier. The crash rated barrier would be relocated to the outside edge of the temporary bridge.

BBII believes this layout has numerous advantages and resolves some concerns as well:
- SFMTA brought up the obvious concern of damage to side mirrors with tall barriers directly adjacent to the traveled lanes. To compensate for this, drivers will shy away from barriers in already tight lanes. Moving the barrier alleviates this problem on one side of the road.
- A barrier between the sidewalk and traveled lanes has a blunt ends that pose a hazard (see sketch). Relocating the barrier eliminates this hazard.
- The area formerly occupied by the pedestrian barrier (approx 14" in width) can be used as extra traveled width for vehicles (distributed per SFMTA's discretion)
- An elevated sidewalk curb will make trestle crossings feel like a typical street crossing, especially for the visually impaired. As such, pedestrians will be more likely to treat the trestle intersection as a
true signalized intersection.

SFMTA has indicated that the elevated sidewalk is preferred over a pedestrian barrier. Attached are several sketches of the proposed layout - please confirm this is acceptable.

submittal item TZ1030-015313, page 3 of 6) because this is the latest presentation of the Contractor proposed product.

This attached sketch shows an installation in conformance with current coordination comments completed between the Project and CCSF DPW and SFMTA. As shown on attached Sketch - RFI Nos.T-0223 and T-0228, a handrail/guardrail providing separation of pedestrian and vehicle traffic is required.

Note, these comments provided on the attached sketch pertain only to RFI Nos.T-0223 and T-0228, a full review and response of Traffic Plan Submittal Package TG0300-204 will be finalized and transmitted at a later date.

T-0229 **BSE - Concrete Time of Discharge Requirement** **Closed** **09/06/2011** **09/16/2011** **09/08/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification 03 30 01

Per SS 03 30 00, 3.3.D, "Discharge of concrete shall be completed within 1½ hours or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing water to the cement and aggregates or the introduction of the cement to the aggregates."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
This is acceptable.

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Per ACI 301 (Section 4.1.2.9), "Time of discharge - When it is desired to exceed the maximum time for discharge of concrete permitted by ASTM C 94C/ 94M, submit a request along with a description of the precautions to be taken."

BBII is planning for discharging concrete with the following precautions: As concrete hydration can be controlled for a maximum of 10 hours, BBII suggests discharge of concrete shall not be restricted to 1½ hours. In order to sustain the requirements of Becho, BBII purposes to replace the 1½ hour time restriction to 3 hours with an 80° F maximum temperature requirement.

Please confirm that this discharging plan is acceptable for Buttress Concrete per ACI 301.

T-0230 **BSE - Concrete Sampling Location** **Closed** **09/12/2011** **09/22/2011** **09/16/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 03 30 01

Per the Pre-Construction Buttress Shoring Phase 1 DFOW Meeting on 8/30/2011, BBII proposes to conduct concrete sampling of Central Concrete Trucks in Lot P in lieu of Zone 4 due to site congestion and safety concerns. In order to sustain the requirements of Becho and to provide safe disposal of concrete for sampling, BBII purposes Lot P for all concrete sample inspections.

Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor shall bear all additional costs associated with changing the concrete sampling location from Zone 4 to Lot P (including, but not limited to, additional inspectors)

2011-09-15 George Metzger

ARUP Response:

Arup takes no exception to sampling the trucks in Lot P provided the concrete is sampled and tested in accordance with the ASTM Standards. For example, in accordance with the Standards, sampling of the concrete shall be obtained after 10 % and before 90 % of the batch has been discharged from the truck.

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T-0231	BSE - 24-Hour Inspection of Buttress Shoring Shaft	Closed	09/12/2011	09/22/2011	09/12/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Kevin Chiu

REQUEST:

Reference Specification Section 03 30 01

Per the Pre-Construction Buttress Shoring Phase 1 DFOW Meeting on 8/30/2011, Becho requests that a TJPA representative be available to observe the 24 hour Buttress Shoring drilling operation and to perform any/all specified inspections. This includes: verticality of shaft, shaft cleanliness, verification of bed rock, concrete and rebar. In addition, Becho requests that a TJPA representative be available 24 hours of the day to provide Becho/BBII with full support and contact information of all available representatives.

Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA Representatives will be available to inspect the work as specified in 31 63 29 (referenced in 03 30 01).

T-0232	BSE - Buttress Red Color Concrete	Closed	09/15/2011	09/25/2011	09/16/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Specification Section 03 30 01 and Sheet GT-2201

Per discussion with the Engineer, it is acceptable to place red color concrete in Secondary Buttress Shafts C3 and C5 in lieu of Primary Buttress Shafts C2, C4, and C6.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable.

T-0233	BSE - Internal Bracing Design Coordination with Structural Design	Closed	09/20/2011	09/30/2011	09/23/2011	Potentially	☐

From: Webcor/Obayashi Joint Venture Masashi Kojima
Co-Author:
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Specification Section 31 55 00

The BSE submittal TG0300-542.1 Internal Bracing Design was approved by TJPA and the fabrication will start as soon as permission is issued by the City.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti's response is pending receipt and review of revised internal bracing submittal.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

T-0233.1 **BSE - Internal Bracing Design Coordination with Structural Design** **Closed** **09/23/2011** **10/03/2011** **10/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI #T-0233 and TJPA Transmittal No. 140-02321

The SFDBI-approved Internal Bracing drawings and related calculations was sent to W/O on 9/22/2011 as TJPA Transmittal No. 140-02321 - Approved Internal Bracing for Shoring Wall Permit Drawings, and available in Constructware.

RFI #T-0233 Question:

The BSE submittal TG0300-542.1 Internal Bracing Design was approved by TJPA and the fabrication will start as soon as permission is issued by the City.

Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT is currently reviewing the Internal Bracing Design Documents, which was received by TT on 09/29/2011.

TT's comments to this document will be marked up on the Internal Bracing Design Document.

T-0233.2 **BSE - Internal Bracing Design Coordination with Structural Design** **Closed** **10/05/2011** **10/15/2011** **10/10/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI #T-0233, T-0233.1, Submittal TG0300-542 and TJPA Transmittal No.140-02321.

W/O is in receipt of TJPA Submittal Package #TG0300-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti will be issuing comments to Transmittal #140-02321.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

542 for the internal bracing from which W/O is proceeding per specification section 01 13 00.
W/O is aware the design team did not review and comment on Transmittal #140-02321 (DBI's comments) to Submittal Package #TG0300-542.
Please confirm no design team changes or comments will be made to Submittal Package #TG0300-542 rather future trade packages.

----- RFI #T-0233.1 Response -----
TT is currently reviewing the Internal Bracing Design Documents, which was received by TT on 09/29/2011.
TT's comments to this document will be marked up on the Internal Bracing Design Document.

----- RFI #T-0233.1 Question -----
The SFDBI-approved Internal Bracing drawings and related calculations was sent to W/O on 9/22/2011 as TJPA Transmittal No. 140-02321 - Approved Internal Bracing for Shoring Wall Permit Drawings, and available in Constructware.

----- RFI #T-0233 Response -----
Thornton Tomasetti's response is pending receipt and review of revised internal bracing submittal.

----- RFI #T-0233 Question -----
The BSE submittal TG0300-542.1 Internal Bracing Design was approved by TJPA and the fabrication will start as soon as permission is issued by the City.
Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

T-0233.3	BSE - Internal Bracing Design Coordination with Structural Design	Closed	10/10/2011	10/20/2011	10/10/2011	Potentially ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference RFI #T-0233, T-0233.1, T-0233.2, Submittal TG0300-542 and TJPA Transmittal No.140-02321.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI contains a statement, not a question and is inappropriate for the RFI process.
RFI T-0233.2 will remain closed but unresolved until

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This RFI shall not be closed until the information / confirmation received from the Design team.

----- RFI #T-0233.2 Response -----
Thornton Tomasetti will be issuing comments to Transmittal #140-02321.

----- RFI #T-0233.2 Question -----
W/O is in receipt of TJPA Submittal Package #TG0300-542 for the internal bracing from which W/O is proceeding per specification section 01 13 00.
W/O is aware the design team did not review and comment on Transmittal #140-02321 (DBI's comments) to Submittal Package #TG0300-542.
Please confirm no design team changes or comments will be made to Submittal Package #TG0300-542 rather future trade packages.

----- RFI #T-0233.1 Response -----
TT is currently reviewing the Internal Bracing Design Documents, which was received by TT on 09/29/2011.
TT's comments to this document will be marked up on the Internal Bracing Design Document.

----- RFI #T-0233.1 Question -----
The SFDBI-approved Internal Bracing drawings and related calculations was sent to W/O on 9/22/2011 as TJPA Transmittal No. 140-02321 - Approved Internal Bracing for Shoring Wall Permit Drawings, and available in Constructware.

----- RFI #T-0233 Response -----
Thornton Tomasetti's response is pending receipt and review of revised internal bracing submittal.

----- RFI #T-0233 Question -----
The BSE submittal TG0300-542.1 Internal Bracing Design was approved by TJPA and the fabrication will start as soon as permission is issued by the City.
Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

the requested information is provided.

Webcor/Obayashi Joint Venture

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T-0233.4	**BSE - Internal Bracing Design Coordination with Structural Design**	**Closed**	**10/10/2011**	**10/20/2011**	**10/11/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference RFI #T-0233, T-0233.1, T-0233.2, Submittal TG0300-542 and TJPA Transmittal No.140-02321.

When will the Design team provide the information / confirmation for RFI #T-0233?

----- RFI #T-0233.3 Response -----
This RFI contains a statement, not a question and is inappropriate for the RFI process. RFI T-0233.2 will remain closed but unresolved until the requested information is provided.

----- RFI #T-0233.3 Question -----
This RFI shall not be closed until the information / confirmation received from the Design team.

----- RFI #T-0233.2 Response -----
Thornton Tomasetti will be issuing comments to Transmittal #140-02321.

----- RFI #T-0233.2 Question -----
W/O is in receipt of TJPA Submittal Package #TG0300-542 for the internal bracing from which W/O is proceeding per specification section 01 13 00.
W/O is aware the design team did not review and comment on Transmittal #140-02321 (DBI's comments) to Submittal Package #TG0300-542.
Please confirm no design team changes or comments will be made to Submittal Package #TG0300-542 rather future trade packages.

----- RFI #T-0233.1 Response -----
TT is currently reviewing the Internal Bracing Design Documents, which was received by TT on 09/29/2011. TT's comments to this document will be marked up on the Internal Bracing Design Document.

----- RFI #T-0233.1 Question -----
The SFDBI-approved Internal Bracing drawings and related calculations was sent to W/O on 9/22/2011 as TJPA Transmittal No. 140-02321 - Approved Internal Bracing for Shoring Wall Permit Drawings, and available in Constructware.

----- RFI #T-0233 Response -----

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Comments will be returned by 14 October 2011.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Thornton Tomasetti's response is pending receipt and review of revised internal bracing submittal.

----- RFI #T-0233 Question -----
The BSE submittal TG0300-542.1 Internal Bracing Design was approved by TJPA and the fabrication will start as soon as permission is issued by the City.
Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

T-0233.5 **BSE - Internal Bracing Design Coordination with Structural Design** **Closed** **10/17/2011** **10/27/2011** **10/18/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Reference RFI #T-0233, T-0233.1, T-0233.2, T-0233.3, T-0233.4, Submittal TG0300-542 and TJPA Transmittal No.140-02321.

Per response to RFI#T-0233.4, comments from the design team were to be received by October 14, 2011.

Please provide the design team comments and confirmation for RFI #T-0233.

----- RFI #T-0233.4 Response -----
Comments will be returned by 14 October 2011.

----- RFI #T-0233.4 Question -----
Reference RFI #T-0233, T-0233.1, T-0233.2, Submittal TG0300-542 and TJPA Transmittal No.140-02321.

When will the Design team provide the information / confirmation for RFI #T-0233?

----- RFI #T-0233.3 Response -----
This RFI contains a statement, not a question and is inappropriate for the RFI process. RFI T-0233.2 will remain closed but unresolved until the requested

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Comments have been sent to W/O previously, see attached transmittal.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

information is provided.

----- RFI #T-0233.3 Question -----
This RFI shall not be closed until the information / confirmation received from the Design team.

----- RFI #T-0233.2 Response -----
Thornton Tomasetti will be issuing comments to Transmittal #140-02321.

----- RFI #T-0233.2 Question -----
W/O is in receipt of TJPA Submittal Package #TG0300-542 for the internal bracing from which W/O is proceeding per specification section 01 13 00.
W/O is aware the design team did not review and comment on Transmittal #140-02321 (DBI's comments) to Submittal Package #TG0300-542.

Please confirm no design team changes or comments will be made to Submittal Package #TG0300-542 rather future trade packages.

----- RFI #T-0233.1 Response -----
TT is currently reviewing the Internal Bracing Design Documents, which was received by TT on 09/29/2011. TT's comments to this document will be marked up on the Internal Bracing Design Document.

----- RFI #T-0233.1 Question -----
The SFDBI-approved Internal Bracing drawings and related calculations was sent to W/O on 9/22/2011 as TJPA Transmittal No. 140-02321 - Approved Internal Bracing for Shoring Wall Permit Drawings, and available in Constructware.

----- RFI #T-0233.0 Response -----
Thornton Tomasetti's response is pending receipt and review of revised internal bracing submittal.

----- RFI #T-0233.0 Question -----
Reference Specification Section 31 55 00
The BSE submittal TG0300-542.1 Internal Bracing Design

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

was approved by TJPA and the fabrication will start as soon as permission is issued by the City.

Please confirm the design was acceptable to permanent structural designer (Thornton Tomasetti) and incorporated into their design for future trade packages.

T-0234 **BSE - Buttress Shaft Post Pour Settlement** **Closed** **09/20/2011** **09/30/2011** **09/22/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201 and Specification Section 31 63 29

Please be informed that an uncontrolled settlement was observed at Buttress shaft C2, which was poured on Sunday 9/18/2011. The settlement led to the formation of a 13' deep unstable hole on the buttress working pad. After consulting with ARUP representative and W/O's field personnel, BBII/Becho Inc. decided to fill the newly formed hole with concrete to mitigate the settlement risk of the working pad. Additional concrete was poured into the 13' deep hole on Monday 9/19/2011.

Please confirm that pouring additional concrete/CLSM will be considered as an acceptable method, if such settlements will occur during the future installation of the upcoming buttress shafts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The Contractor shall place concrete (or CLSM, where specified) up to the gound surface as specified in the Contract Documents. The Contractor shall employ the means and methods necessary to properly measure the level of concrete before concrete placement is terminated, and to verify that the material at the ground surface is quality concrete rather than the concrete / water / concrete plug mixture that rises to the surface in advance of the quality concrete due to the tremie method. If some consolidation of the concrete occurs over time, then the top of the shaft shall be filled to the ground surface with conrete (or CLSM, where specified).

T-0235 **BSE - Unforeseen Reinforced Concrete Slab at GL 7.5 J** **Closed** **09/20/2011** **09/30/2011** **09/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2210, Specification Section 31 56 13, attached photos and sketch

While excavating a pre trench at gridline 7.5J close to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This slab is a Cal Trans slab and is located within TJPA property limits. The slab is not unknown and is shown in the set of Drawings listed in Section 00-03-31 Part 1.2.D.6 (Existing Condition: Buildings and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Natoma Street, BBII uncovered an unforeseen reinforced concrete slab. This slab is 3ft thick, uncovered at grade and a section of it is in the direct line of the proposed CDSM wall. Indicated at this location in drawing D-2210 are grade beams and pile caps which BBII assumes will be encountered under this mat slab. However, this slab is not indicated on contract drawing D-2210.
The concrete shown in contract survey sheet 5 appears to be a concrete driveway and it does not indicate the 3ft thick concrete slab that BBII are encountering. Measurements taken in the field also indicate a larger area than this. The attached photos and drawing indicate the scale of this obstruction. It is required to be removed.

Please advise if this is acceptable.

Improvements - Drawings "Project Plans for Construction from Figth Streeet to Beale Street, 2000" (168 pages). Removal of the slab is acceptable.

9/22/2011 - George Metzger

ARUP Response:

It is Arup's understanding that the slab encountered is a remnant of the Caltrans seismic retrofit work of the previous, now-demolished bus ramps. Therefor, removal of the portion of the slab within the shoring wall alignment is acceptable, but ownership of the property on which the slab is located should be confirmed by the PMPC / TJPA.

T-0236 **BSE - Unforeseen Concrete Section Found at Grid Line 1E** **Closed** **09/22/2011** **10/02/2011** **09/26/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2210 (attached), Specification Section 31 56 13, and attached photos

While DND were drilling at panel 28 and 29 on grid line 1E at the locations of piles 839-843, an unknown section of concrete was encountered. The concrete was found at a depth of 9.5ft. The quantity of concrete is unknown at this point. The concrete is not indicated on contract drawing D-2210. It is in direct conflict with the CDSM shoring wall and must be removed. Shown below [attached] are photos of the debris removed from the excavation.

Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Contract documents require obstacles that may interfere with installation of the CDSM wall to be removed by pre-trenching. The concrete shall be removed.

T-0237 **BSE - Bridge Welding Code** **Closed** **09/26/2011** **10/06/2011** **10/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification 01 53 30

Temporary Bridge Specification 01 53 13 (1.6H) requires the welding qualifications for the bridges to be in accordance with AWS D1.5 "Bridge Welding Code", however BBII's design was based on AWS D1.1 "Structural Welding Code" as specified in General note 3.2-A4.2 of Sheet SH-0100. BBII and their designer felt AWS D1.1 is more applicable for the temporary bridge structure for the following reasons:

- The members that make up BBII's temporary bridge consists of readily available standard grade mill rolled shapes, comprised of a variety of base metals (A36, A53, A572, A992, A500, and A252) which are joined by simple prequalified joints (fillets). D1.1 provides the flexibility to weld all of these base metals in any combination utilizing prequalified procedures, since they are all in the same base metal group. D1.5 only allows prequalified welding of A709 plate material only.

- BBII's temporary bridge structure contains structural tubing (piers and rails), which D1.5 does not cover tubing

- The bridge as designed has short spans and very simple welded connections. All welds shown are fillet welds (mostly single pass). Additionally there are no complete penetration welds as are typically seen on steel plate girder bridges.

- The life span of these temporary bridges are less than 5 years

- The temporary bridge's intended use and the site specific geometry restraints led to a steel framing design much more similar to a structural steel building than to a typical Highway bridge. The steel columns with angle cross-bracing, and the girders and cap beams as detailed are similar to building with columns and floor beams.

The submittal review did not take exception to the general note specifying D1.1. therefore please confirm it is acceptable to submit weld procedures and welder qualifications per AWS D1.1 as specified by the bridge's Engineer of Record.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ISI Commentary:

"We have been requested to provide a commentary/discussion regarding AWS D1.5-2002 Bridge Welding Code in reference to RFI #T-0237. The scope of our discussion is limited to an interpretation of D1.5 and not to the design/use of welded temporary steel bridges. The RFI's request by BBII is to accept WPSs/WQTRs to AWS D1.1 rather than to AWS D1.5.

Base Materials: Although D1.5 specifies A709 as the approved steel, it also states that other steels may be approved by the Engineer [D1.5 Section 1.2.2].

Fillet Welding: The RFI states all welding to be fillet welds (mostly single pass). D1.5 state fillet welding may be performed, within given limitations, without performing WPS qualification tests [D1.5 Section 2.8.1].

Welder Qualifications: We note that the qualification requirements for both groove and fillet welds are similar between AWS D1.1 and D1.5 with exception of base metal restrictions.

Engineer's Discretions: See Commentary Sections C1.1.2, C1.2.1 and the "Forward" section of D1.5 Pgs. vii and viii."

9/26/2011 - David Fyfe

See Specification Section 01 53 13, 1.6H;

Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.5/D1.5M, "Bridge Welding Code - Steel."

2. AWS D1.4/D1.4M, "Structural Welding Code - Reinforcing Steel."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This does not allow use of AWS D1.1. Comply with paragraph 1.6H requirements.

T-0237.1 **BSE - Bridge Welding Code** **Closed** **10/03/2011** **10/13/2011** **10/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference RFI #T-0237 and Specification Section 01 53 30

RFI #T-0237 was returned to W/O with two responses regarding the temporary bridge welding. Please clarify which is the governing response or provide one coordinated response.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response provided in RFI T-0237 by David Fyfe, dated 9/26/2011, is the governing response.

T-0238 **BSE - Zone 1 CDSM Crossing Over Existing Wall** **Closed** **09/26/2011** **10/06/2011** **09/29/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5101, Specification Section 31 56 13, attached photos and sketch

Please address the following information request from BBII's sub contractor DND:

"The new CDSM shoring wall crosses an existing CDSM wall at 2 locations. Following CR T-005B, both of these crossings are perpendicular to the existing CDSM wall, as shown in Note 1 on GT-5101. Note 1 shows the new wall making a jog to avoid hitting the beams of the existing CDSM wall. The detail shown on contract plan GT-5101 is constructible only if the existing CDSM wall was built exactly as shown, without any room for construction tolerances for both the new and existing wall. Instead of trying to install this section of the CDSM wall according to the detail shown on GT-5101, which would potentially cause damage to the CDSM equipment, DND proposes to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable provided there is no additional cost to the TJPA.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

remove the existing CDSM beams that are in conflict. The contract plan GT-5101 shows two CDSM panels to jog around the existing beam and one offset panel parallel to the new wall.

DND's proposed solution would eliminate the 2 panels in the jog but still maintain the additional offset panel parallel to the wall line. This additional offset panel would act as insurance so a seal is maintained through any deflection caused by the hard in-situ soil mix. This would present a potential cost savings to the project (due to 2 less panels being installed), providing the conflicting beams can be successfully removed.

DND has mobilized a drill rig with an auger to this area to pre-drill the wall prior to the removal of beams. This will substantially reduce the amount of vibration that will be required to remove the beams. DND proposes to utilize the same method at the other wall crossing near Natoma Street. Is this proposed method of removing the existing beams and soil mixing through the existing CDSM wall acceptable?"

T-0239 **BSE - Rebar Cages for Deeper Buttress Shafts** **Closed** **09/28/2011** **10/08/2011** **10/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-5202 Detail 12, RFI T-0216, and Approved Rebar Shop Drawings

The approved rebar cages per RFI T-0216 are sized for 241' deep shafts. Rebar cages for shafts C-1 and M-1 have already been released and fabricated. Note that the depth after airlifting of shafts C-2 and M-2 have been 247' and 252.7' respectively. Please advise on how to proceed with the installation of the cages for shafts C-1 and M-1 and with the fabrication of the rest of the cages assuming these shafts extend beyond planned depth.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Detail 12/GT-5201 requires the reinforcing steel to be placed up to 1'-0" below the top of the concrete. The top of concrete is shown on GT-5201. Longitudinal bar extensions shall be spliced as needed to achieve this. If the top of the fabricated cage is within 3'-0" of the top of the concrete, no bar extensions are required.

The 24" tie spacing shown on the shop drawings at the setting cage (Drawing SC1) is acceptable at the bar extensions.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0240	BSE - Demo AT&T Duct on Natoma at Second	Closed	09/29/2011	10/09/2011	10/07/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheets U-1110, D-2231, ASI-015, Specification Section 31 56 13, attached email and BBI RFI 222

It was discovered on 9/27/2011 while performing the utility demo for the revised shoring wall alignment (TG03 BSE CR T-005B) issued in ASI 15 that the abandoned AT&T line servicing the demolished buildings on Natoma was never fully abandoned by AT&T. According to the attached email from Huan Huynh of AT&T, AT&T was never notified that these lines needed to be abandoned due to the revised shoring wall alignment of the Transbay Project.

Please confirm when CDSM Shoring Wall can be installed in the area. Currently, BBII is installing the CDSM Shoring Wall on line 1 and the confirmation of the line abandonment is required as quickly as possible to avoid any project delay.

Please also refer to the attached BBI RFI 0222 for this issue

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AT&T has de-energized the abandon telecommunications lines referenced in the RFI. Proceed with CDSM wall installation at this location following demolition of existing utilities per RUP contract documents and execution of a USARs.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0241	BSE - Brick Wall at GL 2, J Line In Conflict With The CDSM Wall	Closed	09/29/2011	10/09/2011	10/07/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13 and attached meeting minutes and photos

The brick wall remaining from the 580 Howard building, at grid line 2 J, is protruding into the CDSM wall limits, as noted in BBII's previous RFI #203 (The question was responded by TCCO at the job site meeting on 9/6/2011. Refer to the attached meeting minutes). While attempting to remove, BBII has discovered that the fence and patio pavement are founded on this remaining portion of brick wall. This condition does not allow for the removal of the wall without damage to the fence and patio.

Please provide direction on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The 580 Howard courtyard fencing can be removed from the corner because it is owned by TJPA and located on TJPA property.
2. After removal of this corner section of fence, a section of temp fence and signage shall be placed on TJPA property.
3. During demolition of this corner section the temp fence and signage will likely have to move in towards the 580 Property as a safety precaution.
4. The demolition and backfill shall be expedited so that the courtyard can be restored (preferably same day).
5. The temp fence section and signage shall be moved back on to TJPA property until CDSM wall is complete.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

6. The permanent fence will be reinstalled on TJPA property as soon as possible after CDSM wall installation at the corner.

CR T-5B excluded this scope. These costs will be issued under forthcoming CR.

T-0242 **BSE - Becho's Request For Rock Classification Data** **Closed** **09/29/2011** **10/09/2011** **10/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201, Specification Section 31 63 29, and attached letter from Becho

Please find attached BBII's sub-contractor Becho's letter that requests the following information:

"... during the drilling of buttress shaft M4 rock socket, at a depth of approximately 250 feet below ground level, Becho encountered rock formations of unmeasured hardness. At a depth of 250 feet, Becho's steel grab, used for rock drilling, fractured under the increased stress. Please see attached photos. The incident occurred between the hours of 9.30 am and 10.00 am on Wednesday, 09.28.11. BBII immediately notified W/O and called for an emergency meeting to discuss the hardness of the rock formation and the status of drilling. During the meeting, Arup confirmed and accepted the 250 foot depth to be adequate and sufficient to stop the rock socket drilling. Immediately, following Arup's confirmation at 11.09 am, Becho proceeded to clean the remaining rock debris from the bottom of the shaft and prep for air lifting operation. The total down time recorded as a result of the incident is 68 minutes, not including adjustments of airlift, tremie pipe and repair of grab.
Please advise, if shafts are to be drilled and excavated to new depths not indicated on plan GT-5201. Becho will need to mobilize additional non-conventional drilling equipment to successfully achieve depths currently being directed to drill to (255 ft). In addition, Becho requests that a soil report be generated containing borings pertaining to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Regarding the question: "Please advise, if shafts are to be drilled and excavated to new depths not indicated on plan GT-5201": the specifications note "Depth of piers shown on drawings may vary due to field conditions based upon TJPA's Representative¿s assessment of actual conditions."

The Geotechnical Data Report and the Prototype Test Report, included in the Contract Documents as references, provide sufficient information for the Contractor to plan and execute their work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Zone 4 Buttress drilling operations which include rock classification, strength and location."

T-0243 **BSE - Emergency Exit at 530 Howard GL 10 J** **Closed** **09/29/2011** **10/09/2011** **10/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13 and attached sketch

Pre-trenching and CDSM wall installation at the rear of the 530 Howard building will have an impact on the accessibility to the emergency exit at that location. In order for the pre trench and the CDSM wall installation to safely proceed past this location, the rear exit must be closed for 1-2 days for each operation. The attached drawing indicates the location of the emergency exit and its proximity to the CDSM wall.

Please confirm if this is acceptable. BBII is available to meet with the property owner to coordinate this work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Coordination with 530 Howard property management cannot be obtained without specific dates. Once the dates are known, coordinate through Jason Padavich (jpadavich@tcco.com 510-453-8598).

T-0244 **BSE - Request for Additional Geotechnical Data Pertaining To Zone 4** **Closed** **09/29/2011** **10/09/2011** **10/11/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet GT-2201 and Specification Section 31 63 29

Please address the following information request from BBII's sub contractor Becho Inc.:

"... for each of the shafts completed and under construction, Becho has excavated deeper than the elevations shown for boring logs. Becho is requesting soil samples, boring logs, torque requirements, skin friction values, and rock strengths be provided for these depths.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The elevation of the bedrock is highly variable as indicated by the contour plan in the Geotechnical Data Report. It is for this reason that the specifications include the requirement: "Excavation and drilling equipment: shall have adequate capacity, including power, torque, and down thrust to advance the temporary casing to the depths shown on the drawings, excavate a hole of both the maximum diameter and to a depth of 20 percent beyond the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(Currently 254 ft below elevation +14.00).

The requested information is similar to what was provided up to the depths of 234 and 237.5 feet in the "Final Geotechnical Data Report" prepared by Arup dated February 2010, and "Prototype Test Program and Monitoring During Construction of Drilled Shafts" prepared by Arup dated May 2010. Becho requests this information for drilling beyond the depths specified in the Geotechnical Report."

depths shown on the plans."

T-0244.1 **BSE - Becho Request for Buttress Field Logs** **Closed** **03/23/2012** **04/02/2012** **04/24/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BECHO formally requests to obtain the Daily Field Logs from every ARUP field engineer/geotech/geologist, TJPA representative involved with the Buttress Shaft work. More specifically, field notes/logs from engineers and TJPA representatives involved with the field data collection, sample collection and inspection process. Becho requests the Daily Field Logs for the following dates:
- September 12th 2011 through October 20th 2011
- February 22nd 2012 through Today

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The TJPA Representative Daily Field Logs are attached to the Field Observation Reports that are posted to and available in Constructware.

T-0244.2 **BSE - Becho Request for Buttress Field Logs Follow-Up** **Closed** **04/18/2012** **04/28/2012** **04/24/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

After reviewing Constructware as directed in RFI T-0244.1; W/O is unable to locate ARUP field reports for the dates between 9/12/11-9/30/11. Please advise as to the location of the aformentioned documents.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Arup on 04/10/2012, "The first report begins on October 1, 2011. Prior to that, Arup was not documenting the project progress and deficiencies through these field reports."

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0244.3	**Becho's 3rd Request for Arup's Field Logs**	**Closed**	**07/24/2012**	**08/03/2012**	**08/01/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ernie Cortez **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Becho formally requests to obtain any and all documentation Arup has for logging and documenting soil samples retrieved from the Buttress shafts starting 9/12/2011 thru 10/1/2011, including all documentation pertaining to quality control as specified in section 31.63.29.3.8.B.

Reference attached Becho Letter BI-0244.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor is to refer to Constructware or the ISI special inspection website for the available field logs/test reports/field samples. All necessary parties have access to these sources.

T-0245	**BSE - Ground Conduits detail for PG&E phase 2 works on First Street**	**Closed**	**10/05/2011**	**10/15/2011**	**10/12/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference: CR No. T-017 - BSE - First Street Phase 2 Utility Relocation

For the installation of the PGE 6" and PGE 4" GRS conduit between the CDSM walls, is grounding of the PGE conduits required? If so, please provide grounding details/requirements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response from PG&E (attached) is as follows:

Yes and at both ends of the conduits. As a suggestion, we would propose to tie into the bonding jumpers of the AX and EX expansion fittings with a bare copper solid stand #6 copper wire. The #6 wire can be either soldered or crimped to the bonding jumper. All the #6 ground wires would then be brought together and connected to a single bare #2/0 copper wire. The 2/0 copper ground wire would then be routed and cadwelded to the nearest I-beam that support the traffic bridge.

If it is not possible to attached the #6 copper wire to the AX and EX grounding jumpers, we will require a separated bonding clamp that can be used in a wet or dry location.

One grounding point is usually sufficient but I am asking for grounding at both ends of the steel conduits in case one ground is accidentally cut.

T-0246	**BSE - PG&E Sweep Radius Requirements**	**Closed**	**10/10/2011**	**10/20/2011**	**10/11/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference CR T-017.

(The attached drawings provided at the PG&E / BBII / Verizon Coordination Meeting on 9/29/2011) refer to 10ft radius elbows and bends. PG&E standards refer require 6ft radius elbows and bends. Please confirm radius requirements for 6" conduit installation for the Phase 2 utility on First Street.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per PG&E (see attached), the requirement is 10ft radius.

T-0247	BSE - Proposed Corrective Action Plan for Sunken CDSM Soldier Piles	Closed	10/10/2011	10/10/2011	10/12/2011	Potentially ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 31 56 13

Please address the following information request from BBII's sub contractor DND:
"As of to date, the following three soldier piles have sunk below grade during their placement into the CDSM wall.
- Beam # 154 installed on 09.08.11
- Beam # 631, installed on 09.29.11
- Beam # 602, installed on 10.01.11

DND was unable to recover those piles and set them to their plan elevations without disturbing the adjacent beams that were already in place. To mitigate this issue, DND proposes to conduct the below course of remedial action:
1) Wait until mass excavation commences. Excavate with caution the locations, and determine the top elevation of the sunken beams.
2) Provide this information to the Engineer for evaluation.
3) Implement corrective action based on Engineer's evaluation. Possible corrective measures are:
a. No action necessary. The strength of the CDSM material may be sufficient to support the unreinforced depth.
b. Install lagging between the adjacent beams above the top of the sunken beam.
c. Splice a beam on the top of the sunken beam and backfill with low strength concrete.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The proposed sequence is not acceptable. The Contractor shall submit a corrective action plan at least four weeks prior to the start of excavation for evaluation by the TJPA's Representative. The plan shall assume a range of depths to the top of the sunken beam and shall describe the impact on the waling and strutting plan. The plan shall be location-specific and shall include a drawing indicating the location of the sunken beam.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please advise, if the proposed course of remedial action and/or any of the three possible corrective measures are acceptable."

T-0247.1 **BSE - Proposed Corrective Plan for the following Sunken Solider Piles** **Closed** **01/10/2012** **01/20/2012** **01/12/2012** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Attached Corrective Action Plan

Message:
Please find attached BBII's proposed corrective plan for the following sunken solider piles:
1. Pile #59, Notice #47, Vela Issue #J-00007.
2. Pile #154, Vela Issue #J-00001.
3. Pile #602, Vela Issue #J-00008.
Please approve and or comment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The written RFI above is not a clear question and is not acceptable. The content in the attached document should be provided in a submittal, not an RFI. GC to conform to comments in RFI 247.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0248	**BSE - First St. Verizon Utilities Relocation**	**Closed**	**10/10/2011**	**10/20/2011**	**01/04/2012**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 53 13

Attached is an as-built sketch of Verizon utilities potholed and located along First St. on 10/4/10. These utilities were originally scheduled to be relocated during phase two to allow for CDSM installation and subsequently temporary bridge construction. BBII has learned that in an effort to save time, the TJPA is considering leaving the utilities in their current locations and working around them. As shown on the attached section of the First St. temporary bridge, the Verizon utilities will be in direct conflict with the temporary bridge structure. Please confirm these utilities will be relocated as planned to allow for installation of the CDSM shoring wall and temporary bridge.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Yes, they will be relocated. This RFI was related to the lateness of Verizon relocation and the idea of installing CDSM wall with Verizon still in place. Due to delays in starting PGE is now taking longer than Verizon so that PGE work governs duration and we no longer have to install last CDSM wall with Verizon in place to save time on bridge installation on First Street."

Solcom has a start date of 1.03.2012 and a finish date of 2.29.2012.

T-0249	**BSE - Pavement lights at the rear of 580 Howard**	**Closed**	**10/10/2011**	**10/20/2011**	**10/12/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Specification Section 31 56 13 and CR T-005B.

There are two lights located on the ground inside the boundary fence at the rear of 580 Howard. The lights are located 4ft away from the brick wall (which is due to be demolished) as shown the attached photos. A preliminary investigation indicates that the lights are de-energized. Please confirm that access to the property's electrical system will be available to confirm that the lights are de-energized.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Access to 580 Howard cannot be obtained at this time.

See attached, "RFI T-0249 Field Photos 11 Oct 2011," which shows that as of 2PM on 11 OCT 2011 the lights have been removed and wires capped by an unknown entity.

Contractor to verify status of electrical lines by alternate means.

T-0250	**BSE - Soil Classification of South West Area of the Work Site**	**Closed**	**10/13/2011**	**10/23/2011**	**11/03/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Specification Section 01 13 50 and Treadwell & Rollo site maps (attached)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Treadwell and Rollo response-

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII needs the soil classification listed and mapped for the lot between Natoma Street and Howard Street, and between Gridline A to Gridline 10.
Please see the attached Treadwell & Rollo's Site Mitigation Map of the Soil Classification for the area in question.

"See attached site plan, figure 1. Where encountered, up to 4' of State of California hazardous waste exists."

T-0251 **BSE - Drawings To Coordinate Trestle Pile Locations** **Closed** **10/13/2011** **10/23/2011** **10/14/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

During the 10/12/11 trestle submittal review meeting, statements were repeatedly made with regard to incrementally complete underground drawings in which to coordinate trestle pile locations. As of 10/13/11, W/O has not received any future package documents accompanied with the direction to coordinate with the TG03 documents. If such documents are available please make available the entire series to include, however not limited to, A, S, M, E, & P.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The question being asked is unclear. Please rephrase the question and resubmit the RFI.

T-0251.1 **BSE - Drawings To Coordinate Trestle Pile Locations** **Closed** **10/14/2011** **10/24/2011** **11/03/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

RFI T-0251 original inquiry:
During the 10/12/11 trestle submittal review meeting, statements were repeatedly made with regard to incrementally complete underground drawings in which to coordinate trestle pile locations. As of 10/13/11, W/O has not received any future package documents accompanied with the direction to coordinate with the TG03 documents. If such documents are available please make available the entire series to include, however not limited to, A, S, M, E, & P.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti Reply:

"See attached PDF files SKS-0130 through SKS-0137 for exclusion zones for trestle and pin pile locations, per requested additional TT review. W/O to review for constructability. Submit updated pile locations for review.

Note:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

RFI T-0251.1 Clarification to RFI T-0251:
The TG03 package was executed with limited documents in which to coordinate future packages with. Please provide all documents the TJPA requests BBII coordinate the TG03 package with and to.

As it pertains to structural columns (round/pill/rectangle/ect.) please provide the minimum clear distance to trestle pile penetrations in the mat slab so BBII may coordinate.

Should there remain any ambiguity in the inquiry above please indicate the nature of misunderstanding.

Penetrations through the Mat slab shall not intersect the hatched zones in the attached sketches. Note hatched zones at and near columns and at side walls.

Any Lower Concourse level penetrations within 3'-0" on either side of primary column lines (e.g. 1.4, 2, ..., 35, V, W, X) will impact construction of primary concrete moment frame beam elements; coordinate with W/O. Block outs in moment frame beams shall not encroach into the hatched zones in the attached sketches.

Coordinate interruptions of lower concourse slabs and secondary framing beam elements with W/O.

24" Diameter columns located 21'-3" west of GL 23 and 21'-3" east of GL 23 along GL D.8 and E.2, extending between mat level and lower concourse level.

Verify construction sequence of Light Column at GL 23 in relation to cross lot bracing and re-bracing; coordinate with W/O.

Penetrations that interrupt Mat reinforcement shall not be placed closer than 3xDia clear spacing between penetrations, with Dia = larger diameter of two adjacent penetrations. Penetrations are those causing interruptions of mat reinforcement in the structure in its final condition. Note especially conflict between pin pile 22 and trestle pile 107 (GL 9), trestle piles 18 and 103 (GL 10), and temporary bridge piers close to pin piles 13 and 14 (GL 34)."

Adamson Associates Note: "The additional A, S, and MEP documents you requested are currently in design progress and the information is not availble at this time."

T-0251.2	**BSE - Drawings To Coordinate Trestle Pile Locations - "No Pin Pile Zone" at Lowe**	**Closed**	**11/04/2011**	**11/14/2011**	**11/14/2011**	**Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** **Answered By:**

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Turner Construction Compan Gary Krutsch — Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On 11/3/11 W/O was informed by PMPC during an Access Trestle Criteria Discussion meeting with URS and W/O that PMPC will request Thornton Tomasetti to provide "no pine pile zone" sketches for the Lower Concourse Level similar to the Sketches provided through RFI T- 251.1 response. Also, PMPC is requesting Thornton Tomasetti to provide criteria of concrete connection details around pin piles/trestle piles for the future Below Grade Concrete Package.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT Response:

The response to RFI T-0251.1 and the associated sketches included criteria for Lower Concourse. As stated in the response, BBII is to coordinate the Lower Concourse framing elements with Webcor. Although the block out at the lower concourse level is a means and methods issue, TT further clarifies the implication of the block out if it affects the primary moment frames along the column grids as noted below:

The primary moment frame girders at the Lower Concourse level are to act as a brace when the Second level braces are removed as shown in the GT drawings. If a complete moment frame girder is not poured due to conflict with the trestle piles, those bracing elements immediately adjacent to that girder will need to remain in place until the blocked-out beam is re-cast and reaches its design strength. Alternatively, BBII shall establish another method of temporary bracing and submit for review.

Concrete connection details around pin piles/trestle piles are included in the Below Grade Package.

T-0251.3 **BSE - Drawings To Coordinate Trestle Pile Locations - "No Pin Pile Zone" at Lowe** **Closed** **11/28/2011** **12/08/2011** **12/13/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Adamson Associates, Inc. George Metzger **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

Reference RFI #T-0251.2

So W/O may coordinate as requested in RFI response T-0251.2 please provide a drawing that depicts the column configurations, dimensions, and minimum clearance requirements, for both the platform and concourse levels. This information is required to locate trestle piles and internal bracing struts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached SKS-0138 through SKS-0178 (41 total) for requested
information. Note that these sketches are in progress, for reference only,
and subject to change.
Refer to RFI T-0263 response regarding minimum clearance requirements.

T-0252 **BSE - Buttress Rebar Cage Length Adjustment** **Closed** **10/19/2011** **10/29/2011** **10/24/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference RFI #T-0216, #T-0239, Sheet GT-2201, Specification Section 31 63 29, and attached sketch

Per the response to RFI T-0239, BBII needs to extend the length of rebar cages to accommodate buttress shafts that are deeper than 240'. The exact length of the rebar cage cannot be known until the drilling of the adjacent shaft. Due to this uncertainty, and the long lead time required to fabricate cages with varying lengths, BBII proposes to fabricate all rebar cages to a pre-extended length of 260'.

Once the depth of the adjacent shaft is known, the final length of the rebar cage will be adjusted by cutting the top of the rebar cage and the CSL tubes to the desired length. The length of the bottom "structural cage" section that consists of 24 Ea. vertical rebars will remain unchanged at 186'. The length of the top "setting cage" section that consists of 8 Ea. vertical rebars will be adjusted as described above. Please refer to the attached documents and the original shop drawings for the "structural cage" and the "setting cage" details.

BBII proposes to accommodate this change at no additional cost to TJPA beyond the bid item quantity payment per drilled shaft lengths.

Please advise, if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The proposal is acceptable with the following notes. Detail 12/GT-5201 requires the reinforcing steel to be placed up to 1'-0" below the top of the concrete. The top of concrete is shown on GT-5201. Longitudinal bar extensions shall be spliced as needed to achieve this (as noted on the sketch; attached). If the top of the fabricated cage is within 3'-0' of the top of the concrete, no bar extensions are required.

The 24" tie spacing shown on the shop drawings at the setting cage (Drawing SC1) is acceptable at the bar extensions.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0253	**BSE - Trestle Design Criteria Confirmation**	**Closed**	**10/19/2011**	**10/29/2011**	**11/01/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran
Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Kevin Chiu

REQUEST:

Reference Attachment 3 of Exhibit A of the TG03 Bid Package and attached memo from PB&A

Pursuant to the trestle design meeting held on October 12, 2011, Balfour Beatty Infrastructure Inc.' (BBII) requests clarification regarding their interpreted design criteria of the Temporary Access Trestle

As the only Contract document regarding the Trestle,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

PMPC repsonse per Roger Rothenburger, 11/01/11:

"1. The RFI process is not the appropriate venue to "review the provided information and confirm whether or not BBII's design criteria is appropriate." The RFI requested at the October 12, 2011 meeting was to request clarifying instructions to specific perceptions of conflict between Exhibit A - Attachment 3 and Specification Section 01-53-13 (Temporary Bridges)

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Attachment 3 of Exhibit A of the TG030 Bid Manual has the following instructions:

In the second sentence of the second paragraph, the following statement is made, "For the design criteria for the Access Trestle, the Contract Documents and applicable standard shall be referred to." The next sentence states, "All requirements in the Temporary Bridge Specification in the Contract Documents, Section 01 53 13, shall apply to the Access Trestle."

Attachment 3 goes on further to provide very specific design load conditions and structural elements (i.e. Deck & barrier) that contradict the requirements of the Temporary bridge Spec Section 01 53 13. Based on the more "Trestle Specific" requirements of Attachment 3 and the interpreted function, being for construction use and not public use, of this type of temporary works structure, BBII and its Engineering Team arrived at the criteria /(basis of design) described in the attached memo from PB&A. This document was included with BBII's original design submittal; however for this RFI BBII has expanded some of the explanations.

Please review the provided information and confirm whether or not BBII's design criteria is appropriate for the Temporary Access Trestle.

2. As for the design criteria, the fourth sentence of "Exhibit A - Attachment 3" is explicit; "All requirements in the Temporary Bridges Specification in the contract Documents, SECTION 01 53 13, shall apply to the Access Trestle." This would include the requirement in Section 01-53-13 Part 1.3.A.1 (Temporary Bridges - Performance - Design Loads) stating the use of seismic design load for 475 year earthquake (earthquake with 10% probability of being exceeded in 50 years),

3. Among other criteria, wood decking material, "wheel stops, hand rails, special working access, etc listed in the balance of Attachment 3 modify the requirements in Section 01-53-13 and are not contradictory.

4. Attachment 3 does not address crash barriers or lateral bracing, among other criteria, which would defer to section 01-53-13. (Temporary Bridges)

5. PMPC recommends a small group meeting of the constructing parties to discuss the technical details to meet as many requirements as possible for BBI to get approval for Zones 1 and 2 and proceed with the Access Trestle work in a timely manner."

T-0253.1 **BSE - Trestle Design Criteria Follow-Up** **Closed** **11/21/2011** **12/01/2011** **12/02/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Gary Krutsch

Answered By: URS Corporation David Fyfe

REQUEST:

Reference RFI#T-0253, Attachment 3 of Exhibit A of the TG03 BSE Bid Package, Specification Section 01 53 13, and attached memo from PB&A

Follow up to RFI T-0253 and the meeting held 11/16/11

As noted in the 11/16/11 meeting, the cross lot bracing "struts" are supported by the Trestle substructure and analysis requires limiting trestle deformations to be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

If the Access Trestle is designed to resist the full 475 year earthquake design requirement with all response being elastic (R=1), then the Access Trestle system is not subjected to inelastic deformation for the design event. If the design is additionally shown to be capable of sustaining significant overload (no connection failures, no weld failures, no member failures, remaining stable under loading corresponding to at least two times the required design load, or

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

compatible with the allowable strut deflections (approximately 2"). As a result the "push over" analysis as required by the AASHTO Seismic Design Criteria "SDC" (requirement of bridge spec 01 53 13) is not applicable. This was discussed in detail during the 11/16 meeting and it was concurred that due to unique structural configuration and deflection requirements, an alternate analysis method other than the SDC would be required. Discussions were had that a site specific elastic analysis using the 475 year seismic loads that is controlled by the deflection limits of the cross lot bracing would be necessary. Please confirm that a "push over" type analysis of SDC will not be required for the trestle and that the attached detailed Design Criteria (and analysis method) is acceptable.

(W/O added clarification)
BBII believes the site specific analysis would demonstrate the trestle substructure will not deform greater than 2" however the trestle superstructure will deform greater than 2".

corresponding to a ductility demand requiring R=2), then a pushover analysis is not necessary to verify performance. If there are questions raised regarding if this is sufficient, then the response could be demonstration that the system remains fully stable without connection or member failures at a load level corresponding to the deterministic earthquake load corresponding to the maximum event capable of being delivered by the earthquake fault system at the project location. If the design presented is in accordance with the above, then URS would be able to assist with technical engineering discussions to validate this design approach to the City of San Francisco during the building permitting process.

Further clarification: The procurement specification requires an integrated model capturing interaction between the Cross Lot Bracing and the Access Trestle, note the Cross Lot Bracing is not a component against which the trestle reacts but the Cross Slot Bracing delivers load to the Access Trestle. This behavior must be captured with sufficient accuracy and within all project criteria.

If another alternative is proposed that meets all required design criteria at all structure elements, including contractor teams identified maximum allowable deflection of 2 at the Cross Lot Bracing, URS takes no objection to the contractor pursuing this potential design alternative.

T-0254 **BSE - Modified CDSM Installation Plan for Verizon Lines at First St.** **Closed** **10/20/2011** **10/30/2011** **11/01/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification Section 31 56 13 and attached sketches from PMPC

W/O received the modified CDSM Installation plan for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The minimum overlap of columns and panels defined in specification section 31 56 13 shall be satisfied full

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Verizon lines at First St. without the relocation of the lines from PMPC as the attached.
Please confirm the plan is acceptable for CDSM Shoring Wall Designer (ARUP).

depth on each side of the obstruction.

The Contractor's means and methods, e.g., rig type, lowering the Verizon lines and protecting the Verizon lines, have not been reviewed as this is the Contractor's responsibility.

Since the RFI was submitted by the Contractor, we assume that the subcontractor doing the work, DND, has reviewed and approved the proposed methodology, including the "Plate Sealing Detail".

The efficacy the "Plate Sealing Detail" will need to be demonstrated in the field. If used, the plate should be applied to the excavation - face of the steel beam flange rather than behind the flange and removed when it is time to apply the permananent waterproofing.

T-0255 **BSE - Verizon Spacing Requirement on First Street (Phase 2 Utility Installation)** **Closed** **10/21/2011** **10/31/2011** **10/31/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference

BBII have commenced the PG&E Phase 2 installation on First Street, in order to co-ordinate the PG&E utility locations and the future Verizon phase 2 utility indicated on the attached drawing. The attached drawing was issue to BBII in the field, please confirm this drawing has been co-ordinated with the PG&E construction drawings.

BBII require the following:
- Provide a profile/section drawing indicating accurate clearances between PG&E and Verizon,
- Include (Verizon) Trench dimensions, on First Street for the phase 2 installation.
- Site meeting with Verizon representative to discuss Verizon configuration.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Verizon has prepared preliminary design drawings for their Phase II work and is in the process of coordinating with PG&E.

As indicated on RUP Sheet U-4005, the intent of the Phase II utility relocations is such that utilities of different proprietor are to be separated by 1' min.

Coordinate with TJPA's Field Representative (Turner) to arrange a site meeting with Verizon to discuss Verizon's configuration.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0256	**BSE - CR T-018 Design Omissions**	**Closed**	**10/21/2011**	**10/31/2011**	**11/03/2011**	**Potentially**	☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference CR T-018

Neither the original albeit incomplete CR T-018 dated 9/21/11 or the flurry of subsequent email clarifications furnished the following design omissions required to complete the CR T-018:
1. Emergency egress signage requirements?
2. Lighting: Location, lumen, schedule, and if emergency lighting is required?
3. Gates & crash bar requirements?
4. Although the driveway design was not provided until 10/20/11, no dimensions were provided and there are proximity conflict(s) with the fire hydrant relative to the vent & DI.

Please provide and or remove from scope so the contractor may complete the work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Emergency egress signage is not required by Contractor.

2. Lighting: Relocate the two portable street lights installed under EBi contract and connected overhead to the Streetlight circuit on Natoma as shown on EBi demolition drawing D-1084 (NOTE This circuiting was approved by BLHP (Robert Kawano and Roman Muros BLHP 415 - 554-1688. Light #1 install midway along the north south K Rail fence @ 540 Howard. Light #2 install midway of K Rail fence at 580 Howard. Owners of both properties have installed lighting at their exit doors.

3. Gates and Crashbars are no required at this time - install 10 foot saw horse barricade with signage Private Property - No Trespassing.

4. Driveway curb cut for 540 Howard will be 12 feet wide, with the centerline placed midpoint between the Fire Hydrant and sidewalk fresh air vent. Curb cut per DPW standard.

T-0257	**BSE - Request to Sonic Caliper 20 feet from Projected Bottom of Rock Socket**	**Closed**	**10/24/2011**	**11/03/2011**	**10/31/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Please address the following information request from BBII's sub contractor Becho Inc.:

"... Becho would like to start performing Sonic Caliper analyses within 20 feet of the projected final bottom elevation of the shaft(s) to expedite the "Drill, Place, Pour" process. In order to continue the Buttress Drilling Operation without interruptions, Becho would like to utilize the hours between 1am - 6am to perform the Sonic Caliper test. For example, if Becho anticipates the completion of shaft at 10am, it would be beneficial to perform the Sonic Caliper test during the hours of 1am - 6am. This allows crews to prep, setup and perform the airlift process without having to wait for Becho engineers

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger's response is limited to the first sentence of this RFI which states, "... Becho would like to start performing Sonic Caliper analyses within 20 feet of the projected final bottom elevation of the shaft(s) to expedite the "Drill, Place, Pour" process." Acceptance of permissible work activities between 1am-6am will come in the form of a TJPA Night Noise Permit. Please be sure to include the proposed work activity on the Night Noise Permit application.

10/27/2011 - George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

to test the shaft(s) during normal hours of operation, thus expediting the "Drill, Place, Pour" process.

Please advise, if it is acceptable.

Arup Response:

This is acceptable.

T-0258 **BSE - Demolition Status of Pile Cap at GL 33.5** **Closed** **10/27/2011** **11/06/2011** **12/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet D-2213 (attached) and Specification Section 02 41 19

The underlined sections of Notes A and B state that pile caps have already been removed. This area clearly includes the pile cap at GL 33.5.
However, Note C implies that the pile cap at GL 33.5 was not removed.

Please confirm that the existing pile caps have already been removed within the "triangle" line boundary shown on drawing D-2213.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing pile caps at GL 33.5 have not been removed.
CR to follow

T-0259 **BSE - Request for approval of alternate backfill compaction inspection method** **Closed** **10/31/2011** **11/08/2011** **12/01/2011** **Potentially** ☐

From: Webcor Construction LP Masashi Kojima **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Specification Section 32 12 17

With regard to the areas of non-conforming backfill compaction inspection i.e. FCR #TCB-00246: In lieu of contemporaneous compaction inspection by ISI, BBII has proposed the methodology described in attached letter #4225-000-00238. Please confirm the alternate methodology, assuming acceptable results, would suffice to meet the contract requirements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed methodology will be evaluated pending receipt of the test results.

Submit test results for review and evaluation.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0260	**BSE - D.I. Installation at Natoma Street and First Street**	**Closed**	**11/01/2011**	**11/11/2011**	**11/08/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference Sheet U-3012 and attached sketch

BBII carried out an investigation of the active catch basin around the perimeter of the BSE project; and has a concern regarding the street elevation relative to the flow line on Natoma Street between GL 10-17.

The flow line directs surface water in a North East direction towards First Street. The only active catch basin at the intersection of Natoma and First Street is CB #305, which is approximately +8.5" higher than the currently decommissioned CB located at the intersection of Natoma St and First St (see sketch attached).

Noted during the last rain fall, surface water was directed to the decommissioned catch basin at the North East corner of Natoma Street and First Street intersection, BBII recorded approximately 6" of standing rain water accumulating at First Street and Natoma intersection. Please note that existing catch basin was decommissioned during the new sewer installation on First Street (see attached mark up drawing).

BBII recommends 2 options to control rain water from outside the BSE work area:
A) modify the flow line on Natoma Street to direct the flow toward CB # 305,
B) Install a new catch basin and connect it to the existing lateral connection CB # 305 to the combine sewer system, or connect directly to the existing MH.

Please advise on TJPA method to prevent water collecting on First Street.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The referenced decommissioned CB"at the north west corner of Natoma and First streets was to be protected in place per RUP documents.

AECOM understands that the CB was decommissioned by BSE contractor in accordance with D-2230 Detail 1 and not RUP as claimed. D-2230 Detail 1 states (E) sewers, MH(s) and CB(s) are to remain active until construction of (N) CDSM perimeter shoring wall along northern end of site.

The decommissioned CB is within the excavation site. In accordance with the specifications referenced in the Recommendation section (i.e. 011560 STORMWATER POLLUTION PREVENTION, EROSION AND SEDIMENT CONTROL) submit for review storm water control plans indicating contractor's method of addressing storm water entering the site in accordance with 011560 1.4.

T-0260.1	**BSE - D.I. Installation at Natoma Street and First Street**	**Closed**	**11/28/2011**	**12/08/2011**	**12/02/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI #T-0260 and Sheet U-3012 (attached)

RFI response T-0260 does not address the issue request

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor shall control storm water in accordance with specification 01 15 61 and approved submittals.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

information, to resolve the surface water from outside the BSE project. BBII recommend a catch basin should be installed at the corner of Natoma and First Street, as part of BBII storm water control. The catch basin will need to be installed at the low point of Natoma Street, across from CB #305.

BBII request confirmation and approval to install a catch basin at the above location. Also confirm the lateral from the new catch basin can discharge directly into SSMH#305.

Per field walk by Turner on 12/02/11 and prior to return of this RFI, it was observed that the contractor had installed measures that appear to have resolved this issue.

T-0261 **BSE - Natoma Street Trestle Access** **Closed** **11/01/2011** **11/11/2011** **11/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Gary Krutsch

Answered By: Turner Construction Comp Kevin Chiu

REQUEST:

Reference CR T-018, Specification Section 01 53 13, BBI Letter #4225-000-0145 (attached), and attached sketch

CR T-018 included drawings for access to the side and rear of 540 Howard St. BBII issued letter 4225-000-0145 in response and included a sketch highlighting a conflict between the proposed building access and the Natoma St. trestle offshoot.

The Natoma St. trestle offshoot was originally specified to span from Grid 11.5 at the center of the excavation to Grid 10 at the edge of excavation. The offshoot was moved further west per [W/O] response to the conflict with 530 Howard St.

The 540 Howard St. building access arrangement as proposed in CR T-018 does not provide sufficient access to the Natoma offshoot (see attached sketch). Please provide direction if the offshoot is to be relocated or eliminated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

W/O shall coordinate the location of the offshoot with its subcontractor(s) such that it does not conflict with other required elements of the project.

If the 540 Howard egress per CR T-018 is an issue, provide W/O's original egress plan (i.e. plan prior to issuance of CR T-018) that was coordinated with the Natoma St offshoot for review.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0262	**BSE - CAD File for trestle/pin pile exclusion zones**	**Closed**	**11/09/2011**	**11/19/2011**	**11/17/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0251.1 and Specification Section 01 53 13

The response to RFI T-0251.1 included a set of sketches showing hatched "exlusion zones" where trestle/pin pile placement is not allowed.
Please provide the CAD file for these sketches for BBII use in coordinating pile locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT Reply:

See attached for requested CAD file for RFI No. T-0262.

T-0262.1	**BSE - CAD File for Micropile Exclusion Zones**	**Closed**	**05/17/2012**	**05/27/2012**	**05/29/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference:
Specification 31 63 33
RFI T-0262

Please provide the CAD file for Micropile "Exclusion Zones," if they differ from the exclusion zones subjected to RFI # T-262.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The exclusion zones provided in response to RFI T-262 do not apply to micropiles (detail 1/S1 - 3003). Please reference IFB - Below Grade package for coordination of micropile layout and submit micropile design and coordinated layout for review by design team via submittal process per Specifications.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0263	BSE - Strut Conflicts to Thornton Tomasetti's comments on the approved Internal	Closed	11/09/2011	11/19/2011	11/17/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI #T-0251.1 and Transmittal No. 140-02329

Subsequent to W/O's receipt of an approved 100% internal bracing submittal and procurement, Thornton Tomasetti's comments in the plans transmitted via Transmittal #140-02329 added both columns & dimensions and revised column configurations relative to the location of the internal bracing struts not otherwise included in the base contract BSE documents. So as W/O may accurately coordinate strut locations in order to mitigate conflicts, please provide the minimum allowable dimension from column to strut.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT's response to RFI No. T-0263:

This is a means and methods topic. GC to coordinate clearance requirements.

T-0264	BSE - Bridge / Trestle Piles in Exclusion Zones	Closed	11/09/2011	11/19/2011	11/18/2011	Potentially	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI#T-0251.1 and Specification Section 01 53 13

BBII is in receipt of the drawings included in RFI T-251.1 that illustrate trestle pile "exclusion zones" where piles cannot penetrate the mat slab. Of the 24 piles that are currently in conflict with the pile exclusion zones, 20 of them can be relocated with relatively minor member changes. The other 4 as indicated in the attached drawings will require significant redesign and re-procurement, especially at the bridges. Can an exception be made at these four locations?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See the attached TT response.

T-0264.1	BSE - Beale St Bridge Pile Conflict (Follow up to RFI T-264)	Closed	01/26/2012	02/05/2012	02/03/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: BBI Marked-Up SKS-0135, SH-3103

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The previous response to RFI T-264 requested BBII move one of the Beale St. Bridge piles 3' west to avoid mat slab reinforcing congestion. BBII has investigated this request and found that the cap beam already has a significant cantilever on the east side of the pile in question. In order to comply with the request to move the pile, we would have to extend the cap beam and support it off the CDSM wall as shown on the attached sketch. Please advise if this is acceptable, otherwise the pile will need to remain in its current position.

This cannot be evaluated properly by Arup without more information regarding the loads on the shoring wall. Contractor shall submit calculations for review. Calculations shall include the load, if any, which will be imposed on the shoring wall due to settlement of the bridge supports.

Note that we have not yet seen the calculations and details for the bridge abutments at the north and south ends of the bridges.

T-0264.2 **Beale St Bridge Pile Conflict (Follow up to RFI T-264.1)** **Closed** **02/08/2012** **02/18/2012** **02/16/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

The response to RFI T-264.1 requested BBII provide the loading that would placed onto the CDSM wall.
This response leads us to believe that the option to leave the pile in the current location was unacceptable.
Please confirm that the pile must be moved and provide a detailed location of where the pile placement would be accepted.
Upon receipt of this information BBII can accurately determine the load to placed on the Wall for Arup's review.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The bridge pier near 35-E must be relocated. See attached SKS-0179 for acceptable range of pier shift.

T-0264.3 **BSE -Bridge-Trestle Piles in Exclusion Zones Beale St** **Closed** **08/13/2012** **08/23/2012** **08/17/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

W/O in in receipt of RFI response T-0264.2 (Exhibit-A).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT will allow the proposed location of the "bent-3" East

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBII is purporting any shift of the "bent-3" East pile West will cause excessive bridge cantilevering to the extent the Beale St. bridge must be reconfigured (less the sidewalk) and relocated (East) atop the CDSM wall.

Since the issuance of the TG03 package a third pit for an oil & sand interceptor appears to have been added in room B2761 reference:
1. TG06 4/P1-3006 (Exhibit-B) room B2761 floor plan
2. TG03 1/S1-2027 & C/S1-3004 (Exhibit-C) for original room configuration
3. TG06 1/S1-2057 & 2/S1-3007 (Exhibit-D) for revised room configuration

Please reference marked-up sheet S1-3007 (Exhibit-E). W/O is unaware of why the bridge pile could not be located 12" off the edge of the sump pit as depicted. The corner of the oil & sand interceptor pit which is shallow and could easily be formed, reinforced, and poured after the bridge pile is removed.

Please advise.

pile along grid E as depicted in Exhibit E (pile is east of the sump pit and the edge of pile is 12" from the east face of pit). Note that a pile in this location will require the pile to be cut off at a lower elevation than the typical detail, which will involve a larger block-out. The mat shall be re-braced at the block-out by TG03. Acceptance of this pile location will result in a Change Order for TG06.

T-0264.4 **BSE - Inquiries with Regard to Proposed Beale St Bridge Atop East CDSM Wall** **Closed** **08/22/2012** **09/01/2012** **08/29/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

On 8/22/12 Beale St. bridge submittal #TG0300-206 was returned to W/O marked not reviewed (Exhibit-A). Upon W/O's
review of BBII's Beale St. bridge design W/O encountered the following inquiries relative to the CDSM wall:

1. BBII's bridge design relies on ARUP's RFI response #T-0209.3 (Exhibit-B). Please confirm ARUP's RFI response #T-0209.3 (Exhibit-C) is applicable as the basis of the design for the Beale St. bridge, given unlike First and Fremont
Streets, the length of the Beale St. bridge is resting atop the East CDSM wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID - SEE RFI T-0305

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2. The decision to allow the North and South bridge abutments to be located atop the CDSM wall was predicated on
the CR #T-025 load testing reference RFI #T-0209.4 (Exhibit-D). Given the testing was performed on different soldier
piles (by others) and differing soil conditions between Zone-1 and Zone-4, is the load capacity derived from the CR #T-
025 testing applicable given the different bridge location and configuration?

3. BBII's Beale St. bridge design relies on resting the length of the Beale St. bridge atop the East CDSM wall. As the
designer of the CDSM wall, does ARUP endorse further loading of the East CDSM wall with the forces imposed by the
Beale St. bridge?

T-0264.5 **BSE - Inquiries Regarding Proposed Beale St Bridge Relative to Below Grade Stru** **Closed** **08/23/2012** **09/02/2012** **08/29/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference: TG0300-206 Beale St. Bridge Structural Design

On 8/22/12 Beale St. Bridge submittal TG0300-206 was returned to W/O marked not reviewed. In lieu of piers the proposed bridge relies on the eastern shoring wall for structural support along the bridge. As a result, the design utilizes the additional capacity of the internal bracing to restrain lateral loads imposed by the bridge.

Upon W/O's review of BBII's Beale St. bridge design W/O encountered the following inquiries relative to below grade structure:

-Do the below grade foundation walls as designed have the additional capacity required to support the lateral loads

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID- SEE RFI T-0305

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

imposed by the proposed Beale St. bridge?

-Will the below grade foundation walls be required to achieve additional strength prior to removal of re-bracing as a result of the additional laterals loads in which they are subjected by the proposed Beale Street bridge?

T-0264.6 **BSE - Pedestrian Connection Across the Construction Excavation at Beale St.** **Closed** **08/23/2012** **09/02/2012** **08/29/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference: TG0300-221 BBI - Temp Bridges - Civil and Drainage Plan - Beale St

Contrary to specification section 01 53 13.1.2.A BBII's proposed Beale St. bridge utilizes an on-grade sidewalk for pedestrian travel though the parcel "Lot-N". Please confirm this is acceptable and that no other pedestrian connection across the construction excavation at Beale St. will be required for the entire required life of the bridge.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID - SEE RFI T-0306

T-0264.7 **BSE - Beale Street Bridge Layout** **Closed** **10/03/2012** **10/03/2012** **10/11/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per TCCO Request RFI being submitted in lieu of a submittal:

Based on the response to Webcor Submittal No. TG0300-206.1, BBII has shifted the bridge superstructure west between the grid lines 34 and 34.8 beams as directed. This necessitates the installation of 2 rows of 5 bridge columns as shown in the attached drawings. The west row will be located 7' east of GL 34 and the east row will be located a further 25' east as shown. All 10 columns have been positioned clear of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Note that for Option 1, the accepted location in RFI 264.3 was based on an edge of a sump pit, which locates the centerline of bridge pier 10'-1 3/4" west of grid line 35 (not 10'-6"). However, the response for RFI 264.3 is still applicable for a centerline of pier location 10'-6" west of grid line 35.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

internal bracing. The sidewalk will be located in Lot N.

There are two options for the location of east bridge column 3 as shown in the attached layout drawing.

- Option 1 is the preferred option. This is located on E line 10'-6" west of Grid line 35 (Pile exclusion zone penetration approved via response to RFI 264.3).

- Option 2 is located a further 5' west of option 1 to the location on the TG-06 drawing. The impacts of option 2 to the superstructure are not known at this time. The irregular alignment of the eastern row of piles in option 2 will create local stress concentration in both the diaphragm and superstructure in the longitudinal seismic analysis. This is not a preferable configuration.

Please confirm the location of the superstructure and the piles. Advise on the location of east bridge pile 3.

The Option 2 location (15'-6" west of grid line 35) has been accepted via RFI 264.2.

Please notify Design Team of selected option.

Any cost impact for the two proposed locations shall be reviewed with TJPA prior to moving forward with the work.

T-0265 **BSE - TG03 BSE CDSM Cut-off Wall** **Closed** **11/09/2011** **11/19/2011** **11/17/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings GT-2102, GT-2103, QBD TG0300-0098

Balfour Beatty Infrastructure, Inc. (BBII) is planning to start dewatering and excavation without installing cut-off walls and sectionalized dewatering. According to the response for QBD TG0300-0098, BBII can eliminate cut-off walls as their means and methods although contract drawings/specifications indicate cut-off walls. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

These cut-off walls were shown on the drawings at the request of the Contractor during preconstruction review. The installation of these, or not, is at the discretion of the Contractor.

Arup has not yet received the dewatering submittal for the mass excavation.

T-0266 **BSE - Moratorium Conflict With Phase 2 Utilities In 1st Street** **Closed** **11/23/2011** **11/23/2011** **12/06/2011** **Potentially** ☐

From: Webcor Construction LP Manuel Saldana **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Jeff Molloy

REQUEST:

BBII is in receipt of the moratorium waiver expire date of 12-09-2011. BBII/PEC will not be able to complete the Phase II utility work by 12/9/11 without accelerating the schedule. Our original request for extension was December 19, 2011. A 12/9/11 completion date may be achievable if PEC is allowed to work 10 hr shifts during the day beginning 11/28 through 12/2 as well as working on 12/3 and 12/4. In addition, we propose to have a separate night crew to work near / around the Minna Street intersection to alleviate impacts to heavy demand of day traffic. The majority, if not all, of the demolition can occur during the dday to mitigate noise at night. The night work would need to begin on 11/28 and run through 12/2. Please keep in mind that implenting an accelerated schedule may also impact PG&E. We have no control over their work and the completion of the utlity tie-ins and Mandral testing is contingent on PG&E's availability per the new adjusted completion date.

In summary we are requesting direction for the following items to meet the 12/9/11 moratorium deadline:
1) W/O to permit BBII / PEC to work the extended hours, and night shift i.e. 10 Hours Days and Night work operations,
2) Permit from MTA to extend working hours (closure times) during the day
3) Permit from MTA and DPW to work at night within lane closures
4) Permit from TJPA to work in Zones 1 & 2 at night
5) Agreement / Approval for compensation of additional cost (premium time and or shift rate) BBII will have magnitude of cost for the Monday morning discussion

We respectively request a meeting with W/O on Monday morning (11-28-2011) to discuss direction regarding the above items.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Holiday Moratorium waiver is extended to 12/21/11 by SFMTA. BBII/PEC work can continue on day shift Monday-Friday in accord with SFMTA Special Traffic Permit 11-7786 issued on 12/2/11.

T-0269 **BSE - Mass Excavation Pile Extraction Clarification** **Closed** **12/13/2011** **12/23/2011** **12/27/2011** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Dean Wallahan

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference: 31 00 00 1.4 C.2 and Attached Sketch

31 00 00 1.4.C.2 Pile Extraction - To occur in two (2) stages per Zone.
Stage 1 extraction will remove the piles within the footprint of the trestle the middle 60' of the work zone, dewatering wells and piles that are in conflict with the bracing pin pile locations. Piles will be removed using a non ground deformation control method and be removed full length to be utilized for offsite LEED projects and to help achieve sustainability for this material.
Trestle piles will be installed after Stage 1 pile extraction and concurrently with Stage 2 pile extraction.

Stage 2 extraction will remove the piles within the 50' +- area adjacent to the CDSM walls along A and J lines. Piles will be extracted using a ground deformation control method as per Section 02 41 19 - 3.1.B of the specifications utilizing both casing and backfilling of the void or removal by means of cutting the pile off at the grade of each level of excavation as the work proceeds.
Please reference the attached drawing for details of the above procedure.

The 80 Natoma shoring wall will be removed in stages coinciding with the stages of excavation.

Please confirm this method of pile extraction during mass excavation is acceptable.

ARUP Response:

The method described is not in accordance with the Contract Documents which require the existing piles to be removed using Ground Deformation Control Methods (as defined in 02 41 19) except where Non-Ground Deformation Control Methods are allowed and noted as such on the drawings.

The method described is acceptable with the following notes: this is acceptable for timber piles only, and if they are longer than 30 feet, Arup may re-evaluate the methods used. If the density of existing piles exceeds 30 piles per 1000 square feet, Arup may re-evaluate the methods used. If excessive ground movements are observed, the Contractor shall switch to using a Ground Deformation Control Method.

T-0269.1 **BSE - Zone 2 Free Pull Pile Extraction Test Section** **Closed** **01/25/2012** **02/04/2012** **02/07/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII are proposing to perform "free pull" pile extraction on a 'test section' in Zone 2. The proposed piles will be extracted near GL14, close to CDSM wall on the south side using a 'non ground deformation control

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

method' by free pulling each pile without using steel casing. Any movement that may occur in the CDSM wall will be monitored by the inclinometer located close to GL 14. This test section will give us give us the information we need to determine:
1) If free pulling the piles using a non ground deformation control method affects the CDSM wall by causing movement.

Reference: DD-2211

W/O Note: W/O understands this RFI is the result of ongoing conversations between BBII, ARUP, & PMPC. W/O remains concerned that should the CDSM wall experience movement, the use of the 'Free Pull' method beneath or outside the trestle area, would significantly increase the difficulty in determining the cause of the CDSM wall movement.
2) If it is a suitable method to adopt for removing the remainder of the piles in Zone 2 located outside the trestle area.
The attached drawing (D-2211) conveys the test section in red.
Please advise on the suitability of this test to determine if free pulling can be used outside the trestle zone.

Contractor to provide details of the instrumentation that will be installed by the Contractor to demonstrate compliance with Minimal Ground Loss defined in 02 41 19 3.2 G.

Arup's response to RFI 269 continues to be our position regarding pile removal during mass excavation

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T-0269.2 **BSE - Zone 2 Free Pull Pile Extraction Test Section** **Closed** **05/01/2012** **05/11/2012** **05/04/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: BBII 4/30/12 Ground Deformation Control Drawing

BBII are proposing to perform "free pull" pile extraction on a "test section" in Zone 2. The proposed piles will be extracted near GL14, close to CDSM wall on the north side using a "non ground deformation control method" by free pulling each pile without using steel casing. Inclinometer (I-011) located close to GL 14 will be monitored during the test. This test section will give the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The test set-up and monitoring are acceptable. Since they differ from that used in the area of the buttress, Arup will draw conclusions on the suitability of free pulling outside the trestle zone after we evaluate the test results.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

information needed to determine:
1) If free pulling the piles using a non ground deformation control method affects the CDSM wall by causing movement.
2) If it is a suitable method to adopt for removing the remainder of the piles in Zone 2 located outside the "trestle area".

The attached drawing conveys the test section in green. Please advise on the suitability of this test to determine if free pulling can be used outside the trestle zone.

T-0269.3 **BSE - Zone 2 Pile Extraction Test Section** **Closed** **06/15/2012** **06/25/2012** **06/21/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII completed the timber pile extraction test section in zone 2 on 06/12/2012. Based on the data recorded by ARUP inclinometers, please advise if BBII can continue with the timber pile extraction in Zone 2 using non ground deformation control methods ("free pull').

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attachmed memo for Arup's review of the Contractor's test program and proposed method of removing piles, and actions required by the Contractor going forward.

T-0269.4 **BSE Zones 3/4 Pile Extraction Methodology** **Closed** **09/27/2012** **10/07/2012** **10/05/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please confirm ARUP's 9/25/12 verbal revision to RFI response T-0269.3, to employ the originally specified ground deformation control method (not free pull) when pulling timber piles between: Soldier piles 251 and 276 & between A-line and the north edge of the access trestle.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup confirms this verbal revision.

The Contractor shall employ the originally specified ground deformation control method (not free pull) when pulling timber piles in the portion of Zone 3 and Zone 4 which is defined by soldier pile 251 to the west and solder pile 276 to the east, and A-line to the north and the north edge of the trestle to the south.

Additionally, due to the excessive movements caused by the timber pile pulling in the southwest corner of

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Zone 3, the Contractor shall revert to using the original timber pile pulling as specified in the construction documents for removal of any piles within 30 feet of the CDSM shoring wall.

T-0269.5 **BSE Zone 3 & 4 Pile Extraction Methodology** **Closed** **10/10/2012** **10/20/2012** **10/12/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference: 02 41 19
Drawing Reference: GT-2102 / GT-2103

The response to RFI # T-0269.4 says to revert to using timber pile pulling as specified in the contract documents.

Per notes on GT-2102 and GT-2103, non-ground deformation control methods (free pull) can be used between Grid Lines 20 and 24.

Upon field conversations, please confirm BBII's interpretation of the designer's intent is correctly shown on the attached drawing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup confirms this verbal revision.

The Contractor shall employ the originally specified ground deformation control method (not free pull) when pulling timber piles in the portion of Zone 3 and Zone 4 which is defined by soldier pile 251 to the west and solder pile 276 to the east, and A-line to the north and the north edge of the trestle to the south.

Additionally, due to the excessive movements caused by the timber pile pulling in the southwest corner of Zone 3, the Contractor shall revert to using the original timber pile pulling as specified in the construction documents for removal of any piles within 30 feet of the CDSM shoring wall.

T-0269.6 **BSE Zone 3 & 4 Pile Extraction Methodology** **Closed** **10/15/2012** **10/25/2012** **10/19/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference: 02 41 19
Drawing Reference : GT-2102 & GT-2103

Please confirm that the direction is to excavate and cut timber piles for all remaining timber piles.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the Specification 02-41-19 Pile Removal. Due to contractors inability to control settlement and increased vibration levels using the non ground deformation control methods contractor is directed to use Spec Paragraph 3.1B. Refer also to SPEC 01-35-

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65 MITIGATION MEASURES AND MONITORING.

T-0269.7 **BSE - Timber pile extraction method in the footprint of the Zone-4 trestle** **Closed** **04/11/2013** **04/21/2013** **04/16/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Ref: GT-2102, GT-2103

Please confirm ARUP's 4/10/13 verbal comment that the contractor may the use non-ground deformation method (free pulling) for Zone-4 timber piles in the footprint of the trestle.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In Zone 4, timber piles which are in the footprint of trestle piles may be extracted using non-ground deformation method (free pulling).

T-0270 **BSE - Clarification for Existing Ground Water Elevation** **Closed** **12/28/2011** **01/07/2012** **12/30/2011** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Arup Kevin Clinch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Jeff Molloy

REQUEST:

Reference: 31-23-29 and Attached Document

As discussed during the meeting on 12/22/11, to help obtain an accurate dewatering model, BBII is requesting the recent piezometer data for Zones 1 and 2. In addition, BBII has reviewed the data for piezometers 1182, 1229 and 1255 located adjacent to 301 Mission St (see attachment) and would like to clarify the initial ground water level to use in the model for Zone 4. Based on our review, the existing natural groundwater condition fluctuates between 1.6 E.L and -8.1 E.L in this area. BBII would like to agree upon a starting groundwater elevation of -5.0 E.L for Zone 4.
Also, BBII would like clarification as to the base groundwater level to use for Zones 1, 2 and 3 based on the
project data.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Available piezometer data for zone 1 and 2 has been recently transmitted through an email to Turner dated 12/28/2011.

The baseline water level for piezo P-06F (aka 1262) is +1.6 ft NAVD88.

The baseline water level for piezo P-06MS (aka 1182) is +1.1 ft NAVD88.

The baseline water level for piezo P-07MS (aka 1229) is +1.0 ft NAVD88.

Additional baseline data will need to be collected in the piezometers in Zone 1 and 2 prior to establishing a baseline datum.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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T-0271 **BSE - CRT-021 Gate Fence Clarifications** **Closed** **01/05/2012** **01/05/2012** **01/10/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gwynne Powell **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Turner Construction Company Jack Adams

REQUEST:

In regards to the Proposed Driveway shown on the CRT#021 drawing and outlined in Bullets #1 and #2 in the Scope of Work, please clarify the following:

-Per the location of the 18ft Gate, a 10ft fence would need to be constructed to connect the existing 9ft tall fence to the Proposed Driveway gate location (see 1/4/12 Photo attached). Please confirm the 10ft fence should be included in this CRT-021.
-Should the 24'-10" section of the existing 6ft tall fence (see 1/4/12 Photo attached) be replaced?

Confirm Howard St shown on the CRT#021 attached drawing should read "Folsom St"

Confirm that Bullet #3 under the "Scope of Work" refers to Gate #1 in the CRT#021 attached drawing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed Driveway, Gate and Fence shown on the CRT#021 drawing:

-Not Confirmed. The location of new gate and curb cut is where the Contractor is currently driving trucks and equipment over city sidewalk and curb north of this light pole. Contractor has misinterpreted the locations of curb cut and gate provided by TJPA. The location of proposed driveway curb cut and new gate is to be north of existing light pole as shown - dimensions were provided only as guidance.

- Confirmed the added fence cost should be included in this CR T-021. Contractor to add small section of fence as required to install new gate (fence added both north and south side of gate). Fence can be nine foot and align with top of existing Parcel P'-P" fence and/or step down to align with existing 6 foot fence. Note: green slats are to be eliminated at both gate and fence in this area to assist Truck Drivers and pedestrian vision.

-Not Confirmed. Section of the existing 6ft tall fence up to AC Transit Fence corner is acceptable as is.

- Confirmed. "Howard St" shown on the CRT#021 attached drawing should read "Folsom St" .

- Confirmed. Bullet #3 under the "Scope of Work" refers to "Current Driveway" Gate #1 in the CRT#021 attached drawing

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0272	**BSE - D1 Casing Recovery Inquiries**	**Closed**	**01/27/2012**	**02/02/2012**	**01/27/2012**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

BBII is requesting the following to complete its D1 casing retrieval plan:
1. Condition specific engineering calculations to mitigate earth and water heave from the bottom of the casing.
2. Condition specific engineering calculations to substantiate no casing buckling.
3. Condition specific plan engineering calculations for dewatering, specifically expected water quantity.

Note - This RFI is high priority and an expedited review/response is necessary.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

NOTE: Void. Answered in RFI T-0272.1

ARUP Response:

Arup is in receipt of the Contractor's Buttress Shaft D1 Casing Retrieval Plan (Constructware Transmittal item 140-03134). Designing and executing the plan to retrieve the casing is the Contractor's responsibility. The Contractor shall provide calculations for Arup to review which demonstrate that the method does not lead to ground loss beneath and around the casing. Arup will not provide calculations in support of the Contractor's plan.

1. Arup cannot comment without a more complete plan that includes the methodology by which they intend to retrieve the casing. The plan should include, but not be limited to, the current height and composition of the soil plug in the shaft, the planned height and composition of the soil plug during the retrieval process, the depth of maximum dewatering, the method by which the shaft will be backfilled upon retrieval of the casing, and the measures they will take to monitor heave at the plug.

2. Arup will not perform these calculations. The Plan (Constructware Transmittal item 140-03134) states that calculations are being prepared.

3. Refer to response to question 1.

Answered by Kevin Clinch (ARUP)
01/27/2012

T-0272.1	**BSE - D1 Casing Recovery Inquiries**	**Closed**	**01/27/2012**	**02/06/2012**	**01/27/2012**	**Potentially**	☐

From: Webcor Construction LP Kirk Nielsen **To:** Arup Kevin Clinch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

BBII is requesting the following to complete its D1 casing retrieval plan:
1. Condition specific engineering calculations to mitigate

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup is in receipt of the Contractor's Buttress Shaft D1

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

earth and water heave from the bottom of the casing.
2. Condition specific engineering calculations to substantiate no casing buckling.
3. Condition specific plan engineering calculations for dewatering, specifically expected water quantity.

Note - This RFI is high priority and an expedited review/response is necessary.

Casing Retrieval Plan (Constructware Transmittal item 140-03134). Designing and executing the plan to retrieve the casing is the Contractor's responsibility. The Contractor shall provide calculations for Arup to review which demonstrate that the method does not lead to ground loss beneath and around the casing. Arup will not provide calculations in support of the Contractor's plan.

1. Arup cannot comment without a more complete plan that includes the methodology by which they intend to retrieve the casing. The plan should include, but not be limited to, the current height and composition of the soil plug in the shaft, the planned height and composition of the soil plug during the retrieval process, the depth of maximum dewatering, the method by which the shaft will be backfilled upon retrieval of the casing, and the measures they will take to monitor heave at the plug.

2. Arup will not perform these calculations. The Plan (Constructware Transmittal item 140-03134) states that calculations are being prepared.

3. Refer to response to question 1.

Answered by Kevin Clinch (ARUP)
01/27/2012

T-0273 **BSE - Clarification for Driveway Desgin at 540 Howard CR -018R2** **Closed** **01/30/2012** **02/09/2012** **02/06/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Reference: Attached BBI Sketch
CRT-018Rl directs BBII to complete a 12ft driveway at the 540 Howard Street. The existing conditions/location of the curb, USPS facilities and water fire hydrant prevents the driveway from being installed within compliance with the DPW and ADA standards.
DPW/Tumer/W/0 and BBII discussed various solutions to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Alberto Herrera of DPW, Mike Pavich of BSM, and Pete Arnautoff of BFP, the proposed modification is acceptable. See (2) linked documents for the full breadth of their responses.

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bring the driveway into confmmance with ADA
and DPW standards at the field meeting held on January
17th 2012 and again 01/24//2012.
Pursuant to the field meeting and direction of CRT-018R2,
BBII is requesting detailed plans to allow for
construction of a compliant driveway at 540 Howard
Street. BBII has been directed in the field by
W /0/Tumer, to complete modification to the driveway at
540 Howard Street. Per our field meeting please
refer to the attached drawing, indicating BBII
understanding on the modifications required.
Please confirm the modification per the attached drawing
is compliant with City and ADA driveway
standards.

T-0274 **BSE - Conflict between CDSM & Dewatering specification** **Closed** **02/10/2012** **02/20/2012** **02/16/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Section 31 56 13.3.12.F.1 states "The performance of the shoring wall shall be such that the groundwater levels around the excavation are maintained within (3.0) feet from the pre-excavation levels." The section further states "In the event the water levels begin to drop below the specified limit, the Contractor shall be responsible to implement appropriate measures to control groundwater levels within the specified limits."

Section 31 23 19.1.5.B.10 states "Include description of emergency procedures to follow when system failure or other problems arise."

In the event the CDSM wall fails to mitigate the effects of the dewatering within the excavation should not previously drilled recharge wells be ready to recharge the affected area outside the excavation?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Recharing wells may be used at the Contractor's discretion pending Arup's review of the well details.

These wells shall be at no additional cost to the TJPA

T-0275 **BSE - Request for relief from 1" deep dimension of CDSM cavities** **Closed** **02/15/2012** **02/25/2012** **02/16/2012** **Potentially** ☐

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

Section 31 00 00.3.8.L states
"On vertical surfaces of CDSM shoring walls, scarify high areas and fill in cavities exceeding 1" deep with patching cement to provide a reasonably uniform surface over which protection board, installed in a later contract, will span without buckling."
The trade subcontractor is seeking relief from the 1" deep requirement. Please advise as to:
1. Acceptance.
2. Revised dimension.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI does not comply with the RFI definition in Spec 00 07 00 Section 6.02. WOJV must comply with Spec 31 00 00 Section 3.8.L.

T-0275.1 **BSE - Request for relief from 1" deep dimension of CDSM** **Closed** **02/16/2012** **02/26/2012** **02/17/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Section 31 00 00.3.8.L states
"On vertical surfaces of CDSM shoring walls, scarify high areas and fill in cavities exceeding 1" deep with patching cement to provide a reasonably uniform surface over which protection board, installed in a later contract, will span without buckling."
The trade subcontractor is seeking relief from the 1" deep requirement. Please advise as to:
1. Acceptance.
2. Revised dimension.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WOJV must comply with Spec 31 00 00 Section 3.8.L.

T-0276 **BSE - Request to Change Buttress Concrete Slump Requirements** **Closed** **02/16/2012** **02/26/2012** **02/17/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Emre Erzen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Reference: 31 63 29

Currently, the primary and the secondary shafts utilize a superplasticizer to achieve slump as the water content of the mixes is low. Typically, mixes that utilize a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable.

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superplasticizer are intended for slump ranges between 9" and 12," however, project specifications require an 8" +/- 1" slump. Unfortunately, the addition of the superplasticizer has made it difficult to achieve slump as specified. BBII and Central Concrete are requesting an 8" + 1" - 2" slump (giving a range of 6" to 9") in lieu of the specified 8" +/- 1". There will be no adverse effect to the strength as slump is achieved through chemical admixtures and not by adding water. Please advise.

T-0277 **BSE - Request for Buttress Shaft Design Documentation** **Closed** **02/16/2012** **02/26/2012** **02/23/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Emre Erzen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Please address the following information request from BBII's sub contractor Becho Inc.:
" ... Becho requests to obtain all and any documentation used in the design ofthe Buttress Shafts. Documentation should include, but is not limited to, submitted and approved calculations, sketches, preliminary designs and calculations, conceptual drawings, all site investigation, and all other work documents and ·work papers that were utilized to develop the buttress shaft design in addition to ·what's provided in the contract documents and specifications. "

Please advise, if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The request for documents contained in this RFI is rejected as overly broad, burdensome and seemingly unrelated to any legitimate enquiry relating to the contract or the required work. This is not the proper use of an RFI.

T-0277.1 **BSE - Becho's 2nd Request for Buttress Design Doc** **Closed** **03/23/2012** **04/02/2012** **03/28/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Becho requests to obtain all work documents, sketches, preliminary calculations and approved calculations which show how the designer arrived the final skin friction values used in the design of the buttress shafts as well as the buttress shafts minimum 10 feet embedment into bedrock.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per the TJPA, refer to response given in RFI T-0277.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0277.2	**BSE - Request for Buttress Shaft Design Documentation**	**Closed**	**04/04/2012**	**04/14/2012**	**04/11/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author:

REQUEST:

Per the agreement at the 4/4/12 TCCO Progress Meeting BSE Buttress Shoring and Excavation please find Becho's Request for additional design documentation below:

Becho is in receipt of RFI # T-0277.1 regarding the Buttress Shaft Design Documentation. As per the TJPA response, Becho more specifically requests the Reference Shoring Design work documents pertinent to zone 4.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We are able to reply to a more specific information request. Per Contract Spec 00 03 20 - GEOTECHNICAL DATA, sections 1.2 A.1 and 1.3 A.1 and A.2, three documents (listed below) are available for the Contractor to review. Please specify which report is requested.

00 03 20 1.2 A.1 Transbay Transit Center, Final Geotechnical Data Report, Volumes 1, 2, and 3. Transbay Joint Powers Authority. Prepared by Arup North America Limited, February 2010.

00 03 20 1.3 A.1 Final Report, Results of Prototype Test Program, Installation of Shoring Walls Using the Cement Deep Soil Mixing Method. Transbay Transit Center, Prepared by Arup North America Limited, May 2010.

00 03 20 1.3 A.2 Final Report, Results of Prototype Test Program and Monitoring during Construction of Drilled Shafts. Transbay Transit Center, Prepared by Arup North America Limited, May 2010.

T-0278	**BSE - Access Trestle Bump Out Coordination**	**Closed**	**02/16/2012**	**02/26/2012**	**02/24/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Reference: Attached BII Sketch
Due to the deletion of the "Natoma Finger" portion of the access trustle BBII is proposing to install additional "bump outs" (per the attached sketch). For coordination purposes, please provide "no fly" zone information for these locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup understands that the design team's response to RFI-251.1 shows the "no-fly-zones". Contractor shall refer to the RFI-251.1 response for this information. Regarding the addition of the "bumpouts", Arup will review the geotechnical aspects of the revised design when they are submitted.

T-0279	**BSE - Trestle Welding Code Compatibility**	**Closed**	**02/27/2012**	**03/08/2012**	**03/20/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference:
ASHTO/AWSS D1.5M/D1.5:2008
SH-0200

The Temporary Access Trestle Design submitted in December specified AWS 01.1 as the required welding code. During the review process the reviewers requested that the welding code be changed to AWS 01.5- Bridge Welding Code. This request was complied with by revising general note A5.2 on the conformed trestle drawings.

Since issuing these documents, BBII has been informed by both our shop and field welding inspectors that a compatibility discrepancy exists between the 01.5 welding code and base metals/ member shapes originally specified in the trestle design.

D1.5 is specifically intended for use on bridges and it is not intended for use on "structures composed of structural tubing" as noted in section 1.1.1 attached. This causes a discrepancy because unlike most bridges, our trestle contains a substructure completely comprised of structural steel tubing. (ie Pipe pile, lateral and longitudinal X-bracing).

In addition to the pipe incompatibility, there is also an incompatibility between the specified base metals. 01.5 requires base metals to be ASTM A709 and the trestle design specified a variety of different base metals depending on their structural shape as shown in general note 2.28 also attached
Since Article 1.1.1 of 01.5 permits the Engineer to choose to reference an alternate applicable welding standard when fabrication or structure components are not specifically addressed within its sections, BBII proposes keeping AWS 01.1 as the specified welding code because of its base metal compatibility, but adding a supplemental trestle specific welding specification written by the EOR that increases the quality control to a level equal to that of 01.5. This supplemental specification will include applicable portions of 01.5 section 3 "Workmanship" and section 3 "Inspection" when the requirements are greater than that of 01.1. (ie: fit-up tolerances, NOT frequency, etc).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

URS Response to RFI No. T-0279 Trestle Welding Code Compatibility:

A series of typographic errors occur within the RFI, referencing the AWS documents D1.1 and D1.5 as 01.1 or 01.5. References to AWS documents should be correctly identified by the correct AWS document numbers to avoid any future confusion within the project documentation. This RFI should be corrected or annotated to reflect these typographic errors.

No exception has been taken to use tubular steel elements as components within the trestle structures.

Note AWS D1.5 section 1.2.2 Approved Base Metals: This AWS section provides a list of approved base metals, and prefaces this with Unless otherwise specified, and furthermore specifically states Other steels may be approved by the Engineer. We understand other steels have been recommended for approval by the Engineer (EOR = Pirooz Barar of PB&A) as they are included for use in the set of contract drawings for the Access Trestle. With the recommendation by the EOR and concurrence by the Peer Reviewer that the base metals proposed for use are suitable for the intended usage including an assessment of fatigue and potential for cracking of welding for the required service loading an service life, URS takes no exception to the use of the alternate base metals.

Use of AWS D1.5 is a requirement of the procurement specification, not simply a request made by technical reviewers. Reference 01 53 13 Rev 1.

Where materials within the trestle structure are not addressed by AWS D1.5, then use of AWS D1.1 is approved for connection of these elements where D1.5 is not applicable as follows:

Where preapproved joint geometry for welding is required, geometry in accordance with preapproved welding procedures per AWS D1.1 are approved for use;

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Please advise if the proposed resolution is acceptable.
Upon concurrence, BBII will submit the EOR's
Trestle Welding specification for review.

Provide all inspections for AWS D1.1 elements in accordance with all requirements of AWS D1.1;

Where an element that is addressed by AWS D1.5 is connected to an element governed by AWS D1.1 (for example, plate to structural tube), the most stringent inspection requirements of AWS D1.1 vs. AWS D1.5 shall be provided; and,

Minimum and maximum fillet weld sizes and other requirements applicable to fillet welding per AWS D1.5 shall apply to all fillet welding irrespective of the base metal to which welding is applied.

Use of a supplemental welding specification in place of use of AWS D1.5 is not acceptable. Provide full compliance with AWS D1.5 for all procedures and inspections except where AWS D1.1 has been approved for use per the notes above.

T-0279.1 **BSE - Trestle Welding Code Compatibility** **Closed** **03/28/2012** **04/07/2012** **04/09/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference:
BBII Demarcation Sketch
PB&A Trestle Welding Inspection Plan

The response to RFI T-279 provided a method of dealing with the trestle welding code compatibility issues that would be difficult to enforce, track and document. BBII proposes making a clear demarcation line at the bottom the cap beam that will clearly differentiate the two welding codes.

Additionally the RFI response appears to infer that the Temporary Bridge Specification 01-53-13 requires full compliance with AWS D1.5 as described in the third and last paragraph. 01-53-13 Paragraph 1.6.H (revB) only requires Welding Qualifications (procedures and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Use of AWS D1.1 and AWS D1.5 for superstructure and substructure as indicated on bridge cross section figure prepared by BBII and attached to this RFI No. T-0279.1 is acceptable.

Submission of the Trestle Welding Inspection Plan (by PB&A and attached to this RFI No. T-0279.1) for review and acceptance via the RFI process is not an acceptable method, therefore we have no comment on it.

For clarity we respond to the welding inspection plan with the following: All requirements, including inspection, of AWS D1.1 apply to AWS D1.1 areas. All requirements, including inspection, of AWS D1.5 apply to AWS D1.5 areas.

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personnel) to be performed in accordance with AWS D1.5.

Therefore in order to comply with the project specifications and the appropriate welding codes, BBII will Perform all welding below the demarcation line (substructure) with weld procedures and welder qualifications in conformance with AWS D1.1 since the members are predominately comprised of tubular material.

Perform all welding above the demarcation line (superstructure) with weld procedures and welder qualifications conformance with AWS D1.5 since the main members are Wide flange beam.

Inspection will be performed by the project special inspector in accordance with recommendations of the EOR attached.

Please confirm this is acceptable.

T-0280 **BSE - Request to shorten depth on shaft D/1** **Closed** **02/29/2012** **03/10/2012** **03/02/2012** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref - Attached RFI from BBI/Becho

Due to the blowout conditions previously encountered on Buttress Shaft D1, BECHO requests to install Shaft D1 to a depth of 180 feet as previously proposed by ARUP. BECHO believes the blowout condition still exists and thus would like to proceed with caution to prevent another occurrence. Alternatively, if ARUP feels this is no longer an option, BECHO requests that ARUP increase the maximum spacing allowed between the tangent shafts, in event to mitigate possible schedule delay, and/or re-break of casing while advancing D1. By allowing such changes will help mitigate Buttress shaft schedule.

W/O acknowledges that BBII has yet to demonstrate that a "blowout" condition has in fact occurred. W/O would

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
Earlier discussions regarding the consideration of shortening shaft D-1 was based on having E-1 and E-2 in place to depth and abandoning the casing at D-1 beneath the sheared break. Shafts E-1 and E-2 are not complete and the casing has been painstakingly removed, therefore shaft D-1 shall be installed in accordance with the Contract Documents.

The Contractor shall submit a proposal for achieving the increased spacing that acknowledges the fixed distance between shaft rows C and M which were established based on RFI 151.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

request the design team consider short pouring D-1 due to drilling difficulties encountered. Alternatively, W/O would request the spacing revision described above.

T-0281 **BSE - Survey Site Drawing and Certificate Submittal** **Closed** **03/06/2012** **03/16/2012** **03/09/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Danny Walsh **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBIII is unclear on what is required for the "site drawing and certificate" submittal listed in section 01 10 50 1.3B. As the first contractor working on the construction of the terminal, no previous work is in place. Please confirm that the requirement is intended for future trade packages (to verify the work already completed by previous trade subcontractors), or provide additional clarification on what is required of BBII to complete this submittal requirement.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor with certification of the GC's surveyor is to provide items specified in Division 01 10 50 1.3B for the purpose noted in the specification: to certify "the elevations and locations of the Work are in conformance with Contract Documents".

T-0282 **BSE - News/Advertisement Stand Removal** **Closed** **03/16/2012** **03/26/2012** **03/19/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

The unused news/advertisement stand on the Westside of Fremont Street needs to be removed to accommodate the Buttress drilling on shafts A & B. BBII intends to modify the sidewalk at this current location to provide 3 - 11ft lanes on Fremont Street per specification section 01-15-70. (see attached sketch)

Please provide direction to relocate or remove these stands.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Jack Adams of Turner, at no cost to the owner the Contractor may remove the news/advertisement stand and store in Parcel M

T-0283 **BSE - Backfill Material For Pre-Trench** **Closed** **03/15/2012** **03/25/2012** **03/20/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Jeff Molloy **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference:
Proposed 1 sack sand mix design

BBII is not able to achieve the required compaction per SFDPW requirements due to inclement weather conditions. We have been advised from suppliers that the sand backfill material is saturated, and from past experience will not achieve the required compaction.

If the weather persists as forcasted BBII is proposing to backfill with 1 sack sand as a substitute to dry material. This will allow us to maintain the scheduled CDSM wall installation on 3/23/2012, and maintain the DPW compaction standards. Note sand slurry is only required in the street or public right of way.

Note: According to BBII this will not impact DND/Malcolm in the installation of the CDSM wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII has requested use of sack sand slurry mix design FOA100CX. This use of sand/slurry is specified in Section 31 23 10, 2.2, H of the utility relocation spec. See also RFI U-0156.

This use is acceptable per SFDPW requirements due to inclement weather conditions. Also, this use of slurry is important for the upcoming CDSM wall at the pretrench locations. Per correspondence attached from Webcor-Obayashi the CM/GC, they state that their Trade Subcontractor "BBII has considered and coordinated with DND/Malcolm in this regard." (see uploaded document under 'Supporting Documents')

Substituting this slurry versus soils compaction and testing is acceptable. However this sand slurry use is a Contractor scheduling decision and will be at no additional cost to the TJPA from WOJV, BBII, and/or Malcolm-DND.

T-0283.1 **BSE - Backfill for Pretrenching** **Closed** **03/29/2012** **04/08/2012** **03/30/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal

To: Turner Construction Compan Gary Krutsch

Answered By: Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

As a supplement to RFI 283 regarding the use of a CDF mix for backfill of the pre-trench at A-line across First Street, BBII is submitting the attached mix design for review and acceptance. The previously submitted mix design was not pumpable and due to the nature of the pile extraction and backfill operation a pumpable mix is required so backfill compaction can be achieved. The attached mix will allow us to achieve the DPW compaction requirements and also allow for the installation of the CDSM wall.

The use of this mix design is scheduled for this afternoon in order to maintain the CDSM installation schedule for this weekend. BBII would much appreciate an expedited review and acceptance of this mix design.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CDF mix for backfill of the CDSM pre-trench locations is acceptable. CM/GC Webcor-Obayashi to confirm with their Trade Subcontractor such that "BBII has considered and coordinated with DND/Malcolm in this regard.

Substituting this mix versus soils compaction and testing is acceptable for the upcoming CDSM walls at the pretrench locations First and Fremont Streets.

However, again this use is a Contractor scheduling decision and will be at no additional cost to the TJPA from WOJV, BBII, and/or Malcolm-DND

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0284	BSE - Request to Borehole Coordinates TTB-07 TTB-09	Closed	03/21/2012	03/31/2012	03/23/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP David Fields

Co-Author:

REQUEST:

After further review of the Geotechnical Report produced by ARUP it has come to BECHO's attention that Boreholes TTB-07 and TTB-09 were not surveyed. BECHO respectfully requests to obtain Northing and Easting coordinates for TTB-07 and TTB-09.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

These boreholes were not surveyed. The approximate coordinates are listed in Table 3 in the Geotechnical Data Report.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0285	BSE - Buttress Rebar Cage Length Adjustment	Closed	03/21/2012	03/31/2012	03/26/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to RFI T-0252, where the Engineer accepted BBII's proposal of fabricating the buttress rebar cages to a pre-extended length of 260' in order to accommodate the buttress shafts that are deeper than 241'. In RFI T-0252, BBII had suggested to extend the overall length of all rebar cage assemblies to 260' by increasing the length of the top "setting cage" 19 feet more. In this proposal, the lengths of structural cage segments were to remain unchanged.

BBII's proposal of extending the length of the setting cage by 19' got accepted with the added requirement of splicing vertical rebar extensions on the job site. BBII takes exception to the added requirement of splicihg vertical rebar extensions on the job site, which would lead to an increase in durations of the rebar cage installations.

In order to eliminate splicing, BBII now proposes to fabricate the setting cage segments up to 9 feet longer than shown on the plans. The structural rebar cage segment lengths will remain unchanged. The top of the structural cage sections will be within up to 9 feet proximity from the top of concrete. This proposal will accommodate the rebar cages with a maximum total length of 250' (241 '+9'=250').

If the rebar cage assembly needs to be longer than 250 feet, BBII will direct the rebar cage manufacturer to also extend the bottom structural cage segment by an added distance equal to the required total length of the rebar cage assembly less 250 feet.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 12/GT-5201 requires the reinforcing steel to be placed up to 1'-0" below the top of the concrete. The top of concrete is shown on GT-5201. Longitudinal bar extensions shall be spliced as needed to achieve this, or the cage shall be fabricated long to achieve this. However, if the top of the fabricated cage is within 9'-0" of the top of the concrete, no bar extensions nor extended cages are required.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0286	**BSE - Use of Actual Utility Weights**	**Closed**	**03/26/2012**	**04/05/2012**	**03/29/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author:

REQUEST:

Reference:
Marked-Up SH-3101
Marked-Up SH-3102
Utility Weight Calculations
PG&E Weights Email
Verizon Weights Email

Temporary Bridge specification 01-53-13 (1.3B) requires the bridge design to include a 3000 lb/lf allowance for hanging utilities below the bridge. Extensive coordination between the RUP designers and the utility owners, BBII has attained the exact location and actual weight of the utilities to be supported by the bridge structures. These weights are shown in the attached document and have been used in the design of the bridge structure as well as the utility hangers. Through our coordination efforts we also know that future utilities will not be added until the temporary bridges are removed. Please confirm that use of the actual utility weights in our design is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reply to RFI 286.0 Use of actual utility loads versus 3000lb per lf in Specifications

RFI T-0286.0 regarding the use of actual weight of utilities versus the nominal 3000 lb/lf required in Specification Section 01-53-13 Part 1.3.B (Temporary Bridges - Performance Requirements) first requires the correct actual weight of the utilities and the application to each of the streets, First, Fremont, and Beale respectively..

First Street Utility Unit Weights

The BBI/PBA temporary bridge design for First Street shows the following utilities suspended from the bridge:

Girder #3 & Girder #4 (Counting from left to right facing north)

PG&E (6) each 6" diameter steel ducts (17.7 lb/lf) + cable (8.2 lb/lf) @ 25.9lb/lf = 155.4 lb/lf under 2 girders #3 & #4 (counting left to right)
Girder #5 & Girder #6 (Counting from left to right facing north)

PG&E (9) each 6" diameter steel ducts @ 25.9lb/lf = 233.1 lb/lf under 2 girders #5 & #6)
PG&E (1) each 4" diameter steel duct @ 25.9lb/lf = 25.9 lb/lf under 2 girders #5 & #6)
Verizon (6) each 4" diameter steel duct @ 11.59lb/lf = 69.54 lb/lf under 2 girders #5 & #6
Subtotal utility load used by BBI/PBA for girders #3 & #4 = 155.4 lb/lf

Subtotal utility load used by BBI/PBA for girders #5 &#6 = 328.54 lb/lf

Total utility load used by BBI/PBA for all girders #3~#6 = 483.94 lb/lf

There are several slight errors in this BBI/PBA calculation:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Verizon has incorrectly used the weight of 4" diameter PVC duct rather than steel duct used in the temporary bridge crossing (4" diameter steel @ 10.3lb/lf duct + 3lb/lf fiber cable x 6 each lines = 6ea x 13.3 lb/lf = 79.8 lb/lf versus 69.54 lb/lf)

PG & E weight for 6" diameter steel duct is slightly less than the weight for 6" diameter pile Schedule 40 (17.7lb/lf versus 18.4 lb/lf x 15 ducts = 0.7 x 15 = 10.5 lb/lf differential)

Total differential = 10.5 lb/lf + (79.8 - 69.5) = 10.5 lb/lf + 10.3 lb per lf = 20.8lb/lf

Corrected Utility weight = 483.9 lb /lf + 20.8 lb/lf = 505 lb/lf

This small differential weight is unlikely to have a major impact on the temporary bridge design based on the capacity/demand ratios calculated by the Engineer of Record.

AASHTO Section 1.1.1 (General Provisions - Design Analysis) states:

"When these Specifications provide for empirical formulae, alternate rational analysis, based on theories or tests and accepted by the authority having jurisdiction, will be considered as compliance with these Specifications".

Based on AASHTO Section 1.1.1 (General Provisions - Design Analysis) the use of actual utility loads now known rather than the provisional 3000 lb/lf loading stated in Specification 01-53-13 Part 1.3.B is acceptable with the following provisions:

Contractor accepts responsibility for the statement regarding the City plans not to install any additional utilities in the bridge streets until the below grade structure is completed and the streets are restored.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBI's Engineer of Record (PBA) has calculated the Demand over Capacity ratio is a minimum of 47% (2:1 Safety Factor) for the crane girders and the other girders Demand over Capacity ratio is 67% (Safety Factor 1.5:1)

T-0287 **BSE - Drain Inlet at the Northwest Corner of Minna and First street** **Closed** **04/04/2012** **04/14/2012** **04/12/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Shad Gardner **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Reference:
TG0300-210.1
TG0300-205.2
City Planning/KCA Emails

In order to comply with city standards BBII intended to install a standard city drain inlet on the north west corner of the Minna and First street intersection as required by our site civil drainage plan (submittal TG0300-205.2, TZ1030-01513A08.2 see also submittal TZ1030-015313A04.1 package TG0300-210.1 for product data). When potholing where this drain inlet is to be located, it was discovered that it would be in conflict with an existing gas line. BBII's design engineer KCA contacted the city planning department and got pre approval of the attached catch basin per the attached email and details. Please confirm that it is acceptable for us to install this catch basin in lieu of what was submitted in the aforementioned submittals.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Submission of the storm water inlet detail (attached to this RFI No. T-0287) for review and acceptance via the RFI process is not an acceptable method, therefore we have no comment on it.

In an effort to help expedite resolution of this conflict the following questions/requests are provided below:

What is the location (depth of cover and horizontal offsets to existing and proposed features) of the existing gas line (and electrical conduits/conductors) relative to the proposed storm water inlet?
The proposed storm water inlet appears to extend approximately 41" deep from top of rim/grade. From review of RUP sheets U-3409 and U-3410/Section T, it appears that there could be as little as 36" of cover over top of the existing PG&E gas line. If PG&E gas line is located within limits of proposed storm water inlet (plan view), there does not appear to be sufficient vertical clearance to install the proposed storm water inlet?
Specify engineered base material that is to be placed beneath proposed storm water inlet.
Provide a detailed sketch (plan and section) with submittal illustrating location of proposed storm water inlet and adjacent existing/proposed features.
Has PG&E reviewed and approved the proposed storm water inlet location?

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Provide comfirmation that the proposed storm water inlet is in compliance with PG&E separation requirements

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T-0288 **BSE - Request to Relocate Rathole to D9** **Closed** **04/05/2012** **04/15/2012** **04/10/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Attached please find Becho's request to relocate existing rathole to Shaft D9 where it will remain until Buttress work is complete. Below is Becho's exact wording:

"Due to the upcoming bridge construction on Fremont Street, Becho will be losing the existing location of the rathole. Becho requests that the existing rathole be relocated to Shaft D9 where it will remain for the duration of the Buttress Shaft Work. Becho proposes to pour Shaft D9 30 to 35 feet short from grade to accommodate the new rathole. Please advise if this is acceptable."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Arup understands there was no attachment, only the one page RFI.

Provided the hole remains cased at all times, or backfilled with CSLM (or an approved equal) whenever the casing is removed, this is acceptable.

T-0289 **BSE - Becho Requesting 9-20-2011 Meeting Minutes** **Closed** **04/11/2012** **04/21/2012** **05/08/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

"On September 20th, 2011 a meeting was held in the TJPA's office to discuss Noise Issues, Coring thru the Concrete Slab and Buttress Work. Present in the meeting where the following key representatives: Brian Dykes, Maria Ayerdi-Kaplan, Rebecca Armenta, and Steven Rule. Please request the meeting minutes for the meeting on 9/20/2011."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No meeting minutes were taken during this meeting.

T-0290 **BSE - Stabilization of Unimproved Soil Conditions Along the Interior Face of the C** **Closed** **04/11/2012** **04/21/2012** **04/18/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP David Fields

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: 31 56 13 3.7 C
BBII Photo of CDSM Wall J-Line

BBII is requesting direction for a method to stabilize the unimproved soil conditions along the interior face of the CDSM wall.

The current condition of the CDSM wall includes unimproved soil conditions that have the potential to become detached from the wall and create large voids at the face of the wall. Please reference attached photo for visual details.

Based on our records, the CDSM wall met all the specification requirements for uniformity and improved soil as per section 31 56 13 of the contract specifications. Please note: Section 31 56 13 3.7 C's requirements (10% and 6") are satisfied by during the TJPA's Representative inspection of double-tube samples at the time of installation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The quality of the CDSM wall is dependent upon the Contractors' chosen means and methods. If the Contractor has concerns regarding the integrity of the wall, the Contractor shall provide a remedial plan to the TJPA for consideration.

Conformance with the criteria within a sample does not relieve the Contractor of their responsibility that the entire wall meet the specifications.

T-0290.1 **BSE - Relevance of Unimproved Soil Pockets in CDSM Wall as it Relates to Waterp** **Closed** **05/28/2012** **06/07/2012** **06/05/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Neither section 31 00 003.8.L or 07 12 10.3.2.C anticipated +1" cavities in the surface of the CDSM wall. However there are +6" cavities in the surface of the CDSM wall the result of unimproved soil pockets although BBII would contend the CDSM wall was installed in accordance with section 31 56 13.3.7.C. On 5/25/12 W/O spoke with Jonathan Lawrence President of Laurenco Systems (888) 321-3338 specified per section 07 12 10.2.1. Sections 31 00 00.3.8.L and 07 12 10.3.2.C speak of "buckling" due to cavities of the face of the CDSM wall. Mr. Lawrence was not concerned over the cavities in the face of this project's CDSM wall for two reasons:

1. Subsequent to his review of the bid documents the substrate for the waterproofing is the INS-1, depicted on 4/A1-8710, rather than the CDSM wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per specification section 31 00 00 / 3.8 L: "On vertical surfaces of CDSM shoring walls, scarify high areas and fill in cavities exceeding 1" deep with patching cement to provide a reasonably uniform surface over which protection board, installed in a later contract, will span without buckling." Repair wall as required in the contract documents.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2. Due to the thickness of the substrate system:
a. ¼" Protection board
b. 3/16" (2) plys #15 felt
c. ¼" Drainage composite panel.
d. ½" INS-2
1-3/16" thick in total Mr. Lawrence was not concerned over a CDSM cavity less than

1'- 0" x 1'-0" x ½" deep.

When asked why he thought section 07 12 10.3.2.C was included in the below grade waterproofing section, if in fact the CDSM was not the substrate for the waterproofing, Mr. Lawrence responded that section 07 12 10.3.2.C was part of the Laurenco's template boiler plate specification really inapplicable to this application.

Please confirm that given the CDSM wall is not the waterproofing substrate system, rather items a-d above, and in light of the frequency of unimproved soil pockets, the project needn't infill the unimproved soil pockets less than 1'- 0" x 1'-0" x ½" deep.

T-0290.2 **BSE - Waterproofing preparatory work on CDSM wall** **Closed** **09/27/2012** **10/07/2012** **10/01/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Specification Reference: TG06 BGP 07 12 10.3.2C

Please confirm that any preparatory work of filling cavities within the CDSM wall for stabilization of the waterproofing board is the sole responsibility of the TG06.0 Trade Subcontractor

W/O comments in follow up to 9/27/12 TCCO / W/O meeting:

1. TG06 package is independent of the TG03 package.
2. BBII should refer to Earthwork specification section 31

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CM/GC to respond.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

00 00.3.8.L
3. BBII should refer to RFI response #T-0290.1 forwarded to BBII 6/5/12

T-0291 **BSE - Arup Requesting Exploratory Cores on Buttress Shaft D1** **Closed** **04/16/2012** **04/26/2012** **04/24/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:
Arup is requesting exploratory core samples at Buttress Shaft D1. Please provide direction on depths, sizes, and locations of cores.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Shaft D1 is, so far, non-conforming. It is in the Contractor's best interest to perform exploratory drilling to ascertain why they are unable to reach the required depth. Arup recommends that the Contractor do so, and that a plan be developed based on the observations made during the two previous attempts to place the shaft.

T-0291.1 **BSE - Arup Requesting Exploratory Cores on Buttress Shaft D1 Follow-Up** **Closed** **04/25/2012** **05/05/2012** **05/04/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:
Arup has requested to revise the response to RFI T-0291 in which the following question was presented -

"Arup is requesting exploratory core samples at Buttress Shaft D1. Please provide direction on depths, sizes, and locations of cores."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
ARUP Response:

There has been further discussion regarding this proposal. Arup retracts the request to core within the footprint of buttress shaft D1.

T-0292 **BSE - First St Bridge Pier 1 Relocation** **Closed** **05/02/2012** **05/12/2012** **05/03/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference:
Revised Drawings and Calculations for Revised Pier 1 Location

The western Pier 1 CIDH pile was rejected due to an anomaly. The corrective action is to replace it with a new pile 6'-0" south. Attached is the revised Bridge Drawings and the revised calculations. This package was emailed to the Bridge Design reviewers on 4-24-12 for expedited review. Please confirm that the new pier 1 location does not cause conflicts with the future structure.

The attachments are not appropriate for an RFI, they should be submitted through the submittal process. Resubmit RFI with pertinent information only

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T-0292.1 **BSE - First St Bridge Pier 1 Relocation** **Closed** **05/03/2012** **05/13/2012** **05/04/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference:
SH-2100
SH-2101

Detail: The western Pier 1 CIDH pile was rejected due to an anomaly. The corrective action is to replace it with a new pile 6'-0" south. Attached are the revised Bridge Drawings showing new pile locations. Please confirm that the new pier 1 location does not cause conflicts with the future structure. Please note the revised design documents were emailed to the Bridge Design reviewers on 4-24-12 for expedited review.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 2 northernmost First Street temporary bridge piers to be shifted as depicted in this RFI is acceptable.

ARUP Response:

Arup takes no exception to this.

T-0293 **BSE - First Street Natoma blind spot hazard** **Closed** **06/05/2012** **06/15/2012** **06/15/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** URS Corporation David Fyfe

Co-Author:

REQUEST:

Regarding the temporary first street bridge. Contract specification section 01 53 13-1.3.A.4 requires us to provide a "8' -high solid barrier system" consisting of 1" plywood which does not allow viewing through the barrier.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Alternative barrier system shall be provided for pedestrian protection to mitigate vehicle/driver sight line obstructions (such as chainlink or other similar product). Contractor to verify alternative barrier

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This is creating a blind turn hazard for traffic entering First street from Natoma street on the south side of First street. Please advise on how you would like to mitigate/fix this hazard.

product meets visibility requirements. Required height of barrier system is not changed.

Alternative barrier system system shall be designed by the temporary bridges design engineer of record and shall meet all code requirements including size of openings and resistance to all loading. Final product shall be continuous (including at transitions to other barrier systems), climb proof and topped with barbed wire. Contractor/engineer of record shall obtain all required approvals for alternate barrier system.

Vehicle barrier system/guardrail(s) are not modified by this RFI response.

T-0293.1 **BSE - First Street and Natoma blind spot hazard.** **Closed** **06/29/2012** **07/09/2012** **07/09/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author:

REQUEST:

Please find attached sketch SK-0293 for proposed pedestrian barrier at the First st. bridge. Please confirm this is acceptable in lieu of previously installed plywood barrier.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor to install 9 gauge galvanized chain link fence with 2" mesh along zone of previously installed plywood barrier on First Street Temporary Bridge. Secure to existing bridge posts MC6x18 with 1/2" diameter galvanized bolts 2' o.c. on each post with full-length 1" x 3/16" flat bar. Install 1/4" galv. top and bottom wire with 3/8" turnbuckles. Secure fence to wire with 11 gauge wire ties. Double twist ends of chain link mesh are on top. See TJPA Spec 32 31 13 Chainlink Fences and Gates. For barbed wire at the top, see 32 31 13 2.5 and 2.8 for requirements. Install barbed wire support arms at 45° tilted away from bridge.

Temporary Bridge engineer of record shall verify that the loading from 1" thick plywood to chain link mesh is not detrimental to the Temporary Bridge design.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0293.2	BSE - Blind Spots at Fremont St. and Beale Street Bridges	Closed	08/13/2012	08/23/2012	08/21/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference:
RFI T-0293.1
RFI T-0293

Blind spots similiar to the those in RFI T-0293 at First street and Natoma street exist at the following locations:

Fremont Street - Northwest & Southwest Corners (Cars exiting from 301 Mission and 400 Howard)
Beale Street - Southwest Corner (Cars exiting from 199 Fremont and 301 Mission)

Please confirm that similiar fencing as per response to RFI T-0293.1 should be installed at these locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

Reference: CR T-043

T-0293.3	BSE Blind Spots at Fremont St. and Beale Street Bridges	Closed	08/28/2012	09/07/2012	08/29/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference:
RFI T-0293.1
RFI T-0293.2

In RFI T-0293.2 there was an error in requesting confirmation for fencing in the Northwest corner when it was meant to request fencing in the Northeast corner.

Please confirm that fencing as per response to RFI T-0293.1 should be installed on Fremont Street on the Northeast corner rather than the Northwest corner.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Install fencing (versus plywood) in the Northeast corner of the bridge to eliminate blind spot at 301 Mission driveway.

T-0293.4	BSE - Blind Spots at Beale Street Bridge	Closed	04/08/2013	04/18/2013	04/11/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Reference: RFI #T-0293.2

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI T-0293.2 provided the fence vs. plywood locations on Beale Street Bridge and the Change Request

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Blind spots similar to what was alleviated at First & Fremont Streets, the result of the originally specified "8'-high solid barrier system", exist on Beale St. at the following locations:

1. Making a right at the Southwest corner exiting 199 Fremont's garage.
2. Making a right at the Northwest corner exiting 301 Mission's garage (the concern being if someone is coming down Beale the wrong way.)

Please confirm if and where chain link, similar to what was specified in RFI response #T-0293.1, is required and what CR # to reference.

number (CR No. T-043A).

Install fence in lieu of plywood at both 199 Fremont and 301 Mission ends of the Beale Street Bridge - west side only. Fence should replace plywood from the end (@ A line and J line) and be installed midway to the construction gate - verify in field.

T-0294 **BSE - Expected CDSM wall deflection** **Closed** **06/14/2012** **06/24/2012** **07/02/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

BBII requests the anticipated deflection values for the CDSM wall obtained in ARUP's design of the shoring wall and used to determine appropriate action trigger levels specified in section 31 09 13.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The request for information contained in this RFI is rejected as overly broad, burdensome and seemingly unrelated to any legitimate enquiry relating to the contract or the required work. This is not the proper use of an RFI. Please follow the requirements specified in section 31 09 13 regarding maximum allowable movements and corrective action trigger levels.

T-0295 **BSE - 301 Mission drive way** **Closed** **06/19/2012** **06/29/2012** **06/24/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Kirk Nielsen

Co-Author:

REQUEST:

Per conversation in previous coordination meeting between Balfour Beatty Webcor, Turner, TJPA and 301 Mission¿s management. We are confirming direction to extend the sidewalk past the limits shown in our grading

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The work BBII has proceeded with at the 301 Mission driveway is in general conformance with the 6/8/12 TCCO, W/0, BBII, Millennium Mgmt. meeting. The direction however is from, to include

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

and drainage submittal through the limits of the 301 Mission drive way. It is also our understanding that we are directed to match the color of the existing black sidewalk in this area. Please confirm.

however limited to, base contract specification section: 00 08 13.1.8.E, 0115 40.1.4, and or General Excavation Permit #12E-0181. The TJPA is not anticipating added cost the result of this issue.

T-0296 **BSE - Clarification of Soil Segregation and Disposal per spec. section 01 13 50/SM Closed** **06/27/2012** **07/07/2012** **06/29/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Roger Rothenburger

Co-Author:

REQUEST:

On 6/26/12 BBII clarified their desired method / location of disposing of the Zone-3 concrete rubble was to deliver it to Brisbane.

Section 01 13 50 / 5.2.1 of the SMP states:

"TJPA shall be provided documentation from the excavation contractor that the accepting landfill for the soil from Transbay Terminal project has been provided with and has reviewed all analytical data collected from the Site."

Brisbane has refused to provide the aforementioned documentation.

In order to facilitate BBII's desired method / location of disposing of the Zone-3 concrete rubble W/O requests that the TJPA clarify, exclusively for the subject Zone-3 rubble, that the documentation required by the TJPA consists only of standard shipping tags and invoices.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Roger Rothenburger 6/28/2012 Section 01-13-50 Part 1.1.C (Hazardous Materials Procedures - Summary) references "Site Mitigation Plan, Transbay Transit Center, Treadwell & Rollo, March 24, 2010" report and states,

"Contractor's work shall include the management of existing soils in a manner consistent with the requirements of the Contract Document including the following reports, "Site Mitigation Plan, Transbay Transit Center, Treadwell & Rollo, March 24, 2010", appended to this Sectin as 01 13 50/APA, and Section 00 03 35 ..."

Section 5.2.1 (Soil Segregation and Disposal) of the Treadwell & Rollo Site Mitigation Plan, 01-13-50/APA states, "Before any excavation activities begin at the Site, TJPA shall be provided documentation from the excavation contractor that the accepting landfill facility for the soil from Transbay Terminal project has been provided with and has reviewedall analytical data collected from the Site. TJPA shall approve all off-site disposal facilities and soil transportation contractors, including, without limitation, available insurable coverge, and prior to the shipment of any soil or other waste materials (emphasis added)."

TJPA in the interest of facilitating disposal of material to Brisbane and other disposal sites removes from Site Mitigation Plan Section 5.2.1 by Treadwell & Rollo, the highlighted words, "with and has reviewed" .

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The only requirement is that some documentation from BBI (the "excavation contractor" that the "analytical data collected from the Site" has been provided to the disposal site.

T-0296.1 **BSE - Clarification of Soil Segregation and Disposal per spec** **Closed** **07/02/2012** **07/12/2012** **07/02/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

RFI response T-0296 was overly broad and failed to conform to previous conversations between TJPA, TCCO, & W/O.

RFI T-0296 Inquiry:

On 6/26/12 BBII clarified their desired method / location of disposing of the Zone-3 rubble was to deliver it to Brisbane.

Section 01 13 50 / 5.2.1 of the SMP states:

"TJPA shall be provided documentation from the excavation contractor that the accepting landfill for the soil from Transbay Terminal project has been provided with and has reviewed all analytical data collected from the Site."

Brisbane has refused to provide the aforementioned documentation.

In order to facilitate BBII's desired method / location of disposing the Zone-3 concrete rubble W/O requests that the TJPA clarify, exclusively for the subject Zone-3 rubble, that the documentation required by the TJPA consists only of standard shipping tabs and invoices.

RFI T-0296.1 Inquiry:

Please confirm, in order to facilitate BBII's desired method / location of disposing the Zone-3 concrete rubble W/O

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

7/2/2012 Confirmed - exclusively for the subject Zone-3 rubble, the documentation required by the TJPA consists only of standard shipping tabs and invoices.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

requests that the TJPA clarify, exclusively for the subject Zone-3 rubble, that the documentation required by the TJPA consists only of standard shipping tabs and invoices.

T-0297 **BSE - Phase 3 Utilities on Beale Street** **Closed** **06/28/2012** **07/08/2012** **07/10/2012** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference attached sketch.

The BSE subcontractor is proposing to relocate the Beale Street temporary bridge to the east; similar to the attached sketch. Please confirm if this will impact any future utilities, i.e. PG&E phase 3 on Beale Street.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Beale Street Phase I temporary utilities were relocated outside and east of the CDSM shoring wall. The RUP project design intent is that Phase II utilities will not be suspended from the temp bridge in Beale Street. In the future, permanent Phase II utilities on Beale Street will be constructed within a designated area above the Transit Center train box termed the "utility corridor". Please coordinate your work with CM/GC.

T-0298 **BSE -Timber Pile Extraction at grid line 19 to 20 and 24 to 25** **Closed** **06/29/2012** **06/29/2012** **07/02/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII completed the timber pile extraction test section in zone 2 on 06/12/2012. Based on the data recorded by ARUP inclinometers, please advise if BBII can continue with the timber pile extraction at grid line 19 to 20 and grid line 24 to 25 using non ground deformation control methods ("free pull').

The attached drawings (D-21 02 and D-21 03) for reference.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

6/29/2012 ARUP Response: This is acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0299	**Micropile Performance Testing**	**Closed**	**07/16/2012**	**07/26/2012**	**07/30/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Reference Part 3.2 "Performance And Proof Testing" of Specification Section 31 63 33

In order to expedite the Micropile Performance Testing review period, BBII is requesting to conduct the performance testing of micropiles prior to excavating Level 5, at approximately -32' Elevation, concurrent with the installation of Level "0" struts. See attached sketch for details.Please confirm that it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification section 31 63 33 3.2 A states: The contractor shall conduct performance tests and proof tests consisting of tension load testing on micropiles. The tests are to be done on piles installed from the bottom of the excavation.

The Contractor's proposal is not acceptable as the testing methodology and the acceptance criteria in the Project Specifications have been developed assuming the piles used for the performance tests will be installed and tested in conditions matching those of the production piles. The performance of the piles installed and tested as proposed will differ due to the higher effective stresses in the soil.

T-0300	**Micropile Performance Test Pile Relocations**	**Closed**	**07/17/2012**	**07/27/2012**	**07/26/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Yuriy Stryzheus **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Please refer to BBII's micropile layout submittal and RFI T-262 that references IFB- Below Grade package for coordination of micropile layouts.

Based on the information provided within BBII's Micropile layout drawing and Below Grade package drawings S1-2023 through S1-2027, the four micropiles subjected to performance testing are labeled as: W411, W396, E383, and E401.

BBII requests to conduct the performance test in Zone 1 at pile No. W604 instead of pile No. W411, which is located underneath Struts No. 6 & 7.

Similarly, BBII requests to test the piles numbered as W473, E477, & E599, instead of the piles numbered as W396, E383, & E401, which are located underneath the trestle.

Please confirm that it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup takes no exception to the proposed locations

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0301	**Trestle Piles in Exclusion Zones (Zone 4)**	**Closed**	**07/23/2012**	**08/02/2012**	**07/30/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Review comments on submittal package TG0300-284 directed BBII to shift two trestle piles (#69 &#72) out of pile exclusion zones (provided by Thornton Tomasetti in response to RFI T-0251.1). BBII worked to avoid these zones to the extent possible. However, in zone 4 the additional buttress shafts created further limitations on trestle pile locations and it was infeasible to completely avoid both the permanent structure and buttress. BBII is aware of the possibility ofeliminating some of these additional buttress shafts but this will not resolve these specific conflicts. Due to the congestion in Zone 4 with both the pile exclusion zones and added buttress shafts, BBII requests an exception for trestle piles #69 and #72.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Requested exceptions will be granted for locations of trestle piles #69 and #72 in submittal TG0300-284. Prior to proceeding the GC is to confirm this has no cost impact to the TJPA or impact on other trades.

T-0302	**ISI Low Compression Strength for CLSM**	**Closed**	**07/31/2012**	**08/10/2012**	**08/10/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Please confirm the low compression strengths for the CLSM, in the ISI test results
(attached), are acceptable. The CLSM was used for pre-trench backfill on Gridline A, First
St. and Fremont St.

Please see attached ISI Test reports:
55606 Compression Test Report on A line between 18-19 lines, sampled 3/29/2012
55607 Compression Test Report on A line between 19-20 lines, sampled 3/30/2012
55608 Compressive Test Report on A line between 19-20 lines, sampled 4/4/2012
51399 Compression Test Report on A line between 19-20 lines, sampled 3/28/2012
56162 Compressive Test Report on A line between 25.2 - 25.5 lines, sampled 4/2/2012

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no compressive strength requirement for the pre-trench backfill Slurry(CLSM) chosen by the Trade Subcontractor in lieu of compaction of soils. This was confirmed with ARUP and per RFI 283/RFI 283.1.

1. TJPA Spec. 31-00-00 Earthwork requires pre-trenching to be backfilled and compaction with satisfactory materials, i.e., sand / soil.

2. These Slurry(CLSM) materials were allowed for backfill as a ¿weak CLSM ¿ per RFI 283.

3. There is no project design/specification of ultimate compressive strength for these pre-trench backfill Slurry(CLSM).

4. The purpose of sampling the CLSM mix is to document the Slurry(CLSM) strength data only

A review of the ultimate strengths (attached and below) are consistent with the strength of compacted soils used for temporary backfill areas prior to completing the CDSM wall processes.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Lab ID No.: 51396

TG03/IR 917

Mix FOA100CX Central

35 Days 170psi

Lab ID No.: 51399

TG03/IR 933

MIX 400FLO Bode

90 Days avg. 180psi

Lab ID No.: 55600

TG03/IR 913

Mix FOA100CX Central

39 Days avg. 130psi

Lab ID No.: 55606

TG03/IR 934

MIX 400FLO Bode

90 Days avg. >160psi

Lab ID No.: 55607

MIX 400FLO Bode

TG03/IR 935

90 Days avg. >160psi

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Lab ID No.: 55608

TG03/IR 949

MIX 400FLO Bode

90 Days avg. >160psi

Lab ID No.: 56162

TG03/IR

MIX 400FLO Bode

120 Days 160psi

T-0303 **BSE - Verizon Duct Bank at the First St Bridge** **Closed** **08/07/2012** **08/17/2012** **08/08/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference:
Attached Photo

Despite providing Verizon surveying, staking, and cutsheets, the Verizon duct bank at the North side of the First St. bridge was installed by others at the incorrect elevation (too low). Please confirm if additional utility supports will be required of TG03 or if others will be proforming the additional utility supports required for the Verizon duct bank.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

8/8/2012 Per Steve Cunningham, TCCO -

Review attached drawing provided by BBIi:

1. PB&A; First, Fremont, and Beale Street Temporary Bridges, Detail 1/SK 3105. Horizontal layout is provided, but not vertical layout for the PGE duct banks.

2. BBIi letter number 4225-000-0316, dated 1/9/12, provided bottom elevation for Verizon duct bank at 12.57' and 13.40'.

Please provide as built elevations of all duct banks. Confirm PGE Phase 2 duct banks were installed with higher elevation at center of bridge.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0304	**BSE - Inquiries with Regard to Proposed Beale St Bridge Atop East CDSM Wall**	**Closed**	**08/23/2012**	**09/02/2012**	**08/27/2012**	**Potentially**	☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On 8/22/12 Beale St. bridge submittal #TG0300-206 was returned to W/O marked not reviewed (Exhibit-A). Upon W/O's
review of BBII's Beale St. bridge design W/O encountered the following inquiries relative to the CDSM wall:

1. BBII's bridge design relies on ARUP's RFI response #T-0209.3 (Exhibit-B). Please confirm ARUP's RFI response #T-0209.3 (Exhibit-C) is applicable as the basis of the design for the Beale St. bridge, given unlike First and Fremont
Streets, the length of the Beale St. bridge is resting atop the East CDSM wall.

2. The decision to allow the North and South bridge abutments to be located atop the CDSM wall was predicated on
the CR #T-025 load testing reference RFI #T-0209.4 (Exhibit-D). Given the testing was performed on different soldier
piles (by others) and differing soil conditions between Zone-1 and Zone-4, is the load capacity derived from the CR #T-
025 testing applicable given the different bridge location and configuration?

3. BBII's Beale St. bridge design relies on resting the length of the Beale St. bridge atop the East CDSM wall. As the
designer of the CDSM wall, does ARUP endorse further loading of the East CDSM wall with the forces imposed by the
Beale St. bridge?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Arup's response to RFI T-0209.3 may be used as one part of the Contractor's basis of design. Arup will review the design for conformance with these recommendations. Note that our review is only for conformance with the geotechnical recommendations; review for constructability, pedestrian impact, OCS pole locations, impact (or lack of) on extension of the trainbox, etc. are by others.

2. Our design recommendations were not informed solely by the load testing results.

3. Arup does not endorse any design decisions made by the Contractor. We will review the design for conformance with our recommendations

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T-0304.1	**BSE - Inquiries with Regard to Proposed Beale St Bridge Follow-Up**	**Closed**	**08/29/2012**	**09/08/2012**	**08/31/2012**	**Potentially**	☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In follow-up to RFI T-0304:

- From the response to question #2 of RFI T-0304 it is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Arup's recommendations in RFI T-0209.3 may be applied to the east CDSM shoring wall.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

understood that ARUP's design recommendations were not informed solely by the load testing results. However the original question remains, is the load capacity derived from the CR #T-025 testing applicable given the different bridge location and configuration?

- So the contractor can understand the parameters of what we are submitting, was the Shoring Wall Designed to withstand the loads imposed by the proposed Beale St. bridge?

The CDSM wall was not designed to support vertical loads, but we have estimated its vertical load carrying capacity and outlined this in our response to RFI T-0209.3. If the bridge bears on the wall, we recommend that the Contractor monitor the wall for movements.

T-0305 **BSE - Inquiries Regarding Proposed Beale St Bridge Relative to Below Grade Stru** **Closed** **08/23/2012** **09/02/2012** **08/27/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: TG0300-206 Beale St. Bridge Structural Design

On 8/22/12 Beale St. Bridge submittal TG0300-206 was returned to W/O marked not reviewed. In lieu of piers the proposed bridge relies on the eastern shoring wall for structural support along the bridge. As a result, the design utilizes the additional capacity of the internal bracing to restrain lateral loads imposed by the bridge.

Upon W/O's review of BBII's Beale St. bridge design W/O encountered the following inquiries relative to below grade structure:

-Do the below grade foundation walls as designed have the additional capacity required to support the lateral loads imposed by the proposed Beale St. bridge?

-Will the below grade foundation walls be required to achieve additional strength prior to removal of re-bracing as a result of the additional laterals loads in which they are subjected by the proposed Beale Street bridge?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor shall demonstrate, through calculations and drawings, that the seismic load from the bridge has a complete load path from bridge to ground.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0306	**BSE - Pedestrian Connection Across the Construction Excavation at Beale St**	**Closed**	**08/23/2012**	**09/02/2012**	**08/29/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference: TG0300-221 BBI - Temp Bridges - Civil and Drainage Plan - Beale St

Contrary to specification section 01 53 13.1.2.A BBII's proposed Beale St. bridge utilizes an on-grade sidewalk for pedestrian travel though the parcel "Lot-N". Please confirm this is acceptable and that no other pedestrian connection across the construction excavation at Beale St. will be required for the entire required life of the bridge.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to install an on-grade sidewalk for pedestrian travel though the parcel "Lot-N"during the required life of the Beale Street Temporary Bridge.

Lot N is available for CM/GC use until the completion of Transit Center construction per Spec. 01-14-19.

T-0307	**Re - Bracing Drawings**	**Closed**	**08/23/2012**	**09/02/2012**	**08/24/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference:
Spec. Section 31 55 00
Drawing S1-1112

In order to design the re-bracing BBII requests drawings for the Below Grade Package. Please provide these drawings on a CD in AutoCAD and PDF format.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference Specification Section 01 10 40, 1.6 C

This RFI has been rejected.

T-0308	**BSE - Phase 2 Extension During the Service Life of the Beale St. Bridge**	**Closed**	**08/27/2012**	**09/06/2012**	**08/29/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

On 8/22/12 Beale St. Bridge submittal TG0300-206 was returned to W/O marked not reviewed.

In lieu of piers the proposed Beale St. Bridge relies on the eastern shoring wall for structural support. As a result of this configuration the eastern shoring wall located along grid line 35.25 will have to remain in place throughout the entire life of the bridge. Multiple contract documents including S1-2027 (Exhibit-A) elude to a "Phase 2" which extends the underground portion of the structure to the east of the existing shoring wall. Please confirm the verbal

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The TJPA confirms that the phase two train box extension will not be constructed during the life of the Beale Street temporary traffic bridge.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

direction that the "Phase 2" package will not be constructed during the life of the Beale St. bridge.

T-0309 **BSE - Traffic Control During the Construction of the Beale St. Bridge** **Closed** **08/27/2012** **09/06/2012** **08/29/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

At the 8/27/12 TJPA Traffic Coordination meeting Balfour Beatty presented a construction plan for the proposed Beale St. bridge. In violation of Specification Section 01 15 70-2 the construction plan included reducing Beale St. down to two available traffic lanes for an approximately six week duration. Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor can temporarily reduce traffic lanes (including up to a full street closure) if they comply with Spec and SFMTA Blue Book requirements. Per Spec 01-15-70 TRAFFIC ROUTING WORK the Contractor would have to:

1. Submit a traffic control and detour plan.

2. Submit a STP Request - Special Traffic permit Request.

SPEC Section 01 15 70 TRAFFIC ROUTING WORK

Paragraph 3.5 SPECIAL TRAFFIC PERMIT

A. Contractor shall apply for a Special Traffic Permit from the SFMTA, if any deviation from the traffic lane requirements (time, width, etc.), as shown in these Specifications, is required. If SFMTA approves the issue of the Special Traffic Permit, the Contractor shall pay the required fee to SFMTA, as specified in the Blue Book, and obtain the necessary permit.

The STP request would need to be reviewed and may be approved by TJPA Reps and SFMTA/MUNI.

T-0310 **Clarification on Sump Pit Location** **Closed** **08/28/2012** **09/07/2012** **09/07/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay Joint Powers Au Edmond Sum

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

RFI Ref: T-0251.3
Spec. Ref: 31 00 00
Drawing/Detail Ref: GT 2101, 2102, 2103

The current coordination drawing for sump pit locations, received in RFI response T-0251.3 (12/13/2011) do not correspond with the BSE contract drawing GT 2101, 2102, 2103. Please confirm the correct sump pit location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to ASI 97. Coordinate with the CMO for transfer of electronic files

---

T-0311 **Subgrade French Drains Along CDSM Wall** **Closed** **08/31/2012** **09/10/2012** **09/07/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec. Reference: 31 00 00

In order to control surface water at final subgrade, Balfour Beatty would like the option of installing (a) trench drain(s) per the attached drawing as necessary around the perimeter of the excavation just prior to or once final subgrade is established. These trench drains will be filled with ¾" drain rock in accordance with specification section 31 00 00-3.16.A. These trench drains will be left in place during micro-pile installation and remain below the mud slab. Water will be pumped out of these trench drains using sump pumps and/or routed to dewatering wells in accordance with specification section 31 23 19. Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Installation of these drains is acceptable with regards to geotechnical engineering as long as it does not incur any additional costs to the owner.

Installation of these drains is not an appropriate mitigation for CDSM walls which are not watertight as specified in Section 31 56 13 Chapter 3.12 ACCEPTANCE CRITERIA, Item F. "Watertight" is defined in this same specification section as "no continuous running or seeping water from the shoring wall."

We have not reviewed this with regards to conflicts with non-geotechnical subgrade features.

T-0312 **Proximity Inquiry as to Beale St. Bridge Pile Location** **Closed** **09/19/2012** **09/29/2012** **09/20/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

BBII's sheet 1/SH-2105 (BBII submittal TZ1030-015313A31.1) calls for the 48" diameter CIDH column to be located 21'-6" off 35-line along E-line. As per sheet A1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI will not be responded to per submittal response TG0300-206 Temp Bridges- Beale Street Structural Drawings and Calculations.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2817 (TG06) the proposed location would obstruct, requiring redesign of the reinforcement, the construction of the structural wall separating the (2) deep pits depicted on 1/S1-3007 (TG06) in room B2761. The location of the pits and the wall separating the (2) pits were always depicted on S1-2027 (TG03). May the aforementioned CIDH column be located as proposed?

T-0313 **Micropile Layout** **Closed** **09/13/2012** **09/23/2012** **09/20/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents
Specification Section: 31 63 33
Drawings: ASI #0097

Per 9/12/12 Turner BSE Progress Meeting, Adamsons Associates(AA) requested BBII to submit a RFI requesting distance tolerances for the proposed micropile layout relocations. Please see BBII's verbage below in response.

The response comments provided to submittal TA1020-316333A12.2 (TG0300-622.2) for micropile stated that the submitted micropile layout was unacceptable, but that the micropile locations shown in the TG0600 (ASI 0097) documents are acceptable. The attached marked up coordination drawings show the locations of the TG0600 documents micropile locations compared to various overhead horizontal and vertical obstructions. The obstructions considered in this comparison include trestle pile and bracing; internal bracing struts, supports, and pin piles; bridge piles; and the buttress walls. The submitted micropile locations are also shown.

The equipment that will be used to install the micropiles require 2.5 feet clearance from the center of the micropile hole to surrounding obstructions. The circles and arrows on the attached drawing indicate which micropiles do not have the required clearance and which direction of shift is preferred. The maximum shift is 4 feet, which occurs when a micropile is located directly below an internal bracing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to use the first contractor-proposed approach (number 1), that of using the TG0600 documents for micropile layout and shifting the micropiles up to 4 feet, however such shifts will be subject to design verification and SEOR approval following our receipt of final proposed locations. Note that the shifting of micropiles shall adhere to submittal notes 2 and 3 on sheet ML-1 of Submittal TG0300-622.2 (TA1020-316333A12.2). Micropiles shall not be installed in the buttress shafts.

The alternative contractor-proposed approach (number 2), that of using the submittal (TG0300-622.2) layout and applying submittal notes 2 & 3 is not acceptable as the approach does not consider submittal note 1 (which addresses the density of micropile layout).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

strut.

Please confirm that the micropile locations shown on the TG0600 documents are to be used for the micropile layout, and that a shift of up to 4 feet in the directions shown on the attached drawings is acceptable.

As an alternative, BBII would prefer to use the submitted layout which has fewer conflicts. Micropiles would be eliminated or added per notes 2 and 3 respectively on sheet ML-1 of the returned submittal. The submitted micropile layout contains 1858 each micropiles. The TG0600 documents contain 1860 each micropiles. By eliminating piles per comments 2 and adding piles per comment 3, the total quantity would be approximately the quantity in the TG0600 documents.

Please confirm which of the two alternative approaches to micropiles layout is acceptable, or if both approaches are acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0314	Permit Clarification	Closed	09/14/2012	09/24/2012	09/19/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference Specification:
01 14 10 - 2 1.2A

Pursuant to specification section 01 14 10 - 2 1.2A, the Contractor is directed to obtain permits from the San Francisco Department of Building Inspection(DBI) for work including, but not limited to: Excavation, Structural, Architectural, Mechanical, Plumbing, and Electrical.

To date TJPA has been acting as the permitting authority, and has distributed permits for work contracturally required to be authorized by the DBI.

Please confirm that W/O is to obtain these permits through the TJPA, not the DBI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI is based on an incorrect reading of the Specification by the Contractor. Paragraph 1.2 states ¿ Application for permits, regulatory permissions, approvals, and request for compliance inspections shall be performed as follows and in accordance with Appendix A of this section (01 14 10/APA) and as stipulated in Section 00 07 00, General Conditions.¿

- Refer to specification 01 14 10/APA regarding application for permits.

- Specification section 01 14 10 Paragraph 1.2A actually requires the Contractor to obtain approvals from the San Francisco Department of Building Inspection, not permits.

T-0315	Performance Test Micropile Layout	Closed	09/17/2012	09/27/2012	09/27/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 31 63 33
Reference Drawing: S1-2022

Drawing S1-2022 shows the Zone 1 performance test micropile on gridline E near gridline 2. BBII proposes to locate the Zone 1 test piles per the attached sketch. More than 1 test pile will be installed at this location. The additional test piles are to be installed at BBII's option for verification of design assumptions. They will be installed at no additional cost and will not take the place of any other test piles in other zones. Please confirm that it is acceptable to install the performance test micropiles at the locations shown on the attached drawing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to locate Zone 1 test pile and additional (at no additional cost) Zone 1 test piles in test pit area defined in attached RFI sketch. These micropile performance tests will only satisfy one of the required micropile tests in the specification.

T-0316	Becho's Request for Modification of Shafts T3.5 and T4.5	Closed	09/20/2012	09/30/2012	09/21/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ernie Cortez **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Specification Reference: 31.63.29
Drawing Reference: GT-2201

Reference attached Becho Letter BI-0271.

Becho recognized that the shaft installed on 9/13/12 (believed to be T3.5) was poured in the location of Buttress shaft T2.5. Attached is Becho's proposal to rectify the installation of Buttress Shaft T2.5.

Please confirm that Becho's proposal is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable. However, the shafts shall be placed symmetrically as shown on the drawings. That is, the overlap of the primary and secondary shafts shall be the same at each side. The Contractor's proposal to shift shaft T3.5 to the north is not acceptable.

T-0317 **Demolition and Excavation Limit Associated with the Sub Grade** **Closed** **09/21/2012** **10/01/2012** **09/27/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Joe Chapman **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 31-00-00
Reference Drawings: GT-2101, D-5100, S1-2022, M1-2022

Drawings D-5100 shows the demolition depth of the Test Buttress Shaft to EL -41.5', and the demolition depth of the 80 Natoma Piles to EL -44.5'. Please confirm that these elevations are sufficient for future trades, and slab depressions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor shall coordinate the depth of cutting / removal with the depth of earthwork required for mat slab depressions and / or the geothermal loop piping. The top of the Test Buttress Shafts shall be that required to receive the geothermal piping; the top of the 80 Natoma Piles shall be at least 1'-0" below the bottom of the geothermal piping.

T-0317.1 **BSE -Demolition and Excavation Limit Associated with the Sub Grade Follow-Up** **Closed** **10/01/2012** **10/01/2012** **10/09/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BSE Drawing M-0006 states that GHEX piping loops will be installed 12" below the mud slab.

Below Grade Drawing M-0006 (Issued with FO T-00010 R2) states that GHEX piping loops shall be installed 24" below
the mud slab, drop in elevation with the contours of any

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolish the drilled shaft prototype and the 80 Natoma shoring wall to 3'-0" below the subgrade elevation / bottom of mat elevation shown on the below grade package drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

depressions while maintaining 24" of depth, and offset where
required around Micropiles and Trestle Piles.

BSE Drawing D-5100 dictates a specific demolition depth of - 41.5' for the Drilled Shaft Prototype and - 44.5' for the 80
Natoma shoring wall.

Given the disparity above and the revision to pit locations within FO-00010 R2 W/O has detected the following conflicts
to Geothermal Piping Loops:

- 80 Natoma Shoring wall with Pit location at Gridline H-2 (- 44' - 9' Final Subgrade Elevation)

- Drilled Shaft Prototype (- 41' - 5" Final Subgrade Elevation)

Please specify a specific grade to demolish the aforementioned obstructions in order to avoid the GHEX piping loops
and advise as to any additional conflicts.

T-0317.2 **BSE - Buttress Demolition Limits Relative to Sub Grade Elevations** **Closed** **10/15/2012** **10/25/2012** **10/19/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Joe Chapman **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:
Please confirm that the demolition elevation limits within the response to RFI T-0317.1 also apply to the Zone 4 buttress shafts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
This is correct.

T-0317.3 **BSE - Demolition of 80 Natoma Wall and Prototype Buttress Shafts** **Closed** **12/19/2012** **12/26/2012** **01/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specification Reference: 02 41 01
Drawing Reference: D-2210

Demolition of the prototype shafts and the 80 Natoma CDSM wall are required in order to allow clearance for the geothermal piping. BBII proposes to only demolish portions of these structures which would interfere with the geothermal piping. The prototype buttress shafts would be demolished to elevation -41.42 with depressions cut out where the piping crosses. The 80 Natoma CDSM wall would be demolished to allow the piping to be installed. The CDSM piles would be otherwise cut off 4" below mud slab subgrade. See attached sketches.

Please confirm this is acceptable.

No. The excavation limits for BSE contractor 80 Natoma/Buttress prototype and CDSM prototype are to be demolished to a depth of -44'.5 in their entirety.

The demolition limits for BSE contractor are to be per contract. REF: BSE Drawing D-2210 and RFI 317.3 response.

CSM Prototype shoring wall -44'.5 +/- See D-2210 Note 10 for the entire length
CDSM 80 Natoma shoring wall -44'.5 +/- See D-2210 Note 11 for the entire length
80 Natoma Piles -44'.5 +/- See D-2210 Note 11 for the entire length
Buttress prototype shafts -44'.5 +/- See D-2210 Note 9: This is CHANGED from -41.5' (CR forthcoming) and is now to be demolished to a depth of -44'.5 for the entire length per this RFI series.

Additional Costs associated with ASI No. 0099 Field Order 08-04-CMGC-000-T-00014 which updated pit depths and locations impacting the Mat Slab (Transmitted to WOJV on 12/12/12) are a separate issue than this RFI.

REFERENCES:

BSE Drawing D-2210 and RFI 317.3 response.
BSE RFI 317.3 response.
BSE Drawing set Detail 5/S1-3003.Tolerances of final subgrade is +/- 0.5" per BSE Spec. 31-00-00 Para 3.17
ASI No. 0099 was issued to WOJV on 12/12/12 as Field Order 08-04-CMGC-000-T-00014 with updated pit depths and locations impacting the Mat Slab.
BGP Contractor Submittal Geothermal Piping TG0601-009 and BGP Trenching Spec. 31-23-34

T-0317.4	**BSE - Zone 4 Demolition and Excavation Associated with Sub Grade**	**Closed**	**06/18/2013**	**06/28/2013**	**07/08/2013**	**Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference RFI: T-0317.1, T-0317.2

Please confirm that demolition and excavation in areas of buttress shafts in Zone 4 shall be at the final subgrade elevation of 41' - 5". The Geothermal Subcontractor shall provide demolition and excavation for their geothermal piping in accordance with specification section 31 23 34.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Confirmed that Zone 4 Buttress removal area final subgrade elevation of 41' - 5" per BSE Contract drawing GT-2103.

Which Subcontractor provides "demolition and excavation for geothermal piping" is a CM/GC coordination issue.

NOTE:

1. Subgrade elevation of pits is per BSE Contract drawing GT-2103 as modified by FO T-00010 R2.

2. Demolition and excavation depths for geothermal piping is not found in specification section 31 23 34.BGP Contract drawing 4/M1-5002 and notes on BGP Contract drawing M-0006 provide detail on geothermal piping depths.

T-0318 **Verification of Sump Pit and Elevator Pit Locations and Dimensions** **Closed** **09/24/2012** **10/04/2012** **09/25/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Jeff Molloy **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference Specification 31 00 00

The Below Grade Package drawings identify the depression required in the sub grade for future construction of elevator pits and sump pits. The below grade package drawings do not correspond with the Buttress, Shoring and Excavation (BSE) contract drawings for the location depth and size of the elevator and sump pits.

Please confirm the TG06 drawings supersede the TG03 drawings and should be used for construction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent of releasing TGO600 drawings to the CM/GC was solely for coordination purposes between the Below Grade and Buttress/Shoring/Excavation trade packages.

Please proceed accordingly

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0318.1	**Verification of Sump Pit and Elevation Pit Locations and Dimensions**	**Closed**	**10/03/2012**	**10/13/2012**	**10/03/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Jeff Molloy **To:** Webcor Construction LP Joanne Filipas **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Previous response to RFI 309 does not provide the information required for BBII to proceed. It is BBII intent to commence excavating sump and elevator pits per the initial Buttress, Shoring and Excavation contract drawings, unless clearly directed otherwise.

Please provide most current drawings that indicate elevator and sump pit locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Field Order 10R2.

T-0319	**CDSM Connection to Waler Breaks**	**Closed**	**09/25/2012**	**10/05/2012**	**10/01/2012**	**Potentially**	☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Pursuant to 9/25/12 2:34pm W/O / TCCO telephone conversation, please find attached BBII's RFI-314 Project RFI T-0319 CDSM Connection to Waler Breaks.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Due to file size response is attached.

T-0319.1	**Request for evaluation of necessity of Northwest corner channels levels C&D.**	**Closed**	**10/10/2012**	**10/20/2012**	**10/11/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

During the 10/10/12 MRP meeting ARUP indicated channels, pursuant to RFI response #T-0319, were not required at the Northwest corner levels C&D. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is correct.

T-0320	**BSE - Ground Level Structural Beams at Gridlines 34 and 34.8**	**Closed**	**09/25/2012**	**10/05/2012**	**10/02/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: 100% Superstructure Package Drawings S1-2307, 1/S1-3206

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

S1-2307 calls out beam elevations on 1/S1-3662 and 1/S1-3663. Beam sections with dimensions are included on these elevation sheets.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

To coordinate the location of the Beale St. Bridge with future work please provide the dimensions for the Ground Level structural beams located at Gridlines 34 and 34.8.

T-0321 **Additional Excavation and Bracing Constraints at A Line and 301 Mission** **Closed** **09/26/2012** **10/06/2012** **10/05/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Pursuant to discussions with ARUP at the Turner weekly meeting held on September 12, 2012, BBII is requesting the following information regarding the additional excavation and bracing requirements along the A line adjacent to the western and eastern edges of 301 Mission:

-Limits of the work

-Sequence of demolition, excavation and bracing (waler and struts). ie .. do we excavate for installation of one strut or waler at a time or can we expose more than one strut or waler location concurrently.

-Wall support details, for example there were discussions as to maintaining a soil berm between different stages of the work. Please provide the width, height and length of berm or other support needed.

-Length of exposed wall area and duration of exposure

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Due to file size please find the response attached.

T-0321.1 **Additional Excavation and Bracing Constraints at A Line and 301 Mission** **Closed** **10/10/2012** **10/20/2012** **10/19/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII would like to confirm the following direction received at TCCO's weekly meeting on October 10, 2012 in regards to the limits of the berm and sequence of work referenced in the response to RFI T-0321.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sequencing of activities proposed by the Contractor adequately addresses our concerns regarding the Contractor's means and methods which in the other portions of Zone 3 have caused over 1.5

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The following work will take place between CDSM beams 251 and 276 along the A-Line and the southern edge of Zone 3's trestle.

Demolition: Upon completion of the demolition and removal of the basement walls and footings BBII is to place an earth berm to elevation +10.00, extending 25 feet from the face of the CDSM wall into the excavation and having a 3:1 slope at the southern hinge point of the berm.

Bracing: Walers 24 and 48 as well as Struts 49 and 50 will be installed within a 6 working day window to address ARUP's concern of overexposure from the Millennium's Building's foundation pressure on the CDSM wall. During the installation of these walers and struts the berm as described in the demolition section above will remain between CDSM beams 260 and 271 until completion of the bracing of walers 24 and 48 and struts 49-50. The sequence will be repeated for installation of walers 25 and 49 as well as struts 51 and 52 with the exception of the earth berm easterly limit will be CDSM beam 276 (centerline of buttress A line pile).

inches of lateral movement into the excavation at locations where excavation has not even progressed past the first level.

Additionally, as discussed in the Movement Review Panel Meeting the morning of October 17, 2012, Arup asked the Contractor to consider excavation under the Fremont Street bridge to progress from south to north. The Contractor agreed that this would be beneficial and possible.

T-0321.1R **Additional Excavation and Bracing Constraints at A Line and 301 Mission REVISIO** **Closed** **10/26/2012** **11/05/2012** **10/26/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Dean Wallahan **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII would like to confirm the following direction received at TCCO's weekly meeting on October 10, 2012 in regards to
the limits of the berm and sequence of work referenced in the response to RFI T-0321.

The following work will take place between CDSM beams 251 and 276 along the A-Line and the southern edge of Zone 3's trestle.

Demolition: Upon completion of the demolition and removal of the basement walls and footings BBII is to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

This direction is consistent with the base contract documents and is solely the result of the action trigger levels experienced in Zone 3 as a result of BBII's excavation methods. Additionally, as discussed in the 10/17/12 MRP meeting, BBII agreed the excavation beneath the Fremont Street bridge was to progress south to north.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

place an
earth berm to elevation +10.00, extending 25 feet from the face of the CDSM wall into the excavation and having a 3:1
slope at the southern hinge point of the berm.

Bracing: Walers 24 and 48 as well as Struts 49 and 50 will be installed within a 6 working day window to address ARUP's concern of overexposure from the Millennium's Building's foundation pressure on the CDSM wall. During the
installation of these walers and struts the berm as described in the demolition section above will remain between
CDSM beams 260 and 271 until completion of the bracing of walers 24 and 48 and struts 49-50. The sequence will be
repeated for installation of walers 25 and 49 as well as struts 51 and 52 with the exception of the earth berm easterly
limit will be CDSM beam 276 (centerline of buttress A line pile).

T-0322 **BSE - Dewatering Pipe Termination at System Removal** **Closed** **10/03/2012** **10/13/2012** **10/08/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Upon system removal, specification 31 23 19 (BSE Documents) requires the contractor to fill dewatering pipes with grout, cut, and cap to an elevation 36" below subgrade. Sheet A1-8711 (Below Grade Documents) shows in detail the final configuration of the dewatering pipes and requires that they are capped at 8" below Top of Mat Slab elevation.

Will Cutting and Capping of the dewatering pipes be required at 36" below subgrade?

Assuming the dewatering pipes will be cut and capped at 8" below Top of Mat Slab elevation:
Is it acceptable to have a void space in the abandoned

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor shall follow the details on sheet A1-8711 of the Below Grade Package.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

dewatering pipes between the grout terminating 36" below subgrade elevation to the Bentonite at 14" below top of mat slab?

T-0322.1 **BSE - Dewatering Pipe Termination at System Removal Follow-Up** **Closed** **10/08/2012** **10/18/2012** **10/10/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In follow up to RFI T-0322:

Upon dewatering system removal BSE Specification 31 23 19 3.9 requires that abandoned piping be filled with grout to an elevation of 36" below subgrade elevation consistent with the originally specified cut and cap elevation. Below Grade Drawing A-8711 does not specify a grout requirement for the dewatering pipes.

Is it acceptable to have a void space in the abandoned dewatering pipes between the grout terminating 36" below subgrade elevation to the Bentonite at 14" below top of mat slab consistent with the current contract documents?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No, a void space is not acceptable. The abandoned dewatering pipes are to be grout filled per specification 31 23 19. Follow detail 6/A1-8711 for dewatering pipe steel sleeve, waterproofing and mat slab block out. When the dewatering system is removed, the dewatering pipes are cut off, fully grouted to bottom of the block out and bentonite installed for the last 4" to the top of the sleeve. The a steel cap assembly is welded to the top of the sleeve and the mat slab block out grouted.

T-0323 **Modification of E-line Due to Shortened Shaft E3** **Closed** **10/03/2012** **10/13/2012** **10/03/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ernie Cortez **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Stephen McLandrich

Co-Author:

REQUEST:

Reference attached Becho Letter BI-0282.

An obstruction, believed to be the abandoned D3 casing was encountered during the excavation of Buttress Shaft E3. Please see attached proposal from Becho. We are requesting an expedited response, preferably by 3:00PM 10/3/12.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The plan outlined in Becho Letter BI-0282 is acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0323.1	BSE - Modification of E-line Due to Shortened Shafts	Closed	10/22/2012	11/01/2012	10/24/2012	Potentially	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Due to Buttress Shafts D1, E1, and E3 all being installed prior to Bedrock please confirm what if any further action is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Install "E4" with the 18" overlap on shaft E3. Place 6000 psi mix (#960PC3Z3).

Additional instruction regarding shaft D1 and possible augmentation of shaft E1 will be forthcoming pending analysis

---

T-0323.2	Modification of E-Line Due to Shortened Shaft E3	Closed	10/25/2012	11/04/2012	10/26/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per discussion at 10/25/12 Daily Buttress Meeting, please verify as to whether or not rebar needs to be installed in shaft E4.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Rebar does not need to be installed in shaft E4.

T-0323.3	Modification of E-Line Due to Shortened Shafts	Closed	10/25/2012	11/04/2012	10/29/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: GT-2201
Reference Specification: 31.63.29

Per RFI T-0323.1 Shaft E4 has been added with an 18" overlap on Shaft E3.

BBII considers drilling E4 tangent to E3 in order to avoid casing left in D3.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Install shaft as previously directed.

T-0323.4	BSE - Confirmation of Buttress E-4 Installation	Closed	01/17/2013	01/27/2013	01/18/2013	Potentially	☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Drawing: GT2201

Please confirm the verbal direction given after the 1/17/13 8:30 Buttress Meeting that shaft E-4 is to be tangential rather than secant as described in RFI response #T-0323.1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Supplemental shaft E-4 shall be install tangential to shaft E-3, with full penetration into bedrock, and with 6 ksi concrete.

T-0324 **BSE - Field Order T-00010R2 - Clouded Revisions** **Closed** **10/04/2012** **10/14/2012** **10/15/2012** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference: Field Order T-00010R2, TJPA CADD Standards Manual dated 15Nov10 and Sheet A1-8711 attached.

Field Order T-00010R2 included the TG06 Below Grade IFC drawings and specifications. It is unclear what revisions are to be incorporated by the TG03 contractor as the revised drawings do not included revision blocks and clouds consistent with the TJPA CADD Standards. For example, sheet A1-8711 (attached) was Issued For Construction with the TG03 BSE package. The revisions to this drawing through the design development and issuance with the TG06 bid/construction set are not clouded and the revision block does not include all previous revision descriptions. The revision block on the final Issued for Construction drawing should read as follows and all changes from the Rev 0 IFC issuance should be clouded in accordance with the TJPA CADD Standards:

No Date Description
Ä0 12/10/2010 Issued For Construction - Buttress/Shoring/Excavation
ÄA 4/18/2012 Issued for Bid - Below Grade Package
ÄB 8/17/2012 Issued for Bid - Below Grade Package - Addendum #2
Ä1 8/30/2012 Issued for Construction- Below Grade Package

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Issued For Construction drawings and specifications adhere to the TJPA CADD standards. Revision blocks and clouds are not used between Issued for Construction and Issued for Bid drawings. Furthermore, [For Reference Documents] may not require revision blocks and clouds; refer to Figure 6-1 of the TJPA CADD standards manual regarding SD and DD revision sets as an example. Contact the TJPA engineering staff regarding proper interpretation and use of the TJPA CADD standards. A workshop can be offered for project participants to provide clarity in drafting and CADD requirements.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm any previously issued IFC drawings that have since been revised will be re-issued consistent with the TJPA CADD standards. Also, please confirm all packages going forward will be in accordance with the TJPA CADD standards revision provisions.

T-0324.1 **Field Order T-00010R2 - Clouded Revisions** **Closed** **10/17/2012** **10/27/2012** **10/23/2012** **Potentially** ☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

In follow up to RFI response #T-0324 and the 10/17/12 BSE meeting it was clarified by AAI that what W/O was requesting in RFI #T-0324 was actually a "revision set for TG03". Please provide.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Ed Sum, TJPA: "No"

T-0325 **BSE - Excavation Sequence Relative to Installation of Struts 10 & 11** **Closed** **10/05/2012** **10/15/2012** **10/11/2012** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In an effort to expedite the installation of struts 10 & 11 at level D to help reduce eastward movement of the A-line wall, BBII proposes the following:

Excavate to level D for struts STD-10 and STD-11, and notch along the wall so that waler WD-05 may be installed, leaving the berm present beyond the notch. Excavate on the south side to the end of waler WD-67. Excavation to install strut STD-12 will proceed once enough struts have been installed at level C to advance the level D excavation to strut STD-12 per the specifications.

A sketch has been attached for reference. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We cannot respond to this RFI as the sketch shows an unsafe slope at the excavation.

T-0326 **Available Power Source for First Street Traffic Signal** **Closed** **10/15/2012** **10/25/2012** **10/19/2012** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

First Street Bridge Temporary Traffic Signal is due to be activated on 10/24/2012. The traffic signal controller cabinet requires electrical power to activate the signal. Being that BBII will not be drawing power off site temporary power (Skids 3 and 4), please advise and provide direction for the use of an available power source.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification 01-53-13 for Temporary Bridge does not require Traffic Signals at Trestle/Bridge intersection.

Existing Traffic Control (Cristy Box) infrastructure available in the north sidewalks of both First and Fremont Street. These are the closest traffic control infrastructure from the Temporary Bridges with conduit/boxes that contained previous traffic control signal wiring. There is also existing Traffic Control (Cristy Box) infrastructure available at the intersection with Howard Street.

First Street Bridge: WOJV Contract (RUP Project) did remove and salvage traffic signaling equipment and protected the infrastructure (boxes, conduits under sidewalk). Refer to RUP Drawing U-3301. Therefore believe it is in Webcor/BBII's scope to determine the best available power source.

Fremont Street Bridge: WOJV Contract (RUP Project) did remove and salvage traffic signaling equipment and protected the infrastructure (boxes, conduits under sidewalk). Refer to RUP Drawing U-3302. Therefore believe it is in Webcor/BBII's scope to determine the best available power source.

All work performed shall meet Specifications particularly with regard to sidewalk and street restoration upon install of underground electrical (conduits etc.)

T-0327 **GRD - Ground Rod Placement** **Closed** **10/16/2012** **10/26/2012** **10/31/2012** **Potentially** ☐

From: BASS Electric Jerry Brys **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

There are no dimensions shown for placement of the ground rods. Should we scale off the drawings or will a drawing be produced reflecting dimensions?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The placement of the ground rods and the ground ring does not require exact dimensioning. The ground rods are regularly spaced around the building perimeter at the building column lines approximately forty five feet on center. The rods are shown approximately two feet

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inside the foundation wall, but they can be closer to the foundation wall if the layout is coordinated with the geothermal system piping, micropiles and foundation wall supports.

Per Section 26 05 01, provide Contractor's Coordination drawings for review.

T-0328 **BSE - Re-Bracing Elevations** **Closed** **10/17/2012** **10/17/2012** **11/01/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Drawing GT-1112 stage 13 shows a maximum of 16' or 17' between level B struts and the lower level of rebracing. For Case West, level B supports are at elevation -3 ', resulting in the lower level of rebracing supports at elevation -20'. Internal bracing drawing sheet SH-4000 shows W21 strut support members on the underside of level C bracing. In order to install the lower level rebracing and accommodate the existing level C bracing, the lower level bracing will need to be installed at elevation -22'.

Similarly, the top level of rebracing is called out in stage 15 to be 3' below level A bracing. Top level rebracing will need to be 5' below level A bracing in order for struts to be clear of the overhead strut supports.

Please confirm that the 17' and 16' maximum dimensions in stage 13 and 3' maximum dimension in stage 15 will not be required if the rebracing design calculations show that it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Constructructability issues shall be reviewed by Webcor / Obayashi. This is acceptable pending review of submittal.

T-0329 **BGP - Proposed Construction Joint Layout** **Closed** **10/24/2012** **11/03/2012** **10/31/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference sketches: SCCI #1, SCCI #2

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed construction joint between gridlines G & K

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawing: S-0007
Reference Specification: 03 30 20

Per note CJ-2 on sheet S-0007 No horizontal construction joints will be permitted unless specifically shown in the drawings or approved in writing. Please confirm that the longitudinal construction joint shown between gridlines G and K is acceptable as it follows the micropile construction sequence and it will help the schedule with re-bracing in the Southwest Corner.

(assumed to be along grid J) is acceptable for the mat and Lower Concourse slab, however, please note the following comments:

1. Proposed construction joint(s) is not a horizontal joint.

2. Mat Pour Layout:
a) Per spec 03 30 20 3.2.B.1, joints in slabs "...shall be located within the central third of the span."
b) Per spec 03 30 20 3.2.A.4 "Foundation wall, lower concourse floor slab, and ground floor construction joints shall align with the location of the mat slab joint below."

3. Lower Concourse Pour Layout:
a) Per spec 03 30 20 3.2.A.4, max spacing of construction joint in Lower Concourse slab is 60 ft.
b) See comment 2a.
c) See comment 2b.

4. These proposed construction joints shall be included in a submittal per specifications.

T-0330 **BSE - Mud Slab Vapor Retarder** **Closed** **10/30/2012** **11/09/2012** **11/09/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing : A1-8711 S1-3003
Reference Specification: 03 30 00

Specification 03 30 00.3 .I.E, Vapor Retarder Placement:: See Division 7, Thermal and Moisture Protection, describes installation of vapor retarder. Specification 03 30 00.3 .4.A.13 states "Place vapor retarder directly below slabs on grade as specified in contract documents."

Vapor retarder is not referenced on Detail 5, Mud Slab Detail, on sheet S1-3003, or on any of the slab penetration details on sheets A1-8711 and S1-3003 .

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Vapor Retarder is not required for the Mud Slab.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please verify whether or not vapor retarder is required.

T-0331 **BGP - Geothermal Maximum Horizontal Loop or Ground Loop Zone Length** **Closed** **10/31/2012** **11/10/2012** **11/05/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Reference: 23 57 34

Please confirm that there is no restriction on GHEX Horizonal Loop or Ground Loop Zone length.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no maximum length for the headers. Most headers should be roughly the same length, the headers are set up in reverse return fashion to allow for self-balancing of the loops. All headers will ultimately be balanced at the entrance to building allowing for some variation in header length to accommodate building entrance locations.

All loops on a single header should be the same length. The number of loops attached to a single header has been limited to 10.

T-0332 **BSE - Micropile W203 Relocation** **Closed** **11/01/2012** **11/11/2012** **11/02/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Micropile 203 as laid out is too close to a piezometer well. BBII proposes moving pile W203 East 4'-9.5" and South 1 '-.75". See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving Micropile 203 as proposed.

T-0333 **BSE - Utilization of the Mat Slab for Re-Bracing Reactions** **Closed** **11/01/2012** **11/11/2012** **11/07/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Is utilizing the mat slab for re-bracing reactions (via rackers) acceptable provided it meets the provisions set forth within 31 55 00 1.5 Q in regards to connections, penetrations, imbeds, and restoration?

Accept Suggestion: ☐

Structurally, it is acceptable to utilize the mat slab for re-bracing provided provisions in specification article 1.5.Q are met as well as specification article 1.5.R, which shall also apply for the mat (i.e. reactions shall not exceed capacity of mat). Submit re-bracing for review per submittal process, including calculations that show reactions onto permanent structure do not exceed capacity of permanent structure.

Contractor shall outline to TJPA if there will be a cost and schedule reduction for this Proposed Alternate. Contractor shall outline any perminent impact on the finished building related to this proposal. See specification requirements regarding Proposed Alternates.

Contractor shall submit further information on this Proposed Alternate for review prior to full acceptance of this direction.

T-0333.1 | **BSE - BSE - Utilization of the Mat Slab for Re-Bracing Reactions Follow-Up** | **Closed** | **11/07/2012** | **11/17/2012** | **11/13/2012** | **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Response to RFI T-0333 stipulates that the contractor:

"..submit further information on this proposed alternative.."

This statement implies that the utilization of the mat slab for rebracing reactions is a deviation from what is required by contract. Please identify the primary method the rebracing design is to employ in order resist gravity, seismic, or other additional loading to be resisted and/or provide restraint against buckling, torsion, or other function as necessary per the design to provide required capacities of elements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0333.2	**BSE - Utilization of the Mat Slab for Re-Bracing Reactions Follow-Up**	**Closed**	**11/09/2012**	**11/19/2012**	**11/20/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

RFI T-0333 inquired if utilizing the mat slab for re-bracing reactions was acceptable provided it meets the provisions set forth within 31 55 00 1.5 Q in regards to connections, penetrations, imbeds, and restoration.

The response stated that structurally it was acceptable provided the contractor outline if there will be a cost and schedule reduction pursuant to the specification requirements for "Proposed Alternatives". W/O is unable to locate a specification provision for "Proposed Alternatives" in the TG03 or TG06 contract documents.

Is utilizing the mat slab for rebracing reactions acceptable pursuant to the TG03 or TG06 contract documents?

If acceptable, please identify the specification section for "Proposed Alternatives" within the TG03 or TG06 documents so cost and schedule reduction proposals can be provided pursuant to the applicable requirements.

Additionally, please identify the TG03 and/or TG06 contract requirements for secondary bracing (31 55 00 1.3D) geometry.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT Response: As stated in the original RFI T-0333 response, "...specification article 1.5, which shall also apply for the mat (i.e. reactions shall not exceed capacity of mat). Submit re-bracing for review per submittal process, including calculations that show reactions onto permanent structure do not exceed capacity of permanent structure."

URS Response: If the load capacities to be provided by re-bracing elements are less than the design loading for bracing elements removed, then speficically identify this in the re-bracing submission. Any reduction of this loading requires specific explanation and specific review and approval.

T-0334	**BGP - Catch Basin Elevation at Gridlines 14 and B.3.**	**Closed**	**11/01/2012**	**11/11/2012**	**11/02/2012**	**Potentially**	☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: A1-2814

Please provide the elevation for the catch basin located along gridlines 14 and B.3.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At gridline 14 and B.3, Catch Basin Elevation is TOC - 37'-8" and the adjacent Sump Pit Elevation is TOC - 39'-8".

T-0335	**BGP - Contract Bury Bar for Support**	**Closed**	**11/05/2012**	**11/15/2012**	**11/10/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification: 03 30 00

Please confirm it is acceptable to displace a top mat 4th layer contract reinforcing bar and a bottom mat 2nd layer contract reinforcing bar one bar diameter every 6' - 0" +/- oc to support the mat reinforcing. A sketch is attached for reference and to graphically represent the proposed bar configuration.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not acceptable to displace/deviate mat rebar from contract layout.

NOTE: The RFI sketch does not graphically represent the orientation of mat reinforcement. See "Mat Bottom Rebar Notes" on S1-2022 and "Mat Top Rebar Notes" on S1-2052 as well as detail 3/S1-3005 for orientation of layers of mat reinforcement.

T-0336 **BGP - Wall Dowels Standard Hooks** **Closed** **11/05/2012** **11/15/2012** **11/10/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 20 00
Reference Drawings: SI-3201

Contract drawing S1-3201, Section 1 depicts the #11 vertical wall dowels with a terminator, typ. embedded into the mat foundation rather than a standard hook. Shimmick is requesting the option to utilize a #11 standard hook (1' - 7") orientated inward or a terminator as shown at these locations. Please verify that either option is acceptable for use.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed #11 standard hook for wall vertical bars is not acceptable as the inside wall bar would need to be hooked towards the outer bar and would result in congestion. Please provide vertical wall bars with terminators per contract drawing.

T-0337 **BGP - Bottom Mat Reinforcing Clear Cover to Edge** **Closed** **11/06/2012** **11/16/2012** **11/12/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 30 00
Reference Drawings: S1-3201

Contract drawing S1-3201 depicts the clear cover to the mat reinforcing as 6" along the edge. Please verify it is acceptable to extend the bottom mat reinforcing closer to the edge such that the clear cover along the edge is 2", the same as it is for the vertical wall reinforcement.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor - proposed modification to clear cover at mat edge is not acceptable as it would result in a congestion condition. Please provide contract drawing clear cover.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0338	BGP - Mat Reinforcing Clear Cover, Exterior Face Wall Vertical Clear Cover.	Closed	11/06/2012	11/16/2012	11/10/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 20 00
Reference Drawing: S1-3001 / S1-3201

Please confirm the clear cover to the bottom mat reinforcing is 3" as called out on contract drawing sheet S1-3001, typical detail 5. Additionally please verify if the outside face vertical reinforcing bars can be lifted such that clear cover to this bar is 6" from the concrete below as it is for the inside face vertical bar as depicted on contract drawing S1-3201.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 3" clear cover listed in detail 5/S1-3001 is for "concrete cast against and permanently exposed to earth", which does not apply to the mat. Bottom mat reinforcement clear cover is confirmed to be 3" per "Mat Bottom Rebar Notes" (note 7) on S1-2022.

The outside face vertical reinforcement bars may not be lifted. Provide contract drawing clear cover.

T-0339	BGP - Wall Reinforcing Clear Cover	Closed	11/06/2012	11/16/2012	11/15/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 20 00
Reference Drawing: S1-3201

Contract drawing sheet S1-3201 depicts extent lines showing the 2" clear cover to the vertical wall reinforcing bars. Please confirm that the cross ties will infringe on the 2" clear cover and that the design intent is to maintain the clear cover to the main vertical reinforcing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 2" clear cover to the vertical wall reinforcement on S1-3201 is confirmed.

The cross ties do occupy space within the 2" clear cover as depicted in section 1 and 4 on S1-3201.

T-0340	BGP - IDEA Machine	Closed	11/06/2012	11/16/2012	11/15/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 20 00
Reference Drawings: N/A

Shimmick would like to request the use of the Schnell IDEA Machine. The IDEA Machine pre-assembles grade beam, columns or other "boundary" type elements by a process of resistance welding three (3) 1/4" ASTM 82 wires to the ASTM A706 reinforcing ties. This process provides a more secure and accurate tie configuration with

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to use contractor-proposed use of machine-welded holding wires to column ties and beam stirrups only provided the following conditions are met:

1. Column ties and beam stirrups must be ASTM A706.

2. Holding wire bars shall conform to ASTM A82 or

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a more effective and timely installation. Attached is CRSI's engineering data report #53 which provides an in-depth explanation of the process as well as their acceptance of the same. Also attached is a reference list of recent projects where this process has been approved and utilized as well as a testing report from Christensen Materials Engineering. Please confirm if this is acceptable.

A496.

3. Holding wires are only allowed to be welded to column ties and beam stirrups #5 or smaller.

4. Holding wires are not to eliminate any longitudinal bars or interfere with flow and placement of concrete.

5. Verification tests: Contractor shall submit results of verification tests conducted during the month of tie/stirrup production from a Certified Testing Laboratory for review. Tests shall be performed on 3 samples of bar sizes to match project conditions. Samples shall have a gage length of 24 bar diameters with the holding wire weld located in the middle quarter of the length. Test the samples in tension and report elongation of the sample at fracture, the location of the fracture and the type of fracture. Test and production bars to be welded shall be ASTM A706.

6. Production tests: If verification tests are acceptable, production tests will be required only if there is deviation from the accepted process or if the inspector identifies potential defects.

7. Fabrication shall conform to the following:

a.) Holding wire welds shall be located a minimum of 2 tie/stirrup diameters away from bends and/or cold-worked regions of stirrups.

b.) Maintain a minimum clear cover from the face of the concrete to the ties/stirrups as noted on the drawings and maintain clear cover to holding wire as required by ACI 318.

c.) If field installation requires adjustment of tie/stirrup locations due to mis-coordination or mis-placement, adjustments/corrections shall be responsibility of Contractor.

d.) Holding wires shall be located a minimum of 2 inches clear from main longitudinal bars.

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e.) Longitudinal steel may NOT be welded to ties/stirrups.

8. Submit this weld procedure with applicable concrete reinforcement submittal.

T-0341 **BGP - One Piece Ties** **Closed** **11/06/2012** **11/16/2012** **11/10/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Shimmick would like to request the use of the "one-piece" or "serpentine" ties at this project. These ties are made by an automatic bender that bends a column or boundary element tie from one continuous piece of rebar. The end result is the same perimeter and cross tie configuration as the design in the contract documents. Please confirm if this procedure is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor-proposed approach to use "one-piece" / "serpentine" ties is acceptable as long as contract document rebar configuration is provided. Submit per reinforcement submittal process

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T-0341.1 **BGP - Type D8 Column Serpentine Ties** **Closed** **12/04/2013** **12/11/2013** **12/10/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3305 and RFI T-0341.

The response to RFI T-0341 accepted the use of one-piece/serpentine ties for the columns as proposed by Gerdau. Gerdau has found that the fabrication of a single piece serpentine tie for the type D8 column could pose safety risks. Therefore, Gerdau is proposing to fabricate the type D8 column ties with two pieces of serpentine ties. See the attached Gerdau sketch SK- T-0341.1 for details.

Please confirm the alternate serpentine ties as shown in the attached sketch is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/9/2013
RESPONSE:
Proposed serpentine tie configuration for Tie Type D8 will conflict with anchor bolts for the steel column above. Refer to Sheet S1-3305 for the design tie configuration for Column C7 (Tie Type D8). However, proposed Serpentine tie configuration can be used up to an elevation within the column where anchor bolts are not present. Where anchor bolts are present, loose ties that confirm with the design configuration shall be used to clear the anchor bolts. Note the following anchor bolt embedment lengths for different anchor bolt configurations:

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- For Column C7 with Type T anchor bolts, anchor bolts are embedded 3'-8" from the top of the Lower Concourse Moment Frame beam.
- For Column C7 with Type TT anchor bolts, anchor bolts are embedded 6'-8" from the top of the Lower Concourse Moment Frame beam.
- For Column C7 with Type TTT anchor bolts, anchor bolts are embedded 20' from the top of the Lower Concourse Moment Frame beam.

See Sheet S1-5051 for further information on anchor bolts.
Also, per RFI T-0924, it is acceptable to eliminate/lower column cross ties that interfere with the shear key block out. (Ties and hoops that do not interfere shall remain.) This information should also be considered in finalizing the detailing/fabrication of the column ties near the top of the concrete columns.

T-0342 **BGP - Mat Slab Reinforcing and Lap Ratio** **Closed** **11/06/2012** **11/16/2012** **11/20/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In follow up to the 10/31/12 Value Engineering prosal meeting, please confirm it is acceptable to change the grade 60 #11 bars to grade 75 #10 bars in the mat slab reinforcing.

Please provide the increased lap ratio required for the change in grade and bar size.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is structurally acceptable to change the grade 60 #11 bars to grade 75 #10 bars for the mat slab reinforcement.

Tension lap splice length for #10, grade 75, category 1*, top bars*, f'c 5 ksi = 115 in.
Tension lap splice length for #10, grade 75, category 1*, other bars*, f'c 5 ksi = 89 in.

(* = See 1/S1-3001 for notes/definitions)

Per discussion at 11/16/12 VE meeting, CR for VE items will be issued in the future.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0343	BSE - Micropile W072 Relocation	Closed	11/09/2012	11/19/2012	11/12/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Micropile W072 as laid out is too close to overhead strut support BA-29. BBII Proposes moving pile W072 East 1' to provide adequate clearance See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving Micropile 072 as proposed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0344	Micropile W073 and W074 Relocation	Closed	11/12/2012	11/22/2012	11/13/2012	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Micropiles W073 and W074 as laid out are too close to overhead strut support BA-28. BBII proposes moving pile W073 West 2' and North 0.5' and pile W074 East 2' and South 0.5' to provide adequate clearance. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving Micropile 073 and Micropile 074 as proposed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0345	BSE - CDSM Wall Parallel Stiffness for Bridge Design	Closed	11/13/2012	11/23/2012	11/15/2012	Potentially	☐

From: Balfour Beatty Infrastructure, Inc. Ural Yal **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference: 01 53 13.1.3D

BBII has recently received information in a non bridge design related correspondence that could impact the already designed, permitted, and constructed First and Fremont St. Bridges. In an ARUP memo dated October 5th, 2012 bullet #2 states:

"The Contractor has verbally attested that they designed the diagonal corner braces using an interpretation of Note 11 on sheet GT-1111 which yielded a key assumption which is that the CDSM wall is infinitely strong and infinitely stiff. This assumption is an inaccurate and unreasonable interpretation of this note and in no way does the note infer this".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Note 5 on GT-1111 which requires the Contractor to analyze the soldier piles if the soldier piles are subjected to loads other than those shown on the drawings. Refer to the Contract Documents for the design strength of the CDSM material.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Although this comment is in reference to the internal bracing design, it also relates to the temporary bridge design. As noted on page 156 of the First and Fremont St Bridge structural calculations (attached), this same interpretation of note 11 on GT-1111 was used for the abutment shear key design. The Bridges have been designed, reviewed and approved by DPW under with the assumption that no additional deformation occurs at the base of the abutments. If in fact the CDSM wall is truly NOT infinitely strong or infinitely stiff parallel to the wall, BBII requests a value from the CDSM engineer of record that can used in our re-evaluation of the First and Fremont Bridges to ensure the existing design remains in compliance with the design criteria. Additionally this value would be used in the re-design of the Beale St. Bridge.

T-0346 **BGP - Mat Slab Maximum Aggregate Size** **Closed** **11/15/2012** **11/25/2012** **11/21/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference 30 30 20

Shimmick is requesting approval of 1 inch nominal maximum aggregate size in lieu of the 3/4 inch nominal maximum aggregate size for the Mat Slab concrete. Shimmick's backup data indicates that concrete made with larger aggregate size (1 inch instead of 3/4 inch) produces lower drying shrinkage values mainly due to a reduction in the water consumption of the mix and a reduction in paste content.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed use of 1" nominal max aggregate size for the mat slab concrete is acceptable. Submit mix designs through submittal process.

Jeff Thiel Per discussion at 11/16/12 VE meeting, a CR for VE items will be issued in the future.

T-0347 **Trim Steel Requirements for the Mud Slab** **Closed** **11/19/2012** **11/29/2012** **11/29/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Specification: 03 20 01
Reference Drawing: S1-3003

Please confirm that trim steel will not be required. If trim steel is required, provide the details for trim in the 4" mudslab where the #4 bars @ 18" are interrupted. Please reference the attached sketch.

RFI question is not clear and is inconsistent with the referenced documents. Revise and resubmit the RFI with a clear question.

The mud slab is scope for Package TG03 in which the rebar shop drawing (TG0300-340.0, Item TZ1020-032001A06.0) has already been approved. The referenced specification does not apply to the mud slab.

T-0347.1 **BSE - Mud Slab Trim Rebar** **Closed** **12/12/2012** **12/22/2012** **12/18/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Submittal: TG0300-340
Reference Sketch: 12B035_SK-1

Upon further review of contract requirements subsequent to the approval of the mud slab rebar shop drawings (TG0300-340) it does not appear that trim steel is required for penetrations in the mud slab.

Please confirm that trim steel at penetrations in the mud slab will not be required pending submission of a follow up "For Record Only" mud slab shop drawing submittal.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Trim steel at penetrations in the mud slab will not be required.

T-0348 **BSE - Micropile W235 Relocation** **Closed** **11/20/2012** **11/30/2012** **11/20/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Micropile W235 as laid out cannot be effectively installed from the Trestle. BBII proposes moving pile W235 North 2' to provide adequate clearance. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving Micropile 235 as proposed.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0349	**BGP - Construction Joint Layout**	**Closed**	**11/20/2012**	**11/30/2012**	**11/21/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Reference Specification: 03 30 20.3.2.A.3

Per specification 033020.3.2.A.3 the maximum construction joint spacing in the mat slab is 120 feet (E/W direction), 3.2.A.4 maximum construction joint spacing in the foundation wall, lower concourse slab, ramp slab, interior walls,and the ground floor concrete slab is 60 feet. Foundation wall, lower concourse floor slab, and ground floor construction joints shall align with the location of the mat slab joint below and 3.2.B.1 construction joints in floor slab shall be located within the central third of the span. Due to the moment frames along grid lines V, W, and X being angled Shimmick see's the attached drawings as the only viable contruction joint layout to comply with all set forth specifications. Please advise if the mat slab, foundation wall, and lower concourse construction joint layout is acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFIs shall be used for interpretation or clarification of the Contract Documents. RFIs requesting acceptance of items required to be submitted through the submittal process are inappropriate for the RFI process and will be rejected.

T-0349.1	**BGP - Construction Joint Layout**	**Closed**	**11/26/2012**	**12/06/2012**	**12/07/2012**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per specification 03 30 20.3.2.A.3 the maximum construction joint spacing in the mat slab is 120 feet (E/W direction), 3.2.A.4 maximum construction joint spacing in the foundation wall, lower concourse slab, ramp slab, interior walls, and the ground floor concrete slab is 60 feet. Foundation wall, lower concourse floor slab, and ground floor construction joints shall align with the location of the mat slab joint below and 3.2.B.1 construction joints in floor slab shall be located within the central third of the span.

Due to the beam configurations at the South West radius of the train box the following deviations from the aforementioned requirements will be required:

1.) A construction joint will need to pass through a Moment Frame Beam along Grid Line X near Grid Line H in the attached sketch.

2.) Slab construction joints at two locations will not align

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Q1.) Contractor-proposed construction joint through the Lower Concourse MF beam is acceptable provided it is located in the middle third of beam span.

Q2.) Construction joints shall align with mat slab and wall construction joints.

Additional comments:

A.) The mat construction joint at GL 1-J shall align with a wall construction joint.

B.) Include overlay of trestle pier layout in formal joint layout submittal.

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with the mat slab or wall construction joints along the radius wall between Grid Line Wand Grid Line 5.

Please confirm these proposed deviations would be acceptable pending evaluation of a full contract joint location submittal.

T-0350 **BGP - Mat Slab Penetration Waterproofing** **Closed** **11/21/2012** **12/01/2012** **11/28/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specifiction Reference: 07 12 10
Drawing Reference: A1-8711

Please reference Drawing Sheet A1-8711, Laurenco E-Mail and Stamped Shop Drawing Details. Penetration details on drawing sheet Al-8711 call for 4 inch wide butyl tape to wrap around the mat slab penetrations prior to pouring of the mud slab. The specifications call for all shop drawings to bear the manufacturer's stamp of approval. Laurenco (manufacturer) has indicated that they require the butyl tape to extend 4 inches minimum past the top of the mud slab. Please review and advise as this does not match the as bid details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As recommended by the waterproofing manufacturer's (Laurenco) specifications and written recommendation for the waterproofing system as you outline in the RFI question, the TJPA representative does not object to extending the butyl tape 4 inches minimum past the top of the mud slab.

T-0350.1 **BGP - Mat Slab Penetration Waterproofing** **Closed** **12/06/2012** **12/16/2012** **12/13/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification:07 12 10
Reference Documents: A1-8711

Futher to the engineers response to RFI T-0350, the extension of the butyl tape conflicts with the casings that are required around the dewatering wells, trestle piles, bridge piles, and pin piles. Please provide revised details at each of the aforementioned locations to accommodate

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For details 2, 3 and 5 on A1/8711 the butyl tape can extend 4" above the mud slab. However on details 4 and 6 on A1/8711 the butyl tape at the penetration does not 'tie off' on to the waterproofing membrane. For these details the waterproofing does not engage with the butyl tape at the mud slab penetration, the steel sleeve is in the same plane as the butyl tape, therefore the butyl tape cannot extend above the mud

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the extended butyl tape.

slab. The details will not be revised.

The Contractor's shop drawing submittal is to be revised to show the butyl tape's relationship to the waterproofing membrane and other elements of the assembly. Submit the revised shop drawing with manufacturer's recommended detail for the butyl tape for TJPA Representative review.

T-0350.2 **BGP - Mat Slab Penetration Waterproofing** **Closed** **12/20/2012** **12/30/2012** **12/21/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: A1-8711

SCCI would like to confirm conversations concerning the Butyl tape and Mud Slab Penetrations. From the meeting held 12/19/2012, the design Engineer mentioned that the Butyl tape at the Mud Slab Penetrations does not serve as a waterproofing purpose, but rather a bond breaker between the concrete and the steel penetrating through the mud slab. Because of this, the Engineer stated the Butyl tape did not need to be extended above the Mud Slab and could stop at the penetration slab.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

With the exception of the tie down WP detail 2/A1-8711, the Butyl tape at the Mud Slab Penetrations does not serve a waterproofing purpose, but rather a bond breaker between the concrete and element penetrating through the mud slab. On 2/A1-8711 the butyl tape does engage the waterproofing and must extend above the mud slab.

T-0351 **BGP - Grace Eclipse Floor 200** **Closed** **11/26/2012** **12/06/2012** **11/26/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference Specification: 03 30 20

Eclipse Floor and Eclipse Plus admixtures were replaced by a new generation of drying shrinkage reducing admixtures Eclipse Floor 200 and Eclipse 4500. This new

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to use contractor-proposed Eclipse products pending acceptable strength test results.

Submit substitution request for products not listed in

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family of admixtures is equivalent to BASF Tetraguard and based on our experience we should be able to achieve project specifications on drying shrinkage. CEMEX has been using the two new products for more than two years with excellent results. Attached, please find the communication from Grace Construction Products about the two new shrinkage reducing admixture products. Please verify these eclipse products are acceptable for use on this project.

specifications.

T-0352 **BGP - Commissioning of Ground Loop Heat Exchanger** **Closed** **11/26/2012** **11/26/2012** **11/30/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: 23 57 34 3.5
Please confirm that commissioning will not be required for the Ground Loop Heat Exchanger.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

With reference to 23 57 34 3.5, the ground loop heat exchanger and the Geothermal system as a whole shall be commissioned with Enovity witnessing and overseeing the completed work by the geothermal sub-contractors, including but not limited to submittal reviews, installation verifications including flush, clean and treatment procedures, controls pre-functionals, functional testing and on-going performance validations. Enovity specifications covering this scope of work are included under Division 1 specification 01 91 00 (General Commissioning Requirements) and 23 08 00 (HVAC systems Commissioning). Please review these specifications.

T-0352.1 **BGP - Commissioning of Ground Loop Heat Exchanger Follow-Up** **Closed** **11/30/2012** **12/10/2012** **12/07/2012** **Potentially** ☐

From: Webcor Construction LP David Fields **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In reviewing the issued for construction documents W/O is unable to locate specification section "01 91 00 General Commisioning Requirements" or "23 08 00 HVAC Systems Commisioning". Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

To clarify, specification section 01 91 00 and 23 08 00 have not been issued and do not apply to this work. The answer to RFI T-0352 is superseded by this RFI reply. Specification section 23 57 34 shall be used by the Contractor to fully furnish, install and provide pre-

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functional testing and documentation to prove the design requirements prior to back-fill and post back-fill. A TJPA representative will review the results of the Contractor's commissioning efforts. All of the necessary pre-functional requirements for the below grade package are provided in specification section 23 57 34.

T-0353 **BSE - Micropile W107 Relocation** **Closed** **12/04/2012** **12/14/2012** **12/11/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Micropile W107 as laid out is in conflict with Pin-pile #15.

BBII proposes moving Micropile W107 North 0.5' and West 3' to provide adequate clearance. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving Micropile W107 as proposed.

T-0354 **BSE - Sump Pit Location and Dimension** **Closed** **12/06/2012** **12/16/2012** **12/11/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference: 31-00-00
Reference Drawings:S1-2022, S1-3006

Drawing S1-2022 and S1-3006 do not have all necessary dimensions to properly excavate the Sump Pit on the North Side of Zone 1 between GL 4 and GL 5. Please provide the dimension to the eastern edge as indicated in blue on Drawing S1-2022.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The requested dimension is 4'-9".

T-0355 **BSE - Zone 4 Instrumentation Pad Demolition** **Closed** **12/11/2012** **12/11/2012** **12/18/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Please reference section 10 on contract drawing GT-5102. The 1ft thick concrete instrumentation slab extending beyond the face of the A line CDSM wall into zone 4 will be demolishing with the tops of the buttress shafts during our excavation of the first level of zone 4. This will affect the sensors in the slab.

Please confirm that this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The instrumentation slab shall not be demolished. The slab shall remain in place as shown on the drawings.

T-0355.1 **BSE - Zone 4 Instrumentation Pad Demolition** **Closed** **01/30/2013** **02/09/2013** **02/07/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per conversation in previous MRP meetings after RFI T-0355 was answered, BBII noted that the instrumentation protection slab which is to remain in place as seen on section 10 of contract drawing GT-
5102 as directed by RFI T-0355 response prevents survey markers from being placed on the top of soldier piles. Concerns were raised from the owner's design team suggesting that this slab may have to be
removed.
Please confirm that RFI T-0355 was answered correctly and the instrumentation protection slab is to remain in place.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The portion of the instrumentation protection slab which is inside the face of the excavation shall be removed as part of the BSE contract documents. This is specifically covered in specification section 31 00 00, article 3.8 C as well as in details 3 and 7 on drawing GT-5101.

T-0356 **BGP - GEOTHERMAL - Loop Soil Compaction** **Closed** **12/11/2012** **12/21/2012** **12/17/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specifications: 31 23 34 3.3 F
23 57 34 3.1 D
23 57 34 1.2 A.3

Per Specification 31 23 34, page 6, paragraph 3.3, F., soil is to be compacted to 95% maximum dry density. Specification 23 57 34, page 4, paragraph 3.1, D., S3H is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per spec section 23 57 34 loose soil shall be used by the geothermal contractor to backfill the trenches where the HDPE ground loops are located to avoid any damage to the pipes during the process. Once the trenches have been backfilled per section 23 57 34 and the piping is protected the soil can be compacted as required by section 31 23 34.

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to backfill per IGSHPA with loose soil.

Please confirm S3H is to backfill the geothermal loop per IGSHPA standard section 23 57 34, page 1, 1.2, A. 3.

T-0356.1 **BGP - GEOTHERMAL - Loop Soil Compaction Conflict in Specifications** **Closed** **01/22/2013** **02/01/2013** **01/29/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to attached excerpts from spec section 23 57 34, 31 23 34 and RFI response to T-0356.

The RFI response to T-0356 (SCI-017) requires the backfill of the trenches to meet specifications section 23 57 34 and 31 23 34. However, the two sections are in conflict with one another. Section 23 57 34-3.1, D, requires geothermal loop trenches to be filled with loose soil and then apply water to settle the loose soil. Section 31 23 34, notes that flooding or jetting with water is not allowed.

Therefore, the work sequence directed in RFI T-0356 to meet "...spec section 23 57 34 loose soil shall be used by the geothermal contractor to backfill the trenches where the HDPE ground loops are located to avoid any damage to the pipes during the process. Once the trenches have been backfilled per section 23 57 34 and the piping is protected the soil can be compacted as required by section 31 23 34..." are not feasible.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Wetting of backfill not required.

T-0357 **BGP - Geothermal Stainless Steel vs. Galvanized Pipe Sleeves** **Closed** **12/11/2012** **12/21/2012** **12/19/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: A1-8712

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Utility Penetration Sleeves through the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawing: 23 05 30 2.3B

Detail 2 on Architectural Plan Sheet A1-8712 shows a 1 /4" Stainless Steel pipe sleeve where as specification section 23 05 30, Page 2, 2.3B references Std Wt. galvanized steel pipe sleeves.

Please confirm which sleeves are to be used.

Foundation Wall are to be stainless steel as detailed on the architectural drawings.

T-0358 **BGP - Geothermal Ground Temperature Probe Sleeve** **Closed** **12/11/2012** **12/21/2012** **12/19/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: M1-5002

Detail A on Ml-5002 shows the 2" ground temperature probe sleeve terminating at grade. Detail 5 on M1-5002 shows the same pipe terminating at the same elevation as GLS/GLR piping.

Please provide an elevation drawing for the temperature probe pipe sleeve.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Final elevation of 2" temperature probe sleeve is at same elevation as the GLS/R pipes in their final position as shown in detail #5 as shown on sheet M1-5002.

T-0359 **BGP - Water Treatment for Geothermal** **Closed** **12/18/2012** **12/18/2012** **12/21/2012** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification 23 57 34 Sub Section 3.4

During the TG06 IFB process section 3.4 was added to the Ground Loop Heat Exchanger specifications. We believe this requirement is intended for a future bid package during the commissioning of the system. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Water Treatment and cleaning of the system is required as part of the TG06 Scope of work.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0360	**BSE - Mud Slab Welded Wire Reinforcement**	**Closed**	**12/21/2012**	**12/28/2012**	**01/03/2013**	**Potentially**	

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Specification Section: 03 20 01

Regarding the concrete reinforcement within the mud slab, BBII would like the option of using Deformed Welded Wire Reinforcement (DWR) in lieu of rebar reinforcement. DWR strictly conforms to ACI 318 and offers multiple advantages to rebar reinforcement. Particularly, DWR will help reduce the risk of inclement weather damage to the subgrade, due to a quicker installation which will leave the subgrade exposed for a shorter period of time. Please see attached supporting documentation.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Albeit after the specified 10 days, W/O will consider this substitution request only subsequent to receipt of a completed Request for Substitution form found in specification section 00 04 40.

T-0361	**BGP - Slab Penetration Sleeve Slipsheets**	**Closed**	**01/03/2013**	**01/13/2013**	**01/11/2013**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference S1-3003:

The existing piles are to be wrapped with a 10 Mil polyethylene (for 30" & 36" sleeves) or 112" compressible material (for 48") slipsheet between the sleeve and the piles. Because of the minimal distance between the sleeve weld and the existing pile, the slipsheet at the weld locations will be damaged from the heat of the welding. Is this acceptable?

If the slipsheets cannot be damaged by the heat of the welding, can the slipsheets have a 3" or 4" vertical break in them at the locations of the vertical welds to avoid the bum damage? This would create two slipsheet breaks or gaps per pile penetration. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to provide a 4" vertical break in the slipsheet at the sleeve joint to avoid burn damage.

T-0362	**BGP - Wall Vertical Reinforcement at 3rd Level Bracing**	**Closed**	**01/07/2013**	**01/17/2013**	**01/11/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Drawing: S1-3201
Reference Specification: 03 30 01

Please reference attached sketch of the shoring wall section and CD S1-3201.

To allow required access and sequencing for installation of the wall waterproofing and reinforcing steel, an additional row of type 2 mechanical couplers will be required on the back face walls directly below 3rd level of bracing.

This will allow the following:
1. "Blocking out" the waterproofing at the waler beam packing locations will be avoided.
2. Provide required access for waterproofing installation.
3. Reduce the time installed waterproofing is exposed on wall before concrete pours.

Please provide your approval of this additional row of couplers.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger 1/10/2013 Contractor-proposed additional row of type 2 mechanical couplers is acceptable.

Jeff Thiel 1/10/2013 Changes outlined in this RFI response shall be done at no additional cost to the owner.

T-0363 **BGP - Slab Penetration Sleeve Thickness** **Closed** **01/09/2013** **01/19/2013** **01/18/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: A1-8711 and S1-3003

Plan sheet A1-8711 details all of the slab penetration sleeves to be fabricated of 3/8" steel. Plan sheet S1-3003 details only the pin pile, trestle pile, and 48" bridge pier sleeves to be fabricated of 1/2" steel. Please confirm that it is acceptable to fabricate all penetration sleeves of 3/8" steel like that shown on A1-8711.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The steel plate thickness shown on the Structural Sheet S1-3003 was revised from 3/8" thick to 1/2" thick as a part of Addendum #1. In addition, galvanization was called for. This change was incorporated into the IFC set.

For the Mat Slab penetrations not covered on sheet S1-3003, the 3/8" thick sleeve (with galvanizing) as shown on A1-8711 is acceptable.

T-0364 **BGP - WPM-1 ASTM 6769 & Blindside Waterproofing Application** **Closed** **01/15/2013** **01/24/2013** **01/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to Specification 07 12 10 3.3 and Drawing 1/A1-8710.

Section 3.3 of the specifications require that all work be performed in accordance with ASTM D6769 (Application of Fully Adhered, Cold-Applied, Prefabricated Reinforced Modified Bituminous Membrane Waterproofing Systems). The WPM-1 vertical application (071210-1.1, A.2) is a blind-side WP application; however, the ASTM D6769 is written to address positive-side WP application.

1. Please confirm the blind -side WP application is covered under the ASTM D6769 requirement or provide the applicable ASTM requriement to perform the blind-side application.
2. Please confirm which section of the ASTM D6769 requirement is applicable to blind-side WP application.
3. The ASTM D6769 section 11.7 requirement to "backfill vertical waterproofing installation within 24 h of protective board installation..." isn't feasible due to the extensive work sequence to install concrete reinforcement, form and place the foundation wall. Please confirm this section of the ASTM requirement is not applicable to blind-side WP applications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Paragraphs 11.4.1.1, 11.6 and 11.7 are not applicable to the blindside installation.

2. Paragraphs 11.4 1.1 through 11.4.1.4 relating to a one ply application are not applicable to the 2 ply vertical installation specified and indicated on this Project.

3. Paragraph 11.4.1.1, 11.7 is not applicable to blindside installation.

All other paragraphs apply where they do not conflict with the Project Specifications or the manufacturer's printed recommendations and specifications. In those cases, the Project and manufacturer's specifications are to be followed.

T-0365 **BSE - Micropile W127 Relocation** **Closed** **01/15/2013** **01/25/2013** **01/17/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Ref: Specification 31 63 33

Micropile W127 (5'-5 3/4" West of G.L. 3 and 74'-0 3/4" South of G.L. J) is located in an area that is not accessible to drilling equipment. BBII proposes to eliminate this micropile. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The micropile shall not be eliminated. An acceptable relocation of micropile W127 is 13' to the north and 16' to the east (or contractor to propose a different relocation).

T-0366 **BGP - WPM-1 - Adhesive Between Bottom Ply Waterproofing Membrane and Mud S** **Closed** **01/22/2013** **01/22/2013** **01/24/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to attached Specification Section 07 12 10, Article 3.3.

Per Specification Section 07 12 10-3.3, B, the bottom ply of the waterproofing membrane is to be installed dry with the polyethylene protection sheet facing the mud slab. Per Specification Section 07 12 10, 3.3, D, each polyethylene protection sheet is to be installed embedded in adhesive (wet) such that each sheet will have enough adhesive uniformly placed on it that it won't come into contact with the other sheet.

Is the bottom sheet to be installed dry per 3.3, B. or is it to be installed embedded in adhesive (wet) per 3.3, D? Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The bottom sheet is to be installed dry per 3.3, B.

T-0366.1 **BGP - WPM-1 - Adhesive Between Bottom Ply Waterproofing Membrane and mud s** **Closed** **02/01/2013** **02/11/2013** **02/05/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

The response to RFI T-0366 directs Shimmick to install the bottom waterproofing membrane without adhesive to the mud slab. If the membrane is installed dry or without adhesive, nothing will prohibit water from entering between the membrane and mud slab. This would cause the membranes to float or bubble. Per the manufacturer's recommendation, the waterproofing membrane is to be adhered to the mud slab with adhesive.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The specification is correct. The method of installation, installing the first ply with the polyethylene protection sheet facing the mud slab, without adhesive, was recommended by the manufacturer.

T-0367 **BGP - REBAR - Vertical Pit - Two Piece Bar** **Closed** **01/17/2013** **01/27/2013** **01/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to Specification Section 03 20 00-3.1, E, attached drawing S1-3004, S1-3006 and Gerdau sketch

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed splice for vertical "Z" bars around pit edge in mat is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SK-RFI014.

Concrete reinforcement details around the mat slab pit sections shown on drawing SI-3004 and SI-3006 depict a continuous vertical "Z" bar around the pit slab edge. Please confirm the proposed lap splice detail and requirements as shown in the attached Gerdau sketch SK-RFI014 is acceptable.

T-0368 **BGP - Hub and Spigot Type Pipe Support Spacing** **Closed** **01/17/2013** **01/27/2013** **02/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 22 13 01 , 3.2
Reference Drawings: P1-6001

In Section 3.2 C, Supports, the support spacing for all horizontal cast iron no-hub pipe is specified to be 10 feet maximum, and within 6 inches at each side of each joint; however, the support spacing for all horizontal cast iron hub and spigot type pipe is not provided.

Please provide the required support spacing for the horizontal cast iron hub and spigot type pipe.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The required support spacing for horizontal hub and spigot cast iron piping is the same as for the no-hub piping.

T-0369 **BGP - REBAR - Headed Steel Bar Shear Conflict in Mat Slab** **Closed** **01/21/2013** **01/31/2013** **01/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing S1-3005 and S1-2022.

Detail 3 on sheet S1-3005 depicts the full size T-head bars as they interface with the mat reinforcement. The same detail includes additional reinforcement depicted at column locations. The reinforcement (open circles) is shown

SUGGESTION:

Gerdau proposes to place the added reinforcement directly in line and above the main mat reinforcement in both directions as required. The suggested proposal may require several additional layers of steel to accommodate the total quantity of added bars at each column. Furthermore, it is unkown whether

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed placement of additional mat bottom rebar to an upper layer is not acceptable. Placement of the vertical headed bars is construction means and methods. However, it is acceptable to move the additional mat bottom rebar horizontally a maximum of 3/4", as required.

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between the typical main mat reinforcement and others are aligned with above layers one and two of the main mat reinforcement as defined in note 4 and 6 on sheet S1-2002. As a result, the clearances created by the #10 main mat reinforcement being spaced at 8" O.C. and the 3" square heads at the ends of the #8 T-heads (refer 2/S1-3005) do not allow enough of a clearance to install the headed bars into position. Refer to the annotations in the attached drawings.

Please advise.

another conflict is created at the column dowel T-heads.

T-0370 **BGP - WPM-1 - Mud Slab Finish for Waterproofing** **Closed** **01/22/2013** **02/01/2013** **01/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Specification Section 07 12 10, 3.2

The concrete surface profile (CSP) required by the waterproofing manufacturer Laurenco, ranges between a CSP level of 2 and 4 as defined by the International Concrete Repair Institute (ICRI) of technical guide "Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays." The ICRI defines the levels of CSP as 1 (nearly flat) to CSP Level 9 (very rough). The Laurenco waterproofing system requires "a good wood screed or broom finish...often referred to as a 'sidewalk' finish..Do not use a steel trowel finish." See attached excerpt of the manufacturer specification.

1. Please confirm the ICRI CSP requirements as it relates to surface finish, flatness and levelness are to supersede the varying ASTM F-value requirements setforth in specification section 033000-3.6, B1 or provide a revised specification section 033000 incorporating the ICRI requirement.

2. Please confirm a wood screed or broom finish is accpetable for the mud slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. ICRI CSP requirements are not appropriate for the mud slab. The mud slab in being poured, not repaired. The International Concrete Repair Institute CSP scale is used for existing concrete surfaces when they are being acid etched, ground or shotblasted. The appropriate finishing for the mud slab is described in the BGP Specification 03 30 00 Cast in Place Concrete 3.6 Concrete Finishes and calls for compliance with the American Concrete Institute concrete finish recommendations ACI 302.1R and ACI 304R, with dimensional tolerance limitations given by ACI 117.

2. Specification 03 30 00, 3.6 C stipulates: Finish for monolithic slab surfaces to be covered with membrane i.e. the entire mud slab is covered with membrane, is to be a Float Finish. Note that 3.6 C. 1.d for Float Finish has the same finish surface values as 3.6 D. 3., which is the finish for Pedestrian Sidewalks and Ramps and this criteria is compatible with the Waterproofing Manufacturer's requirement for a good wood screed finish (a good "sidewalk" finish).

No revisions to the specification are required.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0371	**BSE - Micropile W154 & W236 Bent After Install**	**Closed**	**01/22/2013**	**02/01/2013**	**01/29/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 31 63 33
Reference Drawings: Sheet ML-1 (Approved Micropile Layout submittal.)

The top 5ft of micropile W154 is out of plumb by approximately 8% and micropile W236 is out of plumb 2.5%. It appears that the piles have been hit by a piece of equipment and bent near subgrade. BBII recommends the piles should be left as-is. Please confirm this is acceptable.

BBII will take steps to ensure this does not happened again. The importance of taking special care to avoid damaging permanent work will be an emphasized topic in tool-box talks for crews running equipment near micropiles.

In the event that a micropile becomes bent in the future, please provide the design teams percentage of tolerance that the micropile can be out of plumb.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Any micropiles that have experienced an impact shall be rejected and re-drilled in new locations. Contractor to submit new locations.

T-0371.1	**BSE - Micropile W154 & W236 Bent After Install**	**Closed**	**02/04/2013**	**02/14/2013**	**02/06/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Specification Section 31 63 33 3.2.L

BBII is in receipt of reply to RFI T-0371, which suggests that piles which have experienced an impact be rejected and re-drilled. Acceptance of piles is based on specification 31 63 33 3.2.L. Per the recommendation of the Micropile Engineer (Drill Tech's Steve McCullough) and the anchor bar manufacturer (DSI), the piles were bent back to plumb and retested on 02/01/2013. Attached are the passing proof test results for the piles in question. Please confirm that these piles are accepted.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The piles are confirmed to be Rejected and shall be replaced with new piles. The concerns include, but not limited to, the following:
* de-bonding of bars and grout
* cracking of the grout that may compromise its ability to provide corrosion protection of the bar
* the ULTIMATE uplift capacity of the pile might have been compromised, which cannot be verified by the proof test

Unless the contractor can provide sufficient evidence that addresses the concerns listed above and approved by TJPA, the piles shall remain as Rejected. It should also be noted that the contract documents call for a coupler at the mud slab level to allow the projected portion of the bars be dissembled to avoid

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

the exact problem. If BBI cannot prevent the micropile from being hit again, BBI shall install the coupler as shown and take down the portion of the bar above the coupler as soon as the pile is proof tested and re-install the bars above the coupler at a later time.

T-0371.2 **BSE - Micropile W154 & W236 Bent After Install** **Closed** **02/08/2013** **02/18/2013** **02/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII is in receipt of reply to RFI T-0371.1, which confirms that piles W154 and W236 are rejected. Per response to RFI T-0371, BBII proposes piles W154R1 and W236R1 be drilled at the locations on the attached drawing. Piles W154 and W236 will be cut off at bottom of mud slab and the mud slab blackouts poured back.

Please confirm that these pile locations and method of pile abandonment are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to new locations of micropiles W154R1 & W236R1 as proposed, as well as the method of abandonment for piles W154 & W236 as proposed.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0372	BGP - WPM-1 - Filter Fabric in Waterproofing System	Closed	01/23/2013	02/02/2013	01/31/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Section: 07 12 10 2.5 D

Specification Section 07 12 10 2.5 D requires filter fabric as an accesory to the Modified Bitumen Waterproofing System. After reviewing Shimmick's waterproofing shop drawings, and speaking with a Laurenco representative, it has been confirmed that filter fabric is not used in this waterproofing system.

Please confirm that filter fabric as specified in section 07 12 10 2.5 D is not required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Filter Fabric is not required.

T-0373	BGP - Zone 1 Concrete Partition Wall Detail	Closed	01/24/2013	02/03/2013	01/29/2013	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference A1-2812, S1-022 & S1-2052

Drawing A1-2812 shows concrete partition walls between Gridlines 1 and 2.3 and Gridlines D.4 to E.6; however, these same walls do not appear on drawings Sl-2022 or S1-2052. Please confirm if the walls are required and which drawings are correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Walls are required. Layout per architectural drawings as noted on sheet note 7 on S1-2052. Note that walls are not intended to show on S1-2022 Mat Bottom Reinforcement Plan.

T-0374	BGP - Mat Slab Shear Wall Detail Clarification	Closed	01/24/2013	02/03/2013	01/29/2013	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference A1-2820 and S1-2030

Contract drawing Al-2820 depicts a shear wall between GL 1.4 to 2 and K.5 to L that is discontinuous and contains a large opening; however, drawing S 1-2030 does not depict a discontinuous wall. Please confirm which drawing is correct and if the opening is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Structural drawings are correct. Opening in shearwall at mat level does not exist.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0375	**BGP - Plumbing Drainage Invert Elevation**	**Closed**	**01/24/2013**	**02/03/2013**	**02/01/2013**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference P1-2026

Please reference attached contract drawing P 1-2026 and the drainage system at the SP B2-D-2. Referenced drawing shows 1% flow from the catch basin to the sump pit, however; the specified invert elevations call out the opposite. Please confirm that the invert elevations called out on P 1-2026 are correct, if not please specify new pipe invert elevations to be used for the drainage system specified herein.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The invert elevation for drainage piping from the catch basins to sumps is -36'-10".

T-0376	**BGP - Column Spiral Reinforcing in Lieu of Individual Ties**	**Closed**	**01/24/2013**	**02/03/2013**	**01/30/2013**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference S1-3300 & S1-3304

Gerdau is requesting the use of spiral reinforcing in lieu of the #6 individual stirrups/hoops that are shown on contract drawings SI-3300 and SI-3304 detail 1 for column types B1, B2 and B3. The spiral reinforcing would be #5 and maintain 3.5" pitch for the B1 column, 3" pitch for the B2 column and 4.5" pitch for the B3 column. Please confirm the use of spiral at the pitch indicated is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The size/spacing proposed by the contractor does not meet the volumetric ratio of spiral or hoop reinforcement requirement in ACI 318 therefore the request is declined in current form. For columns C10 and C11, if the contractor prefers to use #6 spirals with the spacing specified for column ties in Sheet S1-3300, that is acceptable to the SER. The tightest spacing specified in S1-3300 along the column height shall govern.

If spiral reinforcement is used for Column C12, the size and pitch of the spiral shall be #5 and 3", respectively, for the full column height.

In addition, if spiral reinforcement is used, detailing requirements in ACI 318 Section 7.4 shall be fully met.

T-0377	**BGP - Two Piece Oval Hoop Columns A1, A2, & A3**	**Closed**	**01/24/2013**	**02/03/2013**	**01/29/2013**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:
Reference S1-3304

Please confirm it is acceptable to use a two-piece oval tie in lieu of the single-piece oval tie, as depicted on contract drawing S1-3304, for columns Al, A2 and A3. Gerdau proposes to use a lap splice along the flat sides of the oval to connect either side of the hoop.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Contractor-proposed lap splices are not acceptable.

T-0378 **BGP - Drainage Catch Basin Clarification** **Closed** **01/24/2013** **02/03/2013** **02/01/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:
Reference P1-2022

There are two (clouded) sump pits attached that are not connected to any of the drainage system called out on Pl-2022. Please confirm that there are no drainage lines connected to these two sump pits.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
There is no drainage piping connected to these two sump pits.

T-0379 **BGP - Geothermal Pipe Fusion Butt Weld** **Closed** **01/24/2013** **01/24/2013** **01/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:
Reference Specification: 23 57 34

The response to Submittal TG0601-008 commented that only socket fittings and electrofusion fittings are allowed. This insinuates that Butt Fusion welds are not allowable. However, per Specification Section 23 57 34, Butt Fusion welding does not seem to be precluded. The butt fusion method is acceptable per the IGSHP A.

Please confirm that butt fusion welding is acceptable under this contract for the geothermal piping.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Butt Fusion is an Acceptable method of heat fusing ground loop piping.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*
T-0380	**BSE - K9 Buttress shaft CSL Tubes**	**Closed**	**01/28/2013**	**02/07/2013**	**02/14/2013**	**Potentially**	

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference attached sketch and spreadsheet.

We were informed by Harris-Salinas that they are short of CSL tubes for the last rebar cage K9. Since K8/K9 interface will not be CSL tested, per the agreed upon list of shaft interfaces (generated by Arup and BBII), it is in BBII's opinion that it would be more beneficial to the shaft if it is installed without CSL tubes. The benefits include the following: There would be no need to grout the holes; no voids; and there would be more concrete in the shaft. If CSL tubes are required, we are proposing to install them per the attached drawing.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor's proposal is acceptable.

T-0381	**BGP - PLUMBING Floor Cleanout Requirement**	**Closed**	**01/28/2013**	**02/07/2013**	**02/01/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 22 13 01 2.3 A.3
Reference Drawing: P1-0051, P1-2022

Drawing P1-0051 specifies a Fig. Number of "MIFAB C-100-R/S" with remarks of "STAINLESS STEEL COVER AND PLUG, HEAVY DUTY, ANCHOR FLANGE". This item dffers from the floor cleanout required in Spec section 22 13 01-2.3.A.3 which calls for "Extra heavy duty cast iron cleanout with round adjustable galvanized cast iron top, vandal proof screws, plastic plug or bronze gasketed plug, spigot outlet; 'No. 4220-G Series' by J.R. Smith, 'No. Zl400-G-VP Series' by Zurn Industries, Inc., Mifab C1100-Rl3-6 or equal."

Please confirm which type of floor cleanout is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The correct model no. is MIFAB C-1000-R/S (in the drains and cleanout schedule on drawing P1-0051).

T-0382	**BSE - Eliminate CSL Tubes from Shaft D1**	**Closed**	**01/31/2013**	**02/10/2013**	**02/07/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Lynn Kowallis

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Ernie Cortez

REQUEST:

Reference attached Arup email dated 1/29/2013.

Please confirm that Shaft D1 can be installed without the need for CSL tubes. At Arup's direction, and at no extra cost to the owner, BBII will provide a QC core hole that extends into native soil.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. The added QC core shall be located in Shaft D1.

T-0383 **BGP - Drainage Flow Lines** **Closed** **01/31/2013** **02/10/2013** **02/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome

To: Turner Construction Compan Gary Krutsch

Answered By: Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 22 13 01
Reference Drawing: P1-2022 & P1-2030

Please reference contract drawings P1-2022 thru P1-2030. There is a discrepancy between the called out elevations of the pipe inverts and the flow grades between the sump pits and catch basins. All pipe inverts at the catch basins are to be set to El. -36.83' and pipe inverts at the sump pits are at either El. -37.50' or -37'-25'.

At the long pipe runs the flow grade matches to 1% as called out on the plans. However, on the short pipe runs, this grade is up to 18%.

Please clarify which details governs, and whether the 18% slope is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The pipe invert elevations at sumps were established as uniformly as possible.

An 18% slope is acceptable for short runs (approx. 4 ft.).

T-0384 **BSE - Dry Excavation of Buttress Shaft D1** **Closed** **02/01/2013** **02/11/2013** **02/12/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis

To: Turner Construction Compan Gary Krutsch

Answered By: Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Ernie Cortez

REQUEST:

Reference attached Arup email dated 1/30/2013.

Becho will proceed on excavating Shaft D1 dry as per Arup's email.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
This shaft was placed on the day that this RFI was received. No further response from Arup is necessary.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm this is still acceptable.

T-0385 **BSE - Micriopile Moves in NW Corner W013, W031, W047, W198.** **Closed** **02/05/2013** **02/15/2013** **02/06/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Submittal Pakage TG0601-009.1 - 235734-003.1

Upon staking layout of micropiles in Northwest corner of Zone 1, BBII discovered two micropiles that require relocation.

1. Pile W013 is too close to installed dewatering well. BBII proposes moving this pile 4' Southwest. This does not appear to conflict with Ghex shop drawings revision date 02/04/13.
2. Pipe W198 is too close to overhead struts and strut supports. BBII proposes moving this pile 2' Northwest. This appears to eliminate the need for a "jog" in the Ghex piping as shown on Ghex shop drawings revision date 02/04/13.

Upon drilling two piles in the NW corner of Zone 1, Drill Tech discovered unforeseen obstructions below grade (reference COM1741 sent 02/04/2013). Relocation of these micropiles is required.

1. Pile W031 encountered an obstruction below grade which did not allow installation of the anchor bar in the drilled hole. After discovery of the obstruction, the pile was relocated 2' Northwest of its
planned location. Installation of the micropile was completed on 02/01/2013. This does not appear to conflict with Ghex shop drawings revision date 02/04/13.
2. Pile W047 encountered an obstruction below grade which did not allow the micropile hole to be drilled past approximately 12'. BBII proposes to relocate this pile 2.8' Southwest. This appears to conflict with Ghex piping shown in Ghex shop drawings revision date 02/04/13 and may require the addition of a "jog".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropiles (W013, W198, W031, W047) as proposed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm these changes are acceptable.

T-0386 **BSE - Elevator Pit Dimensions** **Closed** **02/05/2013** **02/15/2013** **02/07/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: SI-2024 and Detail 3/S1-3008

The slab depression between Gridlines 15 &16 Between Gridlines B & C does not contain enough dimensions to construct. Detail 3/S1-3008 Note 2 states "For extent of thickened mat see plan." Plan sheet S1-2024 revision 2 dated 11/27/2012 provides width of the pit in the North-South direction, but does not provide the length of the pit in the East-West direction.
Please provide these dimensions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The west edge of the thickened mat as dimensioned in the RFI sketch is 7'-0" from gridline 15.

The east edge of the thickened mat as dimensioned in the RFI sketch is 23'-1" from gridline 15.

T-0387 **BGP - Geothermal Loop Compaction Requirements** **Closed** **02/07/2013** **02/17/2013** **02/15/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 31 23 34 3.3 F

Per Specification Section 31 23 34, Section 3.3, Part F, the trench is required to be compacted to 95% . To acheive 95% compaction, the surrounding soil must have an equal or greater compaction.
Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Achieving 95% compaction in the trenches is possible.

T-0388 **BGP - Temperature Probe Sleeve Penetration** **Closed** **02/08/2013** **02/18/2013** **02/14/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Ref: TG06.1 Bid Package - 5/M1-5002 and TG06.0 - 5/M1-5002

The TG06.1 bid package, M1-5002 drawing does not show a temperature probe sleeve in Detail 5. Is the temperature probe sleeve to penetrate through the wall like it is shown in the TG06.0 M1-5002, Detail 5 or is it not to penetrate through the wall like the TG06.1 documents?
Please advise.

Accept Suggestion: ☐

Temperature probe piping should be installed as described in Note 6, of both packages, on sheet M-0006 within Below Grade package (TGO6) Mechanical Notes . Temperature probe piping was added to detail 5 in issue for construction set for clarification.

T-0389 **BGP - Cast-in-place Concrete Shrinkage** **Closed** **02/11/2013** **02/21/2013** **02/22/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Specification Section 03 30 20 1.7.F.3.i

Please reference attached ACTM C 157, pages from SEONC San Francisco Bay Area Concrete Aggregate Report 2008, and Specification Section 03 30 20- 1.7.F.3.i. ASTM 157 section 4.3 states that if the condition of mixing, curing sampling and storage other than specified in the test method are required, they shall be reported but are not to be considered as standard conditions of this test method. In section 6. Sampling, it requires samples from batches made in the laboratory and the Note 2 states that field cast specimens can show up to twice as much drying shrinkage as laboratory cast specimens from the same materials and proportions. Furthermore, SEONC 2008 states that "actual shrinkage of the concrete in service and in field-cured tests will not necessarily correlate closely with the trial batch test results." For these reasons SCCI believes that shrinkage tests from samples at the job site can not verify the
specified shrinkage limit and can not be compared with the laboratory tests.

Please confirm that shrinkage results from the samples taken in the field will not be directly compared to laboratory tests, and consequently used as basis for rejection of material.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The project specification specified that the shrinkage tests shall be in accordance with ASTM C157 with modified SEONC Recommendations.

It is recognized that the field sampled tests will not necessarily correlate closely with the trial batch test results, which should be anticipated before bidding.

In accordance with SEONC, field sampled test will be used for the evaluation of the specified limits as specified. However, rejection of a concrete pour will not be based on shrinkage test of field samples alone.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0390	BGP - Floor Drain FD-1 Clarification	Closed	02/12/2013	02/22/2013	02/20/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: P1-0051

The "Drains and Cleanout Schedule" on drawing P1-0051 calls Floor Drain FD-1 to be Mifab F-1000-S with a grate size of 6" in diameter. Per the manufacturer, F-1000-S has a square grate.

1. Is the floor drain grate to be round with a 6" diameter or square?
2. If it is square, then what are the dimensions of the square grate?
3. The remarks for FD-1 specifies a "Clamping Device." Is the "Clamping Device" referring to a membrane clamp?

Please advise

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The floor drain grate is square.
2. The square grate dimensions are 6"x6".
3. Yes. This floor drain will be used extensively throughout the project. The membrane clamp will be used where there is a membrane.

T-0391	BGP - Zone 2 Sump Pit Depth	Closed	02/13/2013	02/23/2013	02/19/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: A1-9215 and S1-3006

Please confirm in drawing Al-9215, the call outs "SP TOC -42'-4"" and "SP TOC -46'-4"" for the sump pits between grid lines C-D and 4-5 are referring to the elevation for the bottom of sump pits, as illustrated in the attached markup of Sl-3006.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We confirm that callouts SP TOC -42'-4" and SP TOC 46'4", shown on A1-9215 at the Sewage Ejector Room (B2230), are referring to elevations of bottom of sump pits illustrated on S1-3006 details 1 & 2.

T-0392	BGP - CMU Partition Walls	Closed	02/15/2013	02/25/2013	02/20/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference A-2224 and A-0022

Sheet A-2224 shows future CMU partition walls as type .6. Per the masonry partition schedule there is no .6 type.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We confirm these walls are partition type 6. Note for all CMU wall type tags on the drawings showing a dot prefix e.g. .6, the dot is to be ignored.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm these walls are partition type 6.

T-0393 **BGP - Reinforcement anchoring stagger and clearance for "addl bottom bars"** **Closed** **02/15/2013** **02/25/2013** **02/27/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference 3/S1-3006

1. Confirm there is no stagger for the reinforcement anchoring.
2. Provide the minimum clearance for the reinforcement anchoring to the "addl bottom bars".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed, no stagger for bottom of column vertical bars.

2. The column bars extend down to (sit on top of) the mat bottom bars (and "addl bottom bars").

T-0394 **BSE - Micropile Relocations at Beale Street** **Closed** **02/19/2013** **03/01/2013** **02/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference Specification: 31 63 33

Eight micropiles will be in conflict with the Beale Street Bridge Piles; BBII proposes relocating these micropiles to provide adequate clearance. See attached chart and drawings for proposed relocation information.

Please confirm these relocations are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We assume the direction of each micropile move is per graphic sketch with arrows vs the table since the direction of move per table is not consistent with the graphics. Thornton Tomasetti does not object to moving micropiles E845, E874, E842, E885, E834, E877, E831, E860 as proposed.

T-0395 **BGP - Floor Sink FSK-2 Clarification** **Closed** **02/19/2013** **03/01/2013** **03/05/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: P 1-0051

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the attached cut sheet.

Webcor/Obayashi Joint Venture

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The "Drains and Cleanout Schedule" on drawing P 1-0051 calls for Floor Sink FSK-2 to be Mifab FS 1700-1 -FLC-5. This model is not available per discussions between SCCI and the manufacturer.

Please confirm required floor sink model.

T-0396 **BGP - Curb Frame Steel and Anchor Clip Requirements** **Closed** **02/19/2013** **03/01/2013** **02/28/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: 8/P1-6001

Detail 8 on drawing Pl-6001calls out a "Heavy duty galvanized steel custom made curb frame embedded in concrete." Please provide the following information:

1. Thickness of steel for curb frame.
2. Anchor clip details (size, spacing, connection to curb frame).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The curb frame thickness is 5/8".

2. The anchor clips are 2"x 6"-2", they are welded to the frame. There will be two anchor clips on each side of catch basin/pit.

This are minimum requirements for the custom made curb frame. Contractor to submit shop drawing for review.

T-0396.1 **BGP - Drainage Pits Embedded Frame Details and Curb Frame Steel and Anchor C** **Closed** **03/04/2013** **03/14/2013** **03/08/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: 8/P1-6001, DS-0001, RFI # 396

Detail 8 on P1-6001 does not specify the thickness of the frame material, nor any of the Specs and Addendums. Based on RFI 396, Designer specified for the frames to be 5/8" thick. However SCCI believes that ¼" thick frame is adequate to satisfy "heavy duty requirement". SCCI's has estimated the Work to fabricate the embedded grate frame out of the stock angles (2x2x¼" and 3x2x¼"), per attached SCCI's drawing DS-0001. Further to RFI 396, please

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The required thickness of the frame material is 3/8" and not 5/8" as previously provided in response to RFI T-0396. The construction of the frame is very clearly shown in detail 8/P1-6001. Welded stock angle iron is not acceptable.

2. Nelson studs can be used in lieu of anchor clips.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

answer the following:

1. Can stock angle sizes noted above be used for construction of the embedded frames?
2. Could Nelson studs be used in lieu of the anchor clips, as noted on the attached drawing?

Please note that increase of the material size consequently increases the cost of furnished material, and therefore will constitute a compensable change.

T-0396.2 **BGP - Drainage Pits Embedded Frame Grates** **Closed** **03/22/2013** **04/01/2013** **04/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Specification: 23 13 01
Reference Drawings: P1-6001
Reference RFIs: T-0396, T-0396.1

Detail 8 on CD P1-6001 does not provide enough details for assembly and fabrication of the embedded frames. SCCI's drawing attachment in the RFI 396 series provides such details.

As per our discussion with the SER(Structural Engineer of Record) on 3/21/2013, see attached revised SCCI's drawings of the embedded grate assemblies. As discussed SCCI has revised the weld detail between the two angles to be used to fabricate the embedded frames. Weld is changed to T-joint, PJP double bevel groove weld per AWS D1.1 (references 8-56, table 8-2 from AISC Steel Manual 13th ED.)

Is it acceptable to construct the embedded grate frames per attached detail?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The construction of the embedded frame is clearly shown in detail 8/P1-6001 as a formed frame. The proposed assembly including two angles with double bevel groove weld is acceptable. Contractor to provide submittal for frames and grates.

T-0397 **BGP - RCW Dimension Clarification** **Closed** **02/21/2013** **03/03/2013** **02/28/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference A1-2123 and attached.

Between gridelines 12-13 and G-H there appears to be two conflicting dimensions. Please confirm the 7'3" dimension is from gridline H to the work the point.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

On A1-2123, between gridlines 12-13 and G-H, we confirm the 7'-3" dimension from gridline H to the work point is correct. The dimensions are not conflicting. The 7'-1 3/8" dimension from gridline H is to the South West corner of the train platform knee wall. The platform is curved, which accounts for the slight difference in dimension between the corner and the work point.

T-0398 **BGP - Vehicle Ramp Concrete Corbel Dimension** **Closed** **02/21/2013** **03/03/2013** **02/28/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference A1-2310 and S1-2251

Please provide dimension for the continuous concrete corbel at the vehicle/bike ramp.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to detail 7/S1-3205 which is referenced from plan S1-2251 for continuous corbel dimensions at vehicle/bike ramp on the exterior of the foundation wall. Top of corbel is 12" min from top of foundation wall.

T-0399 **BGP - Polystyrene Void Fill Material** **Closed** **02/21/2013** **03/03/2013** **03/05/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference A1-7404 and 03 30 20

Please provide the PSI and specification for the Polystyrene void fill called out in detail D on A1-7404.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The void fill below the ramp is only required to the extent where regular formwork cannot be removed and is "Structural Polystyrene used as Typical Fill". For description of type refer to Superstructure Specification for Cast In-Place Concrete 03 30 02 2.9.B.

T-0400 **BGP - Seismic Joint Detail** **Closed** **02/21/2013** **03/03/2013** **03/06/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference S1-3010, A1-8881, & A1-8882

The detail 4/S1-3010 does not appear to be coordinated with the details shown on A1-8881 and A1-8882. Please revise accordingly.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We have reviewed the structural and architectural details for the Seismic Joint on GL 35. Attached SKA-2594 and SKA-2595 show the coordination modifications made to drawings A1-8881 and A1-8882, which will be issued with the next Below Grade Package ASI.

S1-3010 compared to A1-8881:

1. 4/S1-3010 does not include/detail part of the seismic joint below the 5' Mat Slab (these parts was shown on Architectural details).

2. 4/S1-3010 shows deformed bar anchors welded to the joint where as A1-8881 details shows different embeds. Embed anchors have been removed from the architectural drawings as anchoring / attachment is per the structural drawings.

3. 4/S1-3010 shows plate with hole to fully cover top of curb of gutter where as architectural details shows the plate with equal length same as other side of seismic joint, this has been adjusted.

4. Note that the water stop injection hose locations have been adjusted.

S1-3010 compared to A1-8882:

1. Dimension on A1-8882 should be 3'-0" instead of 2'-11 5/8". I will adjust dimension on sheet.

T-0401	BGP - Dimension Clarification between Column and Slab at Ramp	Closed	02/21/2013	03/03/2013	02/28/2013	Potentially ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference 5/S1-3502 and attached.

Please provide the dimension between the vehicle ramp and column.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Dimension between vehicle ramp and column is 1/2".

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0402	BGP - Dimension at slab and parapet wall footing detail	Closed	02/21/2013	03/03/2013	02/28/2013	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference 4/S1-3210 and attached.

Please provide dimension between the ground level slab and parapet wall footing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The gap width dimension is specified on plan S1-2310.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0403	BSE - Mud Slab Flatness and Levelness Testing	Closed	02/21/2013	03/03/2013	02/27/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: 03 30 00 3.6.C.1.d

In follow up to the Turner's request, please confirm this specification section does not apply to the mud slab and no flatness or level testing is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Though flatness or levelness of all concrete pours is expected, FF and FL testing of the mud and protection slabs using special inspectors is not required.

The mud slab is to have falls to drain, as suggested by Webcor, for water management during construction. Also, it is important that the mud slab does not have step-offs or alignment issues between pours that would create voids or cause the waterproofing membrane to tent.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0404	BGP - Replacement of Lap Splice with Mechanical Couplers	Closed	02/22/2013	03/04/2013	03/06/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: S1/3201

Please verify that it is acceptable to replace a lap splice with an approved mechanical coupler (500 series coupler) as needed to support the means and methods of construction. The current location being considered is the outside face wall vertical lap splice between the dowel extending from the mat slab and the typical wall vertical reinforcing at the bottom of the wall. See attached plan sheet S1-3201 to reference the proposed location. Should this be acceptable please verify:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to replace the lap splice with an approved Type 2 mechanical coupler, however, the clear cover to the coupler shall not be less than 1.25" with a tolerance of minus 0".

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1. The mechanical coupler can infringe upon the 2" clearance as the diameter of the coupler is greater then that of the actual reinforcing.
2. Also verify that the couplers can be installed at one typical elevation similar to that of the other couplers depicted on the inside face wall curtain.

T-0404.1 **BGP - Replacement of Lap Splice with Mechanical Couplers** **Closed** **02/22/2013** **03/04/2013** **03/27/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: S1/3201

Number 2 of the RFI T-0404 was not answered.

Please verify that it is acceptable to replace a lap splice with an approved mechanical coupler (500 series coupler) as needed to support the means and methods of construction. The current location being considered is the outside face wall vertical lap splice between the dowel extending from the mat slab and the typical wall vertical reinforcing at the bottom of the wall. See attached plan sheet S1-3201 to reference the proposed location. Should this be acceptable.
please verify.

1. Answered in RFI T-0404

2. Verify that the couplers can be installed at one typical elevation similar to that of the other couplers depicted on the inside face wall curtain.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Answer in RFI T-0404 confirmed.

2. Inquired couplers can be installed at one typical elevation similar to the interior face couplers.

T-0405 **BSE - Required Percent of Maximum Dry Density Required at Areas of Over Excava** **Closed** **02/22/2013** **03/04/2013** **03/01/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Specification Section 31 00 00.3.15.C.1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specification Section 31 00 00.3.15.C.1 states.
C.Percentage of Maximum Dry Density Requirements:
Compact soil to not less than the following percentages of maximum dry density according to ASTM D1557:
1.Under structures, building slabs, foundations and steps, fill deeper than five feet, shall be placed in lifts as defined above and compacted to at least 95 percent dry density.

Does the 95 percent dry density requirement apply only when fill is deeper than five feet and/or under structures, building slabs, foundations and steps?

The subgrade beneath the mat slab is required to be native undisturbed soil or compacted to 95% of maximum dry density.

T-0406 **BSE - Micropile W434 Relocation** **Closed** **02/22/2013** **02/22/2013** **02/27/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Submital TG0300-622.4

Micropile W434 as laid out is in conflict with a dewatering well. BBII proposes moving Micropile W434 North 5' to provide adequate clearance. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropile (W434) as proposed.

T-0407 **BSE - Micropile W327 Installed 2' South** **Closed** **02/22/2013** **03/04/2013** **02/27/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Submittal TG0300-622.4

Micropile W327 was installed 2' South of original location. BBII proposes leaving the installed pile as is. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to the as-installed micropile (W327) location.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0408	**BGP - Open Stirrup with a Cap for Frame Beam Sections**	**Closed**	**02/25/2013**	**03/07/2013**	**03/01/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: 5/S1-3600

Detail 5 on sheet S1-3600 depicts beam configurations Type SI through S5 all of which graphically depict a closed stirrup. Please confirm that it is acceptable to utilize an open stirrup with a cap. The cap would maintain a 135 degree hook on one side and 90 degree hook on the other and placed in an alternating fashion.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired stirrups are for beams that are not in the TG06 package. There is a note on the detail that states "This Detail For Reference

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T-0409	**BSE - Micropile W226 Relocation (Due to Overhead Obstruction)**	**Closed**	**02/27/2013**	**03/09/2013**	**03/04/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference Specification: 31 63 33
Reference Dwg: Attached sketch

Micropile W226 as laid out does not have adequate overhead clearance to be installed. BBII proposes moving Micropile W226 North 12' to provide adequate clearance. An alternate relocation position for Micropile W226 could be 4' East and 4' North.

W/O recommends relocating the micropile North in order to avoid conflict with geothermal.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Shifting W226 north 12' as proposed is acceptable provided W227 will also be shifted 2' north (otherwise W226 and W227 are too close together).

Shifting 4' East and 4' North (5.66' Northeast) is not acceptable as this proposed location would conflict with the mat shear reinforcement.

T-0409.1	**BSE - Micropile W226 Relocation (Due to Overhead Obstruction)**	**Closed**	**03/04/2013**	**03/14/2013**	**03/05/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Reference: 31 63 33
Specification Drawings: Attached BBII sketch

Micropile W226 as laid out does not have adequate overhead clearance to be installed. BBII previously asked to move the pile 12' North. BBII understands that this

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to relocating micropile W226 as proposed (10' North and 1' West).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

location would be too close to pile W227 which is already installed. BBII now proposes to move the pile 10' North and 1' West. This does not appear to conflict with geothermal piping.

Please confirm this is acceptable.

T-0410 **BGP - Lower Concourse Top of Slab between Gridlines 3-9** **Closed** **02/27/2013** **03/09/2013** **03/05/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-3201 (BSE Drawings)
S1-2202 (BGP Drawings)
S1-2203 (BGP Drawings)

12/10/10 Issued for construction BSE drawing S1-3201 shows lower concourse top of slab to be 8'-8" between gridlines 3-9. 11/27/12 Issued for construction per ASI 100 BGP Drawings S1-2202 and S1-2203 shows lower concourse top of slab to be 5'-5" between gridlines 3-5 & 8-9. Gridlines 5-8 shows top of slab at 5'-10".

Please verify the elevation of the lower concourse top of slab between gridlines 3-9.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The lower concourse top of slab is per BGP Drawings. Note that the depressed slab extent is between gridline 6-8 and not 5-8 as the RFI states.

T-0411 **BGP - Welding for Pentration Sleeves** **Closed** **02/28/2013** **03/10/2013** **03/08/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 05 50 10
Reference Submittal No: TG0600-036

Per the Submittal TG0600-036 comments, the intermediate ring, 3" horizontal weld must have a removable backer bar. Is it acceptable to have a double beveled groove weld replace the single bevel groove with a back bar? Eliminating the backer bar in this weld and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. At intermediate ring, for 3" horizontal weld, contractor may substitute double beveled groove weld to replace single bevel groove with back bar, as proposed.

2. However, the contractor's proposal to pre-assemble the collar ring and the cap plate in the shop is not acceptable. The contract documents indicate

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

having a double beveled groove instead is more efficient.

Secondly, the Submittal TG0600-036 comments address the field welding of the penetration sleeve collars to be conducted after the trestle pile is to be removed. Is it acceptable to weld a full collar with cap in the shop? The assembly would arrive onsite to be welded in place as originally intended by the designer.

Please advise.

that the collar ring and cap plate are two separate pieces to be sequentially field-welded into place. The collar ring is first field welded to the sleeve, and then secondly the cap plate is field welded to the collar ring. The contractor's proposal to pre-assemble the collar and cap into one unit makes it impossible to field weld the collar/cap assembly onto the sleeve because there will be insufficient clearance for welding (mat rebar will already be placed and the mat concrete poured with only a small blockout surrounding each sleeve, making it impossible to weld any pre-assembled collar/cap onto the sleeve from the outside). While this construction sequence is ultimately a construction sequence and means and methods issue that should be commented by W/O, it is the opinion of the design team that contractor's proposal is not feasible.

T-0412 **BGP - Dewatering Well & Piezometer Penetration Sleeve Anchors** **Closed** **02/28/2013** **03/10/2013** **03/05/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Specification Section: 05 50 10
Specification Submittal: TG0600-036

Per the Metal Fabrication Submittal for the pipe/pile peentration sleeves, TG0600-36, the number of anchor holes per ring were arbitrary for the submittal. Is it acceptable to have 4 equally spaced 1/2" holes to fit 3/8" wedge anchors for the anchorage of the dewatering well & piezometer penetration sleeves?

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes. It is acceptable to have 4 equally spaced 1/2" holes to fit 3/8" wedge anchors for anchorage of the dewatering well and piezometer penetration sleeves.

T-0413 **BGP - Bulkhead Formwork Material** **Closed** **02/28/2013** **03/10/2013** **03/13/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification: 031000
Reference Drawings: Sketches attached

SCCI is planning to use Stayform for the construction of various bulkheads and blockouts in concrete structure. Reference attached sketches of the Mat slab bulkhead forms as an example. Stayform material shall be kept within 1.5'' of all exposed concrete surfaces. Is it acceptable to use Stayform?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Upon cursory review, the proposed Stayform product appears to be acceptable to use. Please confirm that it is compatible with the installation and performance of adjacent waterstop materials. Please submit formal substitution request and adhere to submittal requirements.

T-0414 **BGP - Cast Iron Supports** **Closed** **02/28/2013** **03/10/2013** **03/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: 7/P1-6001

Please reference attached drawing and Detail 7 on Contract Drawing P1-600I. Detail 7 does not specify any imensions of the pipe support assembly. SCCI interprets that detail 7 is purely conceptual and proposes that the pipe support assemblies ("goal posts") to be constructed per the attached drawings.

Is this acceptable?

Please note that the RFS (request for substitution) for attached product is forthcoming.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached detail is acceptable with the following comments:

Penetrating through the protection slab is not acceptable. Contractor shall submit information to TJPA Representative describing how the installation will occur to ensure the attachment system and work method will not penetrate the protection slab and impact the waterproofing system.

Provide plates for the vertical supports and additional support as needed.

T-0414.1 **BGP - Cast Iron Support** **Closed** **04/09/2013** **04/19/2013** **04/13/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: RFI T-0414
7/P1-6001

Per the response to RFI T-0414 (SCCI RFI #55), the EOR states the following:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable for 4" thick protection slab. However the protection slab slopes and from 4" max. the thickness becomes much less at lower points. In this case, the drilled hole is getting too close to the membrane and a pipe support with a grouted plate at

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

"Penetrating through the protection slab is not acceptable. Contractor shall submit information to TJPA Representative describing how the installation will occur to ensure the attachment system and work method will not penetrate the protection slab and impact the waterproofing system."

SCCI proposes the following:
The pipe support assembly will be anchored to the Protection Slab with the use of 2 ea- 1/2" diameter Hilti KWIK Bolt TZ or Hilti KWIK Bolt 3 expansion anchors. Holes will be drilled to the manufacturer specified minimum required hole-depths of 2-5/8". In order to prevent over-drilling through the 4" Protection Slab and damaging the waterproofing membrane, SCCI will use roto-hammers equipped with depth-gauges (see attached information for Hilti TE-50 manual). The depth-gauges will be set prior to drilling and checked periodically during drilling operations.

Please confirm if this is acceptable. If this is not acceptable, then please provide complete design details for Detail 7 on P1-6001

the bottom will have to be used.

Contractor to develop a protocol to verify the depth of the drilled holes at all locations and submit for review.

T-0414.2 **BGP - Cast Iron Pipe Support** **Closed** **05/02/2013** **05/15/2013** **05/13/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference: RFI T-0414 and T-0414.1

Per the response to RFI T-0414.1, the Designer states that the protection slab will be sloped with a 4" maximum slab thickness. SCCI does not plan to pour the protection slab with a slope. SCCI plans to pour the protection slab level and keep the protection slab consistently 4" thick.

The Designer suggests using a pipe support with a grouted plate for scenarios where the drilled holes may get too close to the membrane. It would appear that grouted plate would still require some type of embedded anchor. By adding the grout, the manufacturer's embedment depth

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed attachment method is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

for the anchor is shortened and the tensile (pull-out) strength will be reduced.

An alternative method to anchoring the pipe supports would be the use of 1/2" short drop-in anchors (see attached Red Head Multi-Set II information) which requires 1" of embedment into concrete. The holes would be drilled using a Depth Charge drill bit which is a 1" long bit with a shoulder to prevent over drilling.

Confirm if this is acceptable.

T-0415 **BGP - Wall and Coupler Modifications in Zone 1 Train Box** **Closed** **02/28/2013** **03/10/2013** **03/13/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Field Order T-00011 and SKA-2438 R2 attached

SKA-2438 includes proposed relocations and additions of rooms at the train platform level, specifically between gridelines 1 and 3.

1. Please confirm these proposed locations are final.
2. Please provide dimensions for these rooms.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The proposed general arrangements for the Fire Pump Room, Emergency Electrical Room and Fuel Storage Room shown on SKA-2438 R2 are substantially correct.

2. Please find attached SKAs- 2604, 2605, 2606 and 2607, showing the plan dimensions for the new and revised wall layouts of this area.

Note that we are continuing to coordinate Structural and MEP aspects for these revisions.

T-0416 **BGP - Geothermal Loop Pneumatic Testing Pressure** **Closed** **03/01/2013** **03/11/2013** **03/06/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per specification 23 57 34, 3.2, C

Per specification 23 57 34, 3.2, C, all individual loops shall be pressure tested at 100 PSI for 30 minutes before

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pneumatic Testing to 80psi is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

installation. The moisture content from the Hydrostatic test of the loop can compromise the fusion weld. As discussed in the DFOW meeting, S3H is recommending pneumatic testing of the pipe at 80 PSI. Upon complete installation of the loops and header piping, the complete sub group will be hydrostatically tested as specified. Please see attached documentation from Manufacturer regarding Pneumatic Testing and confirm pneumatic testing is acceptable.

T-0417 **BSE - Micropile W434.5 Addition per Contract Drawings** **Closed** **03/04/2013** **03/14/2013** **03/12/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: S1-2031 and Submittal TG0300-622.4

Micropile W434.5 was installed on 2/28/2013 per contract drawing S1-2031. However, W434.5 was not included in approved submittal TG0300-622.4.

Please confirm Micropile W434.5 is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Micropile W434.5 is required per the contract documents (S1-2031).

T-0418 **BGP - Revit CAD Files Confirmation** **Closed** **03/05/2013** **03/15/2013** **03/06/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Reference Document: Email attached.

Pursuant to the direction received from the TJPA, please confirm the CAD files which are to be extracted from the Revit model are consistent with the Contract Documents.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Ed Sum, this RFI is being voided with the recommendation that the Contractor review Contract Specification Section 00 08 07.

T-0419 **BGP - Foundation Walls Formwork Ties** **Closed** **03/07/2013** **03/17/2013** **03/12/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 03 10 00 2.2.B.7.E
Reference Drawings: See attached sketchs.

Please reference attachments and Specifications Section 03 10 00 2.2 B.7.e: "when removed, ties shall not leave holes larger than one inch diameter in concrete surface".

For the foundation walls formwork SCCI would like to utilize concrete inserts that will be used in subsequent concrete lifts. See attached sketches for conceptual/preliminary formwork design. Concrete inserts need to be rated for up to approximately 35 kips SWL (safe working load). As a result of this, the concrete ties need to have 1.5" to 2" outside diameter.

For the formwork involved with the 3ft thick foundation walls SCCI requests variance from the specifications referenced above and be able to use these bigger form ties. For all other interior walls including the shear walls, SCCI will comply with the Specification referenced above.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The use of any type of form tie/insert for the foundation wall is prohibited per specification 03 10 00 B.5 and B.7.a.

T-0419.1	BGP - Foundation Walls Formwork Anchors	Closed	03/14/2013	03/28/2013	03/26/2013	Potentially ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference RFI: T-0419
Reference Specification: 03 10 00-2.2 B.8.A, ACI Formwork Manual

There has been a misinterpretation of the specifications that were used to classify the referenced RFI No. 419.

Concrete inserts intended for use with wall formwork design depict Specification Section 03 1 0 00 2.2 B.8.A "Anchorages".

Per ACI Formwork Manual: "A concrete form tie is a tensile unit adapted to holding concrete form secure

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to use these contractor-proposed concrete formwork anchors.

Form anchors are not to penetrate full depth of the concrete wall.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

against the lateral pressure of unhardened concrete, with or without provisions for spacing the forms to a definite distance apart, and with or without provision for removal of metal to a specified distance back from the concrete surface." (ACI Formwork Manual 4-35)

"Form anchors are devices used to secure formwork to previously placed concrete of adequate strength; they are normally embedded in concrete during placement." (ACI Formwork Manual 4-36)

To reiterate, SCCI intends to utilize concrete inserts/anchors per attachments to secure and anchor the wall forms in place. Use of concrete inserts/anchors will leave 2" hole that will be patched once the form system is removed.

Is this acceptable?

T-0420 **BGP -Geothermal Loop Air Pockets** **Closed** **03/06/2013** **03/17/2013** **03/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: M-0006

Per contract, the geothermal lines are to run below the elevator and sump pits. This will cause a difference in elevation across the a geothermal pipe loop. This will create high points in the loop for bodies of air to gather or get traped. These air bodies or pockets can coalesce in stagnant water and potentially compromise the hydraulic stability. Typically air elimination systems are implimented at high points to remove these bodies of air after the initial flush/blowout.

Please advise how to handles these bodies/pockets of air.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSPFK Response: Air elimination devices are not feasible in a ground loop. Manual air vents will be provided inside the building in a future package.

T-0421 **BGP- Geothermal CDSM Grout** **Closed** **03/06/2013** **03/17/2013** **03/13/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Ref: Submittal pkg TG0601-010

Due to potential procurement issues with the submitted grout, S3H would like to confirm that the attached grout is acceptable as a backfill material for the CDSM wall excavation. This Supergrout is a high thermal conductivity grout designed for geothermal systems.

Please confirm it is acceptable as an alternate to the grout submitted.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable.

T-0422 **BSE - Micropiles W328, W344, W383 Relocation (Due to Overhead Obstruction)** **Closed** **03/06/2013** **03/17/2013** **03/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Submittal TG0300-622.4

Micropiles W328, W344, and W383 as laid out do not have adequate overhead clearance to be installed. BBII proposes moving Micropile W328 North 7.7' & East 3.7', Micropile W344 North 3', and Micropile W383 North 5' to provide adequate clearance. All three of these Micropiles are located south of J-Line and the Geothermal piping area. See attached sketch.

Please confirm these relocations are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropiles W328, W344, and W383 as proposed.

T-0423 **BSE -Subgrade pit dimensions per comments to TG0300-340.1** **Closed** **03/07/2013** **03/17/2013** **03/20/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2024,S1-2027, 7/S1-3010, A1-2817
Reference Specificaiton: 31 00 00
Reference Submittal: TG0300-340.1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed that BBII shall use the revised 20'-3 3/4" dimension, enlarging the pit equally to the north and south as stated on the submittal.

2) The dimensions noted for the GL35/C pit in returned submittal TG0300-340.1 are not new

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The response to Mud Slab Rebar Shop Drawings Submittal TG0300-340.1/TA1020-32001A06.1 provided new dimensions for depressions in the trainbox subgrade. Per 00 07 00 Part 6.02.A, BBII would like to clarify which dimensions are to be used for construction.

1. Sheet MS-4 of submittal shows subgrade depression between Grid lines 18 & 19 between Gridlines B & C having dimension of 20 '-0' x 40'-4". This is consistent with the dimensions provided on sheet S1-2024 Revision 2 dated 11/27/2013. The review comment by TT revises the 20'-0" dimension to 20'-3". Please confirm which dimension is to be used.

2. Sheet MS-7 of submittal shows subgrade depression at Gridline 35 between Gridlines B & C as having dimensions of 22'-1 3/4" x 18'-6 3/4". This geometry is base on the size of the pit shown on A1-2817 Revision 1 dated 11/27/2012 and 7/S1-3010 Revision 0 dated 08/30/2012. The Submittal response comments provided show a new overall dimension of 19' -9" and a specific offset to Gridline 35. Please confirm which dimensions are to be used.

3. Sheet MS-7 of submittal shows subgrade depression between Gridlines 34 & 35 at Gridline E. TT comment calls out 3'-0" from eastern limit of depression to Gridline 35. This dimension was not provided on sheet S1-2027 Revision 2 dated 11/27/2012. Please confirm this dimension is to be used.

4. BBII understands that dimensions provided on this submittal are to bottom of Mat Slab concrete, and that each dimension should be increased to account for thickness of protection slab and waterproofing. Please confirm that an additional 0'-7" is the correct dimension for this adjustment.

dimensions. Rather, they are the same dimensions as communicated on A1-2817 Revision 1 dated 11/27/2012 and 7/S1-3010 Revision 0 dated 08/30/2012. The sloping regions of the bottom surface of the thickened mat shall slope at a 1 to 1 slope, and remain 5'-0" MIN from the interior pit boundary as noted on 7/S1-3010. Thus, with these constraints the bottom of mat thickening dimension will be as marked up in the returned submittal (16'-9" from GL 35 to the western limit of the GL35/C depression). The 3'-0" dimension is the dimension from GL 35 to where the 1 to 1 slope turns vertical at the expansion joint/edge of mat. Returned submittal and contract documents do not conflict.

3) Confirmed that BBII shall use the 3'-0" dimension to GL 35 as noted in returned submittal TG0300-340.1 for the eastern limit of the GL 34-35/E depression.

4) The perpendicular dimension from the underside of the mat slab to the top of the mud slab is 4 1/2". This is 4" for the protection slab thickness, plus a 1/2" for the waterproofing zone.

T-0424	**BGP - Dewatering Wells / Monitoring Instrument**	**Closed**	**03/08/2013**	**03/18/2013**	**03/11/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawings: A1-8711
Reference Photo: Attached

Per plan sheet A1-8711 , Detail 3 & 6, the dewatering well and monitoring instrument pipes are plumb coming out of the mud slab. Additionally, these details do not show couplers or varying diameters on
the dewatering wells or monitoring instruments. Currently almost all of dewatering wells have varying diameters with couplers and are almost all out of plumb. The monitoring instruments also seem to be
out of plumb. To avoid the plumbness and varying dewatering well pipe diameter issues, is it acceptable to cut the dewatering well pvc pipe at or close to the mud slab elevation to avoid conflict
with the dewatering sleeves? How should SCCI handle the sleeves for the monitoring instruments that are out of plumb? Please advise.

No. It is not acceptable to cut the dewatering pvc pipe at or close to the mud slab elevation. The cut off must be well above the elevation of the waterproofing spiral wrap and ring plate.

The varying diameters and plumbness of each of the penetrating devices / pipes will require field measurement and shop drawings prepared showing adaptation of the sleeve detail to each unique situation.

T-0425 **BGP -Geothermal Trench Methods** **Closed** **03/08/2013** **03/18/2013** **03/19/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 31 23 34 3.3 F

Per Coordination Meeting March 6, 2013, S3H Inc. is looking to install the geothermal loop at a depth of 2' below the Mat slab. After the loop installation, the trenches will be back filled with 8" of loose native soil to protect the pipe. This 8" lift will be watered to settle the loose soil around the pipe. Upon watering and settling of the loose 8" lift, the remainder of the trench will be backfilled with native soil and compacted to the relative density of the surrounding soil per specification.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Item 1. F+K response: Depth of trench for geothermal piping shall be per mechanical drawings and specifications.

Item 2. Arup response: 8" of loose satisfactory soil material is per specification 23 57 34 paragraph 3.1.D.

Item 3. Arup response: The remaining backfill shall be compacted to 95% as required in the specifications.

T-0426 **BGP - Welded Wire Mesh in Sump and Elevator Pits** **Closed** **03/11/2013** **03/21/2013** **03/26/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Robert Kjome
Co-Author: Shimmick Construction Company, Inc Chris Williams
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Reference Drawing: S1-3004

SCCI is requesting to use welded wire mesh (specification attached) at the sloped surfaces of the sump and elevator pits. The welded wire mesh will inhibit concrete settlement towards the bottom of the pits during placement. Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Adding reinforcing into the protection slab is a means and methods proposal that falls under the Contractor's responsibility to work out issues related to this. If the Contractor elects to use reinforcing in the protection slab, he should bear responsibility for ensuing damage to the membrane should it occur. This includes use of inappropriate chairs as well as unrolling mesh with the wire ends facing down, traffic over the membrane during the installation, use of hooks to pull up the mesh and similar activities that could promote damage to the membrane assembly and subsequent leaking.

The membrane manufacturer should be apprised of the Contractor's intention to use the reinforcing insofar as it may affect the warranty. For record purposes, submit details and shop drawing for the protection slab reinforcing to the TJPA Representative (Architect). The proposal for this should be outlined in the waterproofing pre-construction meeting on March 27, 2013.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0427	**BSE - Back of CDSM wall allowable friction value.**	**Closed**	**03/12/2013**	**03/22/2013**	**03/27/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

WOJV is preparing details to connect and reinforce the Zone-4 walers. Please provide the value of back of CDSM wall allowable friction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

The available friction can be calculated using the following coefficients times the effective horizontal stress. Fill = 0.36; Bay Mud = 0.29; Marine Sands = 0.43; Lower Bay Mud = 0.29; Lower Marine Sands = 0.40; Old Bay Clay = 0.29. Guidance on the stratigraphy of the soil units is given in the Geotechnical Data Report.

Please note that differential movement between the soil and the back of the CDSM wall is required to mobalize this strength.

T-0428	**BGP - Geothermal Manifold Valves**	**Closed**	**03/11/2013**	**03/25/2013**	**03/22/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 23 57 34 2.1.B

In addition to the keystone valves submitted for the geothermal manifold, S3H is requesting to also install Nibco valves (specification attached) as allowed under specification 23 57 34 2.1.B. There are currently procurement issues with the submitted Keystone valves. All manifolds will be installed with similar valves. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Nibco is an acceptable manufacturer. Submit proposed valves for review per specifications for product data submittals.

T-0429	**BGP - Contract Limit Lines**	**Closed**	**03/11/2013**	**03/25/2013**	**03/22/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: S1-3206, S1-3201

Contract Drawing Sheet S1-3206 Section 4 depicts an elevation of the knockout walls along the West end of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The bold scope delineation line on Section 4/S1-3206 shall be at the top of +7.0' slab and the associated CJ. The only exception to this delineation would be at the southwest corner where the delineated ramp slab

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structure. Within this elevation the bold limit line for the contract TG0600 is shown well above the top wall CJ which does not align with Note 1 and the typical wall section on sheet S1-3201. Please clarify the proper location of the contract package TG0600 limit line on sheet S1-3206 Section 4.

meets and overhangs the foundation wall above the +7.0" elevation. Refer to 1/S1-2251 for this area

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T-0430 **BGP - Trainbox Shear Wall STD Hook** **Closed** **03/11/2013** **03/22/2013** **03/20/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Drawings: S1-3260

Detail 2 of S1-3260 depicts standard hook reinforcement between the horizontal ties in the shearwall above the lower concourse; however, it is not clear if the standard hooks are required in the shearwall below the lower concourse. Please confirm if standard hook reinforcement is required in between the center shear wall ties. If standard hooks are required, please provide detail for the layout of the standard hooks in between the center shear wall ties.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The standard hook reinforcement is required only at the edge of wall condition, and therefore, not required below the lower concourse at the center shearwall ties. For the center location, the horizontal bars are continuous when you are below the lower concourse level.

T-0431 **BGP - Knockout Wall, Top of Wall T-Head** **Closed** **03/12/2013** **03/26/2013** **03/22/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: S1-3206
Reference Specification: 03 20 00

Dwg. Sheet S1-3206 Section 4 depicts the vertical reinforcing at the top of wall without a T-headed bar. Please confirm that a T-headed bar is not required at the top of the vertical bars throughout the knockout wall area.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the T-head is not required at the top of the vertical bars throughout the knock-out wall area.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0432	BGP - Shear Wall Layout	Closed	03/12/2013	03/26/2013	03/19/2013	Potentially	

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawings: S1-2250, S1-2030

The Northern-most shear wall when laid out based on the details (angle = 38.4 degrees from GL H) and dimensions (30'-5 7 /8") per contract drawing sheet S1-2030 do not conform with the dimensions provided on contract sheet S1-2250 Section 1. Please confirm which layout is correct and directions how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The northernmost shearwall length is as defined by the edge of slab dimension on S1-2250. This wall does deviate from the typical length, however, note that a shearwall length is defined starting from the centerline of wall intersecting with the face of foundation wall and not as the RFI sketch has interpreted.

T-0433	BGP - Columns Within the Shear Wall	Closed	03/12/2013	03/22/2013	03/21/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 03 20 00
Reference Drawing: S1-2250, S1-3306

The two columns C19 and column C38 depicted on contract drawings Sl-2250, Section 1 all appear to be located adjacent to the opening and per the plan view are graphically represented as diamond shaped. When referencing contract drawing sheet S1-3306 these columns are graphically and dimensionally represented as square and not diamond shaped. Please confirm the geometry of these columns matches that as shown on S1-3306.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired C19 & C38 columns are diamond shape in plan where the 3 sides match the shear wall geometry at the edge of opening below and the 4th side is 24" away from and parallel to the end of wall at opening below. Reinforcement & detailing of S1-3306 shall apply to this shape.

T-0434	BSE - Micropile W603 Installed 1' South (Below ground obstruction)	Closed	03/13/2013	03/23/2013	03/15/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref:Submittal TG0300-622.4

Micropile W603 was relocated 1' South of original location after encountering grout from the adjacent pin pile. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to the relocation of Micropile W603 a distance 1' to the south as shown in this RFI.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0435	**BGP - Flame Cutting of Reinforcement**	**Closed**	**03/11/2013**	**03/25/2013**	**03/22/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Specification: 03 20 00-3.1.6.A

Project specification section 03 20 00-3 .1.6 states "Do not heat or flame cut bars;" however, this statement is a subpart to section 03 20 00-3.1.6. "Bend bars cold." It is unclear if the statement regarding to heating and flame-cutting of bars exclusively applies to bending of bars. Please confirm that heating and flame-cutting for purposes other than that of bending of bars is permitted.

Also, please refer to the attached section from CRSI which states that flame-cutting of bars have no adverse effects on
reinforcement.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Heating and flame-cutting of bars is prohibited unless approved by EOR

T-0435.1	**BGP - Flame Cutting Follow-Up to RFI 435**	**Closed**	**05/02/2013**	**05/10/2013**	**05/14/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference: RFI T-0435, 03 20 00-3.1.6.A

The response to RFI T-0435 indicated that heating and flame cutting of reinforcing is prohibited unless approved by the EOR and per further discussion about this matter with the engineer it was requested that specific applications be submitted for further review. The following is a list of those applications:

1. Penetrations in Slabs, Walls or Decks. Torch used to cut opening into reinforcing based on final asbuilt layout of penetration.

2. Support Bar. Torch used to trim or remove support/give-away bar due to conflict or other project need.

3. Column Rack/Crush Bar Removal. Torch used to remove rack and crush bars from columns to allow for tremie insertion and additional open space through center of column after column erected into place.

4.Unforeseen Conflicts. Project conflicts that are identified

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. From the 05/09/2013 W/OJV Assist Meeting, it was discussed the intention for the need to flame-cut at penetration openings was for trimming straight bars around mat openings or pit edges to achieve proper clear cover that will be spliced with an "L" bar as detailed in contract documents & reflected in the rebar shop drawings and that the use of cutters or saws are not applicable/practicable. It will be acceptable to trim the ends of the Mat and Lower Concourse slab straight bars at openings and pit edges via flame-cutting to achieve detail intent.

2 & 3. Handling of construction aids is means and methods and we do not have any comments.

4. See response to item 1 regarding what will be allowed. For the CDSM shoring wall pile conflict application, it was discussed at the 05/09/2013 W/OJV Assist Meeting that flame-cutting would not be required for necessary adjustments at the mat and that the edge mat bars could be slid inward as required. While we are in support of facilitating

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during the course of work and require trimming or removal of reinforcing steel to correct condition. Example CDSM pile conflict.

Please confirm the use of a torch/flame is allowable for the applications listed above.

construction efforts, the term "unforeseen conflicts" is too vague to allow a blanket approval. If there are other repetitive and already known conditions that the contractor finds flame-cutting necessary, please submit for review with detailed description.

General comments:

A. Flame-cutting shall not damage the work of other trades, such as but not limited to: Waterproofing, formwork, etc.

B. Flame-cutting shall not compromise design intent of reinforcement detailing.

T-0436 **BGP - Elevator Rail Support Width** **Closed** **03/13/2013** **03/23/2013** **03/21/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: Section A of 4/S1-7630

Please confirm that the dimension from the left end of the 1/2" embedded plate to the center of the welded headed stud is 3".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Note that detail 4A/S1-7630 specifies the dimension of 1/2" from top of HSS12x6 to 5/8" plate and that the 5/8" plate is shaped with a top edge at a 1:1 slope. This slope starts at the side of the HSS. With the welded studs centered on the HSS and spaced at 1'-0" on center, that leave 3 1/2" from center of welded stud to edge of 1/2" embedded plate.

T-0437 **BGP - Geothermal Riser Conflict with Soldier Pile** **Closed** **03/13/2013** **03/23/2013** **03/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification:23 57 34

As laid out per the approved shop drawings, the GLS/GLR Riser for the geothermal loops is in conflict with the soldier pile in the field. Please confirm that the riser can be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Geothermal riser shall be located to the East of Soldier Pile 36 (between 36 and 37).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

relocated to the next CDSM wall panel to the West.

T-0438 **BGP - Knockout Wall CJ** **Closed** **03/12/2013** **03/26/2013** **03/21/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: 4/S1-3206

Reference Dwg. S1-3206 Section 4 - knockout wall section details. Since knockout walls are to be constructed independent of the rest of the structure, SCCI intention is to construct the knockout walls in two lifts. SCCI suggests eliminating bottom horizontal CJ of the knockout walls, as shown on the attached marked up drawing.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed elimination of bottom CJ in knock-out walls is acceptable.

T-0439 **BGP - Mat Slab Elevator Opening Embeds** **Closed** **03/13/2013** **03/23/2013** **03/27/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Drawings S1-2052 through S1-2061, 1/S1-7004, 12/S1-7602, 3/S1-3006, S1-3004, S1 -3008.

Please reference attached drawings of Mat Slab openings and Embeds. Drawings S1-2052 through S1-2061 show the locations of openings in the Mat Slab. At gridlines 1.8-E on drawing S1-2052 there is an elevator opening. Detail 1 on Drawing S1-7004 is the elevator opening from S1-2052 and shows the opening having two L8x4xl/2 full length embeds at the Mat Slab. See Detail 12 on attached drawing S1-7602 for embed. S1-2052 and detail 1 on S1-7004 both have cut lines referencing Detail 3 on S1-3006 showing the Mat Slab Pit details at this location. There are additional elevator openings on drawings S1-2054, Sl-2055 and S1-2057. These" openings reference drawings S1-3004 and S1 -3008. Detail I on S1-7004 does not

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, the only elevator pit that gets embedded angles is the one located at gridlines 1.8-E, and as shown on 1/S1-7004.

See the attached sketch SKS-0184, where the reference for the lengths of these embeds have been modified.

The other elevator pits referenced in this RFI are not fully constructed as part of the Below Grade Package, and the tops of these elevator pits and additional embedded angles will be installed in a future package that includes the train platforms.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

correspond to the openings on S1-2054, S1-2055 and S1-2057. Therefore, the only elevator opening that has L8x4xl/2 full length embeds on the Mat Slab is located at gridline 1.8-E.

Please advise if this is correct.

T-0439.1 **BGP - Mat Slab Elevator Opening Embeds** **Closed** **03/29/2013** **04/08/2013** **04/09/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref: RFI T-0439, SKS-0184

Please reference attached drawing. The response to WOJV RFI T -0439 modifies the continuous embedded assemblies to be four L8" x 4" x W' x 1 '-2" elevator post bases as depicted on Contract Drawing S 1-7600 Detail 11. The RFI response does not show the location and spacing of the embedded assemblies.
Please provide locations and spacing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The embedded angles are centered under each elevator post. Final elevator post locations shall be coordinated with elevator manufacturer.

If an elevator provider is not awarded a contract in time for construction, the following alternate may be used. In lieu of the L8x4x1/2 x1'-2" embedded angles, a continuous L8x4x1/2 angle with welded studs at 12" may be used. The HSS guiderail post will be welded to the embedded angle in the field after an elevator provider has been selected.

T-0439.2 **BGP - Mat Slab Elevator Opening Embed Dimensions** **Closed** **05/10/2013** **05/24/2013** **05/15/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref. RFI T-0439.1

TJPA's response to RFI T-0439.1 stated "Final elevator post locations shall be coordinated with elevator manufacturer." The response has a second option to use a continuous L8x4x1/2 in lieu of the 1'-2" base. Please provide the elevator post locations if an elevator manufacturer has been selected? If not, SCCI is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

requesting to use continuous embeds. Please advise if this is acceptable.

T-0440 **BGP - Glass Guardrail Embeds** **Closed** **03/12/2013** **03/26/2013** **03/20/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Reference Drawings: 7/S1-3410, S1-2202-2207, S1-2210, S1-2211

Please reference attached drawings of Concourse Level glass guardrail embeds and openings. Detail 7 on drawing S1-3410 is the typical PL 3/8x7 glass guardrail embeds for escalator and stair openings. The detail states that the guardrail embeds are continuous. It is unclear what the boundaries of the guardrail embeds are. SCCI has determined that no guardrail embeds are necessary at the opening locations where future CMU or concrete walls shall be constructed flush with the opening. Also, the guardrail embeds can be terminated at the escalator openings where the opening is reduced. Attached drawings Sl-2202 through Sl-2207, Sl -2210 and S1 -2211 show the limits SCCI has determined the glass guardrail embeds shall be installed. Please advise if these locations are accurate and the only locations the guardrail embeds shall be installed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The markups on the RFI sketches have interpreted the locations of glass guardrail embeds at openings correctly with the exception of GL 34 south opening where the west side of the opening does not have a future wall and will require a guardrail embed.

T-0440.1 **BGP - Glass Gaurdrail Embeds** **Closed** **08/05/2013** **08/15/2013** **08/16/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Drawings, RFI T-0440

Please reference attached drawings (Sl-2204 through Sl-2207, Sl-3410), and RFI T-0440 response. Per ASJ 104, future walls addressed in RFI T -0440, have been revised.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to the attached SKA's-2794, 2795, 2796, 2797 & 2798 for the locations of the glass guardrail embeds at the Lower Concourse Level.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per ASI 104, the attached drawings show the limits SCCI has determined the glass guard rails shall be installed. Please confirm these locations are correct and are the only locations the guardrail embeds shall be installed.

T-0441 **BSE - Micropile W638 Relocation (Dewatering Well Conflict)** **Closed** **03/14/2013** **03/24/2013** **03/19/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Submittal TG0300 - 622.4

Micropile W638 as laid out is in conflict with a dewatering well. BBII proposes moving Micropile W638 East 2' to provide adequate clearance. This Micropile is located south of J-Line and the Geothermal piping area. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to shifting Micropile W638 as proposed.

T-0442 **BGP - Geothermal Riser Bracket Details** **Closed** **03/14/2013** **03/24/2013** **03/18/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

As requested in the Geothermal Meeting with the TJP A and Turner, please confirm that the attached details for the geothermal pipe riser brackets are acceptable. These details clarify the offset from the face of the CDSM wall required to avoid conflict with the water proofing membranes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable.

T-0442.1 **BGP - Geothermal Riser Bracket Details** **Closed** **03/21/2013** **03/31/2013** **03/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

SUGGESTION:

ANSWER:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

As requested in the Geothermal Meeting with the TJPA and Turner, please confirm that the attached details for the geothermal pipe riser brackets are acceptable. These details clarify the offset from the face of the CDSM wall required to avoid conflict with the water proofing membranes.

Accept Suggestion: ☐

The detail shown on the RFI sketch is acceptable.

T-0443 **BGP - C Channel Confilct with Geothermal Pipe Riser** **Closed** **03/12/2013** **03/26/2013** **03/21/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 23 57 34
Reference Photo: Attached

Shimmick plans to excavate the geothermal pipe risers in one lift up the CDSM wall. There is currenlty no clearence behind the C-Channels for Shimmick to excavate the geothermal pipe risers. Please confirm that the C-Channels will be removed from the shoring system prior to the geothermal riser installation or provide an alternative location for the risers.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

These channels are part of the BSE TG03 Contractor's Internal Bracing System. Coordinate removal of these steel channels with the CM/GC.

T-0443.1 **C-Channel Removal prior to Mat Slab and Re-bracing installation.** **Closed** **03/20/2013** **03/30/2013** **03/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

The Geothermal Risers are to be installed up the CDSM wall to ground level in one sequence. Please confirm it is acceptable to remove the C-Channels prior to Mat slab and Re-bracing installation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response issued for RFI T-0443. This is a CM/GC coordination issue.

T-0445 **BGP - Mat Slab Pour Length** **Closed** **03/14/2013** **03/28/2013** **03/21/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification: 03 30 20 3.2
Reference Sketch: CJ-03 (Mat Slab pour S112)

SCCI has revised the construction joint layout to address CJ submittal comments, and has modified locations of the CJ's to have all concourse CJ's line up with the wall CJ's, be under 60' long, and fall within center third of the span (as specified). As a result of trying to maintain the wall and concourse CJ's within the specified parameters one of the Mat slab pours (S112) will need to extend to 121', which is 1' over the specified length.

Is it acceptable to have pour S112 (that falls between grid lines 22 and 26) 121' long (East-West direction)?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes this is acceptable for pour S112.

Provide updated Construction Joint Layout submittal reflecting these changes.

T-0446 **BSE - Micropiles W390 & W393 Relocation (Overhead Obstruction)** **Closed** **03/18/2013** **03/28/2013** **03/19/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Ref: Submittal TG0300-622.4 and TG0601-009.1

Micropiles W390 and W393 cannot be installed as laid out due an overhead obstruction. BBII proposes moving W390 West 16" to provide adequate clearance. BBII proposes moving W393 West either 10" or 2'-10" to provide adequate clearance. The proposed location for Micropile W390 will be South of the geothermal area. The proposed locations for Micropile W393 will be within the geothermal area; however, the proposed
locations do not appear to impact geothermal piping and the 12" minimum clearance between pipe and piling will be maintained (Note 4 on Geothermal Submittal sheet GT-Zone-02).
See attached sketch.
Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to shifting Micropiles W390 and W393 as proposed.

T-0447 **80 Natoma Shoring Beam in Sump Pit** **Closed** **03/18/2013** **03/28/2013** **03/20/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

Reference RFI: T-0317.3
Reference Photo: attached

BBII has confirmed that the 80 Natoma H pile (shown in attached photo) has been demolished to the -44.5 ft required per Sheet D-2210 and RFI T-0317.3. Please provide depth that BBII must demolish the attached 80 Natoma H pile so not to conflict with geothermal piping.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BBII IFC drawing D-2210 shows 80 Natoma Shoring wall to be removed to elevation -44'-6" also GT-2101 shows the Subgrade elevation of Pits to be -44'- 9" .

Deeper removal of the 80 Natoma wall beams are not required in order to allow clearance for the geothermal piping. The TG06 Contractor has taken these into account (Refer to Geothermal Loop Piping Submittals)

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0448	**CDSM Soldier Pile Encroachment**	**Closed**	**03/19/2013**	**03/29/2013**	**03/27/2013**	**Potentially**	☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A-H

In follow up to the 3/13/13 meeting with AAI and TT regarding the CDSM soldier pile (SP) encroachment WOJV's proposal for mat slab area #1 (Exhibit-A) is as follows:

Marked up sheets SH-2000 (Exhibit-B) and SH-2001 (Exhibit-C) depict the location of the encroaching SPs and the degree in which they are encroaching.

Predicated on SE stamped detail A/SLC.1 (Exhibit-D):

A. At (4) SPs 753, 761, 765, & 787, WOJV is proposing to decrease the wall thickness to 34-1/2" with #11 rebar spacing to 6" o.c. between the centerline of the (2) adjacent piles. For example, as depicted in SK-T-0448.1 (Exhibit-E) SP #753 encroaches 1-1/4". WOJV would reduce the wall thickness while reducing the rebar spacing to compensate for the reduced wall thickness to clear the encroaching SP as depicted in SK-T-0448.2 (Exhibit-F).

B. At SP 819 WOJV is proposing to decrease the wall thickness to 33 3/16" with #11 rebar spacing to 6" o.c. between the centerline of the (2) adjacent piles. Similar to above, as depicted in SK-T-0448.3 (Exhibit-G) SP #753 encroaches 2-3/16". WOJV would reduce the wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to reduce the foundation wall thickness with reinforcement spacing reduction as proposed for the 5 inquired locations.

Note that this is not a pre-approval for future conditions that may arise. W/O shall coordinate these approved modifications with shop drawing preparation.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

thickness while reducing the rebar spacing to compensate for the reduced wall thickness to clear the encroaching SP as depicted in SK-T-0448.4 (Exhibit-H).

WOJV did review the possibility of cutting the W21x201 flanges to accommodate the encroachment however, this high risk remedy was ruled out as it could jeopardize the project shoring system.

Please advise.

T-0448.1 **BGP - CDSM Soldier Pile Encroachment, mat areas 1&2 all levels (Exhibit-A).** **Closed** **04/26/2013** **05/06/2013** **04/26/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Marina Rosso

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Ref: T-0448, SH-2001, SH-2000

Previous RFI response #T-0448 (Exhibit-A) only addressed the impact of the encroaching CDSM soldier piles (SPs) on the first or bottom wall segments. This RFI address the encroaching SPs in mat slab areas 1&2 (Exhibit-B) at all levels of wall. This RFI shall supersede previous RFI response #T-0448.

Marked up sheet SH-2001 (Exhibit-C) depicts the location of the encroaching SPs and the degree in which they are encroaching.

1. SP #753 in mat area #2 encroaches 1-1/4" at elevation -34.12.
WOJV is proposing to decrease the specified 36" wall thickness to 34-3/4" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

2. SP #761 in mat area #1 encroaches 7/8" at elevation -34.12.
WOJV is proposing to decrease the specified 36" wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

thickness to 35-1/8" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

3. SPs #765-770, vary in the degree of encroachment the worst of which is SP #765 in mat area #1 which encroaches 1-7/8" at elevation 25.10.
WOJV is proposing to decrease the specified 36" wall thickness to 34-1/8" to clear the encroaching SPs. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

4. SP #787 in mat area #1 encroaches 7/8" at elevation -34.42.
WOJV is proposing to decrease the specified 36" wall thickness to 35-1/8" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

Marked up sheet SH-2000 (Exhibit-E) depicts the location of the encroaching SPs and the degree in which they are encroaching.

1. SP #819 in mat area #1 encroaches 2-3/16" at elevation -34.24.
WOJV is proposing to decrease the specified 36" wall thickness to 33-13/16" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

T-0448.2 **BSE - CDSM Soldier Pile Enchroachment** **Closed** **04/29/2013** **05/09/2013** **04/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Ref: T-0448, SH-2001, SH-2000

Previous RFI response #T-0448 (Exhibit-A) only addressed the impact of the encroaching CDSM soldier piles (SPs) on the first or bottom wall segments. This RFI address the encroaching SPs in mat slab areas 1&2 (Exhibit-B) at all levels of wall. This RFI shall supersede previous RFI response #T-0448.

Marked up sheet SH-2001 (Exhibit-C) depicts the location of the encroaching SPs and the degree in which they are encroaching.

1. SP #753 in mat area #2 encroaches 1-1/4" at elevation -34.12.
WOJV is proposing to decrease the specified 36" wall thickness to 34-3/4" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

2. SP #761 in mat area #1 encroaches 7/8" at elevation -34.12.
WOJV is proposing to decrease the specified 36" wall thickness to 35-1/8" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

3. SPs #765-770, vary in the degree of encroachment the worst of which is SP #765 in mat area #1 which encroaches 1-7/8" at elevation 25.10.
WOJV is proposing to decrease the specified 36" wall thickness to 34-1/8" to clear the encroaching SPs. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

4. SP #787 in mat area #1 encroaches 7/8" at elevation -34.42.
WOJV is proposing to decrease the specified 36" wall thickness to 35-1/8" to clear the encroaching SP. WOJV

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

Marked up sheet SH-2000 (Exhibit-E) depicts the location of the encroaching SPs and the degree in which they are encroaching.

1. SP #819 in mat area #1 encroaches 2-3/16" at elevation -34.24.
WOJV is proposing to decrease the specified 36" wall thickness to 33-13/16" to clear the encroaching SP. WOJV would reduce the wall thickness while compensating by supplementing the base contract #11 bars @ 8" o.c. with intermediate #7 bars (Option #3 Exhibit-D) exclusively at the level of encroachment.

Please confirm that WOJV's proposed solutions are acceptable.

T-0448.3 **BGP - CDSM Soldier Pile Encroachment, mat areas 1&2 all levels.** **Closed** **05/03/2013** **05/17/2013** **04/26/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Marina Rosso

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Reference: Previous RFI #T-0448, Related RFI #T-0530.

Previous RFI response #T-0448 only addressed the impact of the encroaching CDSM soldier piles (SPs) on the first or bottom wall segments. This RFI addresses the encroaching SPs in mat slab areas 1&2 at all levels of wall. This RFI shall supersede previous RFI response #T-0448.

Please see attachment SK-1 for RFI T-0448.3 questions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware

T-0448.4 **CDSM Soldier Pile Enchroachment** **Closed** **05/09/2013** **05/19/2013** **05/24/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Webcor/Obayashi Joint Venture

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Previous RFI #T-0448, Related RFI #T-0530.

Previous RFI response #T-0448 only addressed the impact of the encroaching CDSM soldier piles (SPs) on the first or bottom wall segments. This RFI addresses the encroaching SPs in mat slab areas 1&2 at all levels of wall. This RFI shall supersede previous RFI response #T-0448.

Please see attachment SK-1 for RFI T-0448.4 questions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Foundation wall modification proposals 1-10 are not acceptable. Comments are as follows:

A.) This RFI supersedes RFI #T-0448. The proposed rebar scheme in this RFI differs from previously suggested solution without providing calculations that show proposed additional rebar compensates for reduction in moment and shear capacity of the foundation wall cross-section due to shoring encroachment.

B.) Reinforcement for knock-out walls (west of mat slab area #1) differ from those in typical foundation walls (e.g., see S1-2060 for section call out). Provide solutions for knock-out walls.

C.) Provide an elevation sketch that shows the proposed vertical extent and detail of added rebar.

D.) Lap splices are not allowed in additional rebar. Use Type 2 mechanical couplers.

E.) Provided generic cross-section detail is insufficient to show the actual location of the added rebar in plan. The extent of the applied options should be shown on plan for clarity.

F.) Reference SK1 is not included in this RFI.

G.) Maximum encroachment dimension provided for SP(s) #737-739 does not match maximum dimension provided in SK-2 and SK-3, please reconcile.

H.) Do not refer to a superseded RFI (in SK-3 comments column for pile 819).

I.) Coordinate all modifications with future shop drawings for TG06.

T-0448.5	**CDSM Soldier Pile Encroachment**	**Closed**	**06/04/2013**	**06/14/2013**	**06/13/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Documents: Exhibits A - G

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the South wall in slab area 1 & 2 as well as all levels of the encroachment into the foundation wall between CDSM piles 733 and 772. (Exhibit A)

Exhibit B & Exhibit C depict the location and degree in which the SPs are encroaching.

WOJV proposal: Between SPs 733 and 772 (which is the intersection of the South and West wall) WOJV is proposing to decrease the specified 36" wall thickness to 33 1/8" to clear all the encroaching SPs. WOJV would reduce the thickness while reducing the rebar spacing to compensating for the reduced wall thickness predicated on SE stamped Detail A/SLC.1 (Exhibit D) this modification would clear all the encroaching SP/steel plate issues between 733 & 772, See Exhibit E, F, & G.

This modification, if approved, would be incorporated into the TG06 shop drawings.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed modification to foundation wall reinforcement is acceptable. W/O to coordinate these changes with TG06 contractor, including previously-approved mat rebar shop drawings for this zone.

T-0449	BGP - Pre-Installation Conference Meeting Minutes-Waterproofing	Closed	03/19/2013	03/29/2013	03/21/2013	Potentially ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jack Adams

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Specification Section -01 12 00 1.5.D, 07 12 10 1.3.B.2 and 00 07 00 1.05

There appears to be a conflict in responsibility and duration between Specification Section 01 12 00 - 1.5.D, Project Meetings and 07 12 10-1.3.B.2, Modified Bitumen Waterproofing- see the attached PDF.

"Project Meetings" states the TJP A is responsible for preparing the meeting minutes and then distribute them with 2 days after the conference while the "Modified

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no conflict. The meeting minutes will be prepared and submitted by the Contractor within 3 days after the meeting per Spec. 07-12-10 Modified Bitumen Waterproofing. Preinstallation meeting minutes are the responsibility of the Contractor per Spec. 07-12-10 Para 1.3 Administrative Requirements which states; "The following requirements are in addition to the provisions of Spec. 01-12-00 and 01-14-00." "The minutes of the conference shall be submitted by the Contractor to all attendees and interested parties no less than 3 days after the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Bitumen Waterproofing" section seems to indicate the Contractor/Trade Subcontractor is to prepare the minutes and distribute them no less than 3 days after the conference.

Based on General Conditions 00 07 00-1.05, entitled Precedence of Contract Documents, confirm the TJPA will prepare and distribute the Modified Bitumen Waterproofing Pre-Installation Conference Meeting minutes per Section 01 12 00-1.5.D.

conference."

T-0450 **BSE - Dewatering Casing Tolerances** **Closed** **03/19/2013** **03/29/2013** **03/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification Section: 31 23 19

Please confirm the TG03 contract documents tolerance for the plumbness of the dewatering well casings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Plumbness of the dewatering well is not explicitly mentioned in the specifications. However Dewatering Specification section 31 23 19 1.11 C states "Coordinate work to avoid clashes with....and other items to be installed as part of the permanent structure" and detail 6 / A1-8711 shows the Dewatering Pipe drawn plumb and fitting snug within the steel sleeve.

T-0451 **BGP - Mat Slab Construction Joint Dimensions** **Closed** **03/19/2013** **03/29/2013** **03/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Specification:031000
Reference Drawings:S1-3001

Please reference attached sketches of mat slab construction joint (CJ), and detail 2 on S1-3001. Detail No. 2 on CD S1-3001 shows CJ for the mat slab 5 thick section, however, the contract drawings do not provide

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to maintain the 1'-8" wide by 10" deep key for the mat slab construction joint at thickened mat and chamfer areas as shown on the RFI sketch. Although not inquired about, note the foundation wall key h/6 dimension on section c-c should be 6" and not 5" as detailed on sketch.

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details/dimensions for the thickened portion of the mat slab at the pits (sump pits, elevator pits, etc.), and the 3 ft chamfer. SCCI suggests maintaining mat slab keyway at 1'-8" wide and 10" deep (as shown on detail 2 on S1-3001) for all mat slab CJ's, and as shown on attached sketch.

T-0452 **BGP - Concrete Beam Under Slab** **Closed** **03/19/2013** **03/29/2013** **03/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 033020
Refererence Drawing: S1-2251, S1-3205, S1-3400

Please reference the Vehicle/Bike ramp framing plans on S1-2251. Detail 1 calls for a 36" x 48"concrete beam below the ramp slab. However, this concrete beam is not indicated in section detail 7 on S1-3205. The beam size and specifications as described on S1-2251 does not match a beam listed in the beam schedule on sheet Sl-3400. The plan on Sl-2251 does not clearly show where this beam begins and ends.

Please provide additional information and clarification regarding this 36" x 48" concrete beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 7/S1-3205 is not intended for the beam but for the ramp slab over foundation wall with corbel condition. The inquired concrete beam is cantilevered from the face of the foundation wall. Although this beam is not marked as a scheduled beam, the info required for detailing is provided. Longitudinal bars and stirrup info is called out. Typical detail 2/S1-3401 shall apply for a cantilever condition and the longitudinal top bars shall extend minimum LTE into the foundation wall.

T-0453 **BGP - Angle Steel Beam Connections** **Closed** **03/19/2013** **03/29/2013** **03/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification:032000
Reference Drawings:S1-3411, S1-2251

Please reference the Vehicle/Bike beam end support detail 1 on S1-3411. The L8x8 connections appear to be shown to be fabricated at a 90 deg angle between the foundation wall and the Vehicle/Bike beams. Per Detail 1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For inquired non-90 degree angle conditions, L8x8 can be bent to angle required.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

on sheet S1-2251, the beams are shown to be intersecting the foundation wall at varying angles. SCCI requests further clarification/details at the beam locations for the fabrication of the L8x8 connections.

T-0453.1 **BGP - Vehicle/Bike Beam End Supports** **Closed** **04/11/2013** **04/21/2013** **04/22/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref: RFI T-0453, AI-7401, SK-115

Please reference attached drawings. RFI T-0453 stated that the L8x8x1 1/8" shall be bent to match the angle at which the Vehicle/Bike ramp beams meet the wall. At the western most beam the acute angle at which the beam meets the wall is 56 degrees and the obtuse angle is 124 degrees. See attached marked up Contract Drawing Al-7401 for angle measurements. Bending the 1 1/8" thick legs of the L8x8 is not feasible and would structually stress the member. SCCI proposes to weld two 1 1/8" plates together to fabricate the angles. See attached drawing SK-115 for details. The additional two beam members shall be fabricated per the measured angles.

Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to weld two 1 1/8" plates together to create the (2) angles for the western most beam, provided a complete-joint-penetration (CJP) weld is used.

T-0453.2 **BGP - Clarification of Vehicle/Bike Beam End Support** **Closed** **10/02/2013** **10/12/2013** **10/16/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing S1-2251, S1-3411. A1-7401 and SCCI sketch SK-115.

Per RFI response T-0453.1, it is acceptable to weld two 1 1/8" plates together to create the (2) angles for the western most beam indicated on drawing A1-7401.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/14/2013
RESPONSE:
Confirmed

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm the Vehicle/Bike Ramp end support acute angle is 56-degrees and obtuse angle is 124-degrees as shown in the attached SCCI sketch SK-115.

T-0454 **BGP - Steel Cap Collar Weld Location** **Closed** **03/19/2013** **03/29/2013** **03/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 055010
Reference Drawings: S1-3003, A1-8711, Submittal No. TG0600-036

Please reference attached Contract Drawing Sl-3003 and Al-8711 along with approved as noted dewatering pipe sleeve shop drawing. The 3 dewatering sleeve drawings depict conflicting weld locations for the 5/16" fillet weld of the steel cap collar to sleeve connection (see highlighted drawings).

Please clarify/confirm the location of this weld.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Provided the sleeve and collar are welded together (in the shop) before the mat is poured, the location of weld in the shop drawing is acceptable. If instead the collar must be installed onto the sleeve in the field after the mat is poured, then weld access will be a limiting factor that will require the weld to occur as shown on S1-3003.

T-0455 **BGP - Out of Plumb Dewatering Casing** **Closed** **03/19/2013** **03/29/2013** **03/27/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification:055010-3.2.C
Reference Drawings: S1-3003
Reference Photo: attached

Please reference Sheet S1-3003 of the Contract Drawings and Spec Section 055010-3.2.C SCCI spot checked two of the existing dewatering wells for plumbness and found them both to be approximately 3/4" over 48" out of plumb (see attached photos). With this existing condition, SCCI can not adhere to the plumbness tolerance (1/16") for installation and maintain the required 1/2" maximum gap between sleeve and casing per Section 2 of Sheet S1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the existing dewatering wells, we will not object if the maximum gap between sleeve and dewatering well casing exceeds 1/2" for those dewatering wells found to be out of plumb.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3003. SCCI suggests increasing the diameter of the sleeve and granting a variance on the 1/2" gap tolerance per Sheet S1-3003. SCCI will maintain adherence to the installation tolerances in Spec Section 05 50 10.

T-0455.1 **BGP - Dewatering Well Above Grade PVC Pipe** **Closed** **03/29/2013** **04/08/2013** **04/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Drawings: A1-8711

Per discussion in the pre-installation and preparatory DFOW meetings for the metal fabrication penetration sleeves, the PVC dewatering casing above the mud slab can be cut just above or at top of mud slab elevation to avoid varying diameter issues. Without the dewatering casing present above mud slab grade, the varying casing diameter issues and plumbness issues are solved. The to avoid debris entering the dewatering casing, the casing would not be cut until the penetration sleeve is to be installed. Please confirm per the discussions in the meeting that cutting the casing is acceptable. Please note that the grouting back of the dewatering casing shortly after the decommissioning of the dewatering pump will be uniform (without segregation) for both below mudslab elevation and above.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The description contained in RFI T-0455.1 is acceptable. Note that dewatering casings that require to be cut, should be cut above the top of mud slab (not at the top of mud slab).

T-0456 **BGP - Mass Concrete Temperature Monitoring Equipment Installation in MAT Slab** **Closed** **03/25/2013** **03/25/2013** **04/03/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 03 30 20 (3.11.A & 1.3.A.8)

Per Specifications 03 30 20 (3.11.A & 1.3.A.8), SCCI will install temperature monitoring devices at specified locations and depths. These instruments use RFID Tag technology for communitcation with the data logger. The

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to proposed method presented in RFI.

GC to coordinate waterproofing requirements with waterproofing subcontractor and submit proposed waterproofing details in the shop drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

RFID transmiter, which is wired to the temperature monitoring device, will be elevated out of the concrete. SCCI will tie a 1/4" diameter fiberglass, or similar non-corrosive, rod to the reinforcing mat. The temperature monitoring RFID transmitter will then be elevated clear of the Mat Slab. Once Thermal Monitoring activities are complete, this non-corrosive rod and cable will be cut flush with slab. Reference attached brochure and SCCI sketch.

Is this method acceptable?

T-0457 **BGP - Mat slab changes per Field Order 11 (Future ASI 102)** **Closed** **03/25/2013** **04/04/2013** **04/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference RFI: T-0415
Reference Field Order No. 11 (Future ASI 102)

Field Order No.11 (Future ASI 102) is still in the design stage, and without the Contract Drawings incorporating the field orders SCCI cannot plan the work. More specifically, are there any changes to the foundation (Mat slab) resulting from Field Order 11 (Future ASI 102)?

For example:
If there are changed/added drainage pits in the SCCI's Area 3 (Mat slab pour # S103; GL A thru J, and 1 thru 3.5), geothermal work cannot begin until such changes are incorporated.

Please confirm that Field Order No.11 (Future ASI 102), or any other forthcoming Field Order has no changes in the Mat slab drainage system (drainage pits, thickened sections, etc.), that would impact the subgrade work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Regarding ASI 102
For the Mat slab GL A thru J and 1 thru 3.5 drainage pits are not expected change, with the exception of the small sump pit in the elevator pit GL 1.4 to 2, E.6 which was shown on the attachments responding to RFI T-0415 BGP. Within the mat slab (not affecting slab thickenings) floor drains and floor sinks have been relocated at the Fire Pump and Domestic Booster and Irrigation Pump Rooms and a floor drain will be added at the electrical room located GL 1.4 to 2, B to C.

T-0458 **BGP - Concourse Slab CJ Layout** **Closed** **03/26/2013** **04/05/2013** **04/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification: 03 30 20
Reference Drawings: CJ-05 and CJ-22

In order to meet the Joints in Concrete specifications (03 30 20-3.2), SCCI's revision of Construction Joint (CJ) Layout Submittal requires the CJ between concourse slabs D116 and D117 (see atttached reference drawing CJ-22) to be 2'-10" outside of the required center third of the span (reference 03 30 20- 3.2.B.1). Please advise if this is acceptable.

If the above is not acceptable, then SCCI proposes to move the CJ line (between D116 and D117) 2'-10" to the East. Since mat slab S108 (see attached reference drawing CJ-05) is currently 120'-0" wide, it will be increased to 122 '-1 0" wide. This would be wider than the maximum width of 120' -0" as specified in 03 30 20-3.2.A.3. Please advise if this alternative is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The second option (that will result in a larger mat pour) is acceptable.

T-0459 **BGP - Waterproofing and CJ Concourse Slab Layout Conflict** **Closed** **03/27/2013** **04/06/2013** **04/01/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 07 12 10
Reference Drawings: A1-2203 and S1-3201

Please reference Al-2203 and Sl-3201 of the Contract Plans and the attached drawings. The current elevation at the bottom of the 2nd level bracing lookouts is at approximately -5.13, WEST of Grid 9 (see concourse slab drawing). The proposed top of concourse slab elevation is to be -5.42, WEST of Grid 9. Per the WPM-1 waterproofing system, the minimum overall tie-in dimension needed for the succeeding lift is approximately 1 '-11" (see attached waterproofing drawing).

The current elevation at the bottom of the 2nd level bracing lookouts is at approximately -6.15, EAST of Grid 9 (see concourse slab drawing). The proposed top of concourse slab elevation CJ is to be -7.67, EAST of Grid 9. Per the WPM-1 waterproofing system, the minimum

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a contractor coordination issue. CM/GC to coordinate this work between their sub-contractors and show the proposed solution in the coordinated shop drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

overall tie-in dimension needed for the succeeding lift is approximately 1 '-11" (see attached waterproofing drawing).

In both locations, the minimum required dimension (1 '-11") to tie-in to the next lift of waterproofing can not be reached with the current location of the 2nd level bracing lookouts and the proposed concourse slab elevations. SCCI is restricted in location for the CJ due to the absolute concourse slab location and elevation.

Furthermore, a similar conflict exists in the 1st foundation wall lift and the 3rd level of bracing lookouts (see 1st wall lift drawing). With SCCI's current location of the CJ, there is virtually no room to allow for the waterproofing overlap to occur. SCCI fully understands its freedom to manipulate the location of the CJ's by lowering it approximately 2'. This will potentially change BBII's rebracing plans.

Please advise.

T-0460 **BGP - Waterproofing and CJ at Mat Slab Conflict** **Closed** **03/27/2013** **04/06/2013** **04/01/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: S1-3201

Please reference S1-3201 of the Contract Plans, RFI #T-0459, and the attached drawings. The current elevation at the bottom of the 4th level bracing lookouts is at approximately -31.56 (see mat slab drawing). The proposed top of mat slab elevation CJ is to be -32.37. Per the WPM-1 waterproofing system, the minimum overall tie-in overlap dimension needed for the succeeding lift is approximately 1'-11" (see attached waterproofing drawing).

The minimum required dimension (1'-11") to tie-in to the next lift of waterproofing can not be reached with the current location of the 4th level bracing lookouts and the proposed mat slab chamfer elevations. SCCI is restricted

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a contractor coordination issue. CM/GC to coordinate this work between their sub-contractors and show the proposed solution in the coordinated shop drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

in location for the CJ due to the absolute mat slab with chamfer location and elevation.

Please advise.

T-0461 **BSE - Cross - Lot Rebracing** **Closed** **03/27/2013** **04/06/2013** **04/03/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Lynn Kowallis

REQUEST:

Ref: S1-3201 and Field Order 10R2 -S1-3201

Base contract detail A/S1-3201 gave the contractor the option to utilize an internal concrete waler or an external steel waler for rebracing. The FO #10R2 version of detail 1/S1-3201 appears to have eliminated one of the two original rebracing options, leaving only the external steel waler option. Please confirm it was the designer's intent not to use an internal concrete waler for rebracing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor may use either a steel waler or internal concrete waler as in base contract detail A/S1-3201 (It was the design team's understanding from previous communications with the contractor that a steel waler would be used, thus the FO #10R2 version of detail 1/S1-3201 only graphically shows the steel waler option). FO #10R2 shall not be used to prohibit the contractor from designing and installing all necessary aspects of a rebracing system utilizing the permanent structural concrete, as indicated in base contract detail A/S1-3201.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0462	**BGP - Grounding Wire Penetrations in Mud & Protection Slab**	**Closed**	**03/28/2013**	**04/07/2013**	**04/10/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: 5/A1-8710 and Submittal Package TG0600-023.1 sheet 5.07, Specification Section 26 05 27

The contract plans and specifications call for the grounding wire to be bare copper. At the locations in which this grounding wire penetrates the mud & protection slab, the waterproofing supplier (Laurenco) requires the ground wire penetration to be solid metal or a rod. Laurenco has stated that if the electrical grounding penetration through the slab is wire as shown in the plans and specifications, the waterproofing system will leak.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For each of the grounding electrode conductors that penetrate the waterproof membrane, in order to provide a smooth impenetrable surface, splice a solid copper 4/0 grounding conductor per the attached detail sketch ESK-20 using Erico Cadweld mold #PTC-2P2L or equal. Refer to the attached revised waterproofing detail 5/A1-8710 for waterproofing of these spliced conductors.

Jeff Thiel 4/10/2013 Pending TJPA approval, a CR for this work is forthcoming.

T-0463	**BSE - Micropiles W400 & 417 Relocation**	**Closed**	**03/28/2013**	**03/29/2013**	**04/01/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference Specification: 31 63 33

Micropiles W400 and W417 cannot be installed as laid out due to an overhead obstruction (Geotechnical Instrumentation Pipes).

BBII proposes moving W400 South 5' and W417 South 3' to provide adequate clearance. The proposed locations for Micropile W400 and W417 will be within the geothermal area; however, the proposed locations do not appear to impact geothermal piping.

See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropiles W400 and W417 as proposed.

T-0464	**BGP - Clarification of Curing and Thermal Protection Methods**	**Closed**	**03/28/2013**	**04/07/2013**	**04/09/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Ref: Specification Section 033020.2.11.D, and 033020.3.7.A.c
Ref: Submittal TG0600-201.1

Reference Mass Concrete Plan prepared by CTL Group, Submittal Package TG0600-201.1, item 033000-011.1, page 10 - Curing. This paragraph state " ... slab placement will be cured in a method that
does not artificially excessively decrease the surface temperature of the concrete placement. This means that continuous wetting of the concrete should he avoided."

Reference specification section 033020.3.11.D. This paragraph states "Thermal Blankets are required to insure minimal thermal cracking."

Reference specification section 033020.3.7.A.C. This paragraph calls for "Moist curing of the Mat Slab by means of continuously covering the slab with water."

Reference attached letter " Wet Curing Mat Slab", author Bob Foley, CEMEX QC Manager Bay Area.

SCCI intends to cure the Mat slab per recommendations of CLT Group Mass Concrete Plan. Due to the high risk of thermal cracking, SCCI intends to utilize impermeable insulated curing blankets and not cover the slab with water.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed method of curing is not acceptable as it does not meet the specifications for moist curing. The intent is to keep the surface continuously wet to ensure minimal cracking and with the use of thermal blankets to minimize temperature differential.

T-0464.1	BGP - Mat Slab Curing Techniques	Closed	04/26/2013	05/06/2013	05/08/2013	Potentially ☐

From: Webcor Construction LP Robert Kjome
Co-Author: Shimmick Construction Company, Inc Ben Gordon
To: Turner Construction Compan Gary Krutsch
Answered By: Webcor Construction LP Robert Kjome

REQUEST:

Reference Specification: 03 30 20

Please reference TG06.0 Contract Specifications 03 30 20.3.7.5.b.3 and Project Meeting with Thornton Tomasetti (SER), held Thursday, April 25.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed method of moist curing for the mat slab is acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SCCI intends to Moist cure the Mat Foundation Slab using the above referenced method found in the contract specifications and discussed in the above mentioned Project meeting.

Please confirm this method is acceptable.

T-0465 **BGP - Relocation of Geothermal Risers Due to Leaking CDSM Wall** **Closed** **03/28/2013** **04/07/2013** **04/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference photo: Attached

As seen in the picture attached, water is leaking through the surface of not only the CDSM panel that the geothermal riser is laid out on, but the various adjacent CDSM panels as well.

Please confirm that SCCI can move the Field 1 risers location between Piles 35 & 36 and the Field 2 risers location between Piles 38 & 39. Both of these new locations appear to be leaking less than the original riser locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Field 1 Risers should be located between east of soldier Pile 36 (between 36 and 37) as indicated in RFI T-0437 BGP. It is acceptable to locate Field 2 risers between 38 and 39.

T-0466 **BGP - Ground Rod for SFPUC** **Closed** **03/29/2013** **04/08/2013** **04/10/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Joanne Filipas

REQUEST:

In follow up to the 3/28/2013 OAC, PCP informed us that the SF PUC requires a ground rod to be installed. Please provide all necessary information including but not limited to rod type, length, and location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Add new ground rods and grounding electrode conductors for SFPUC utility requirements per the attached drawings. This grounding system shall not connect to the other building grounding systems except for the soldier pile connections. All other related details shall apply. Coordinate grounding conductors to rise in the foundation wall for extension into the Lower Concourse slab.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Jeff Thiel 4/10/2013 Pending TJPA approval, a CR for this work is forthcoming.

T-0466.1 **BGP - Ground Rod for SFPUC** **Closed** **04/11/2013** **04/21/2013** **04/23/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Ref: RFI T-0466, RFI T-0442

SCCI is in receipt of the response to RFI T -0466 concerning the addition of SFPUC grounding rods/grids. In order to price this change SCCI and its electrical subcontractor need the following information:

On Drawing SKE-021, Note 8, please provide a location on where to terminate each of the four 4/0 cables at the lower concourse slab. A revised SKE-024 drawing showing the exact stub up locations and dimensions is needed to accurately price and construct this change.

On Drawing SKE-022, Note 3, please again advise where to terminate the four 4/0 cables at the lower concourse slab. A revised SKE-024 drawing showing the exact stub up locations and dimensions is needed to accurately price and construct this change.

Please confirm that the details from the RFI T -442 response will apply to these penetrations.

Please confirm that there only two areas (detailed on SKE-021 & SKE-022) that will require the additional SFPUC grounding.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Please find the attached drawings to clarify the ground rod locations. The ground rods are noted to be approximately ten feet on center. Coordinate the specific placement of the rods and GEC to avoid the geothermal piping. We have included Lower Concourse drawings to indicate the grounding electrode conductors that will route into the Lower Concourse slab. Exact dimensioning of these conductors in the foundation wall and slab are not required, Contractor to coordinate exact locations with underground piping in this area. The GEC will be extended to bond to a ground grid at the four corners of the new Electrical Rooms B1289 and B1441. Additional slab details for the mesh and GEC bonding will be provided in an upcoming drawing issue.

2. Yes, the details from RFI T-442 will apply to these and all grounding conductor penetrations of the waterproof membrane. See SKE-025 for the connection detail referenced on sheet E1-6006, detail 2.

3. Yes, the two locations are the only known new SFPUC grounding locations. Please note that the ten foot ground rod separation shown on SKE-021R1 at the transformer vaults has been increased.

T-0466.2 **BGP - Requesting Detail 2 on drawing E1-6006** **Closed** **04/19/2013** **04/29/2013** **04/23/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: RFI T-0466, Drawing E1-6006

Reference is made to RFI T -0466 and the attached sketches. Note I on SKE-022, Note A on SKE-023 and the first note below (Top of Slab -35'-8") references a detail on Contract Drawing E1-6006 for the added SFPUC Ground Rods. The current drawing E1-6006 does not have the noted detail. SCCI requests an updated E1-6006 drawing with the new detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SKE-025 issued with the RFI response indicates the specific referenced detail 2 on Sheet E1-6006. See attached for a duplicate copy.

T-0467 **BGP - Lower Concourse Conflicts** **Closed** **03/28/2013** **03/28/2013** **04/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Drawings: SH-5002, SH-2007, SH-2008, SH-3001

SCCI is in discovery that the W21x101 and W14x30 support beams and lookouts at the shoring level B are encroaching into the lower concourse slab between GL 1 and 9.5. TOC for the concourse slab is at EL. -5.42' (GL 1 thru 9.5); Bottom of W21x101 support beams and W14x30 lookouts are at EL. -6.25' and -5.67' respectively.

Please confirm that these will be removed prior to construction of the lower concourse level. If these struts supports are to remain throughout construction of the lower concourse please provide detailed drawings showing incorporation (or blockout) of these W21x101 support beams and W14x30 lookouts into the lower concourse slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a contractor coordination issue. CM/GC to coordinate this work between their sub-contractors and show the proposed solution in the coordinated shop drawings.

T-0468 **BGP - Geothermal Pipe Riser in CDSM Wall Excavation Specification** **Closed** **03/29/2013** **04/08/2013** **04/08/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification: 23 57 34, 31 23 34

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable west of gridline 7.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per discussions with the designer (ARUP), the CDSM wall will continue to move until the mat slab has been placed. With the geothermal pipe riser being installed much ahead of the mat slab, there is a good chance that the riser chase pour back will be jeopordized by the wall movement. Per specification 31 23 34, 3.2, B, the geothermal riser pipe chase cannot remain open for longer than 10 calendar days. Is it acceptable to extend this duration to account for the wall movement until the mat slab is poured?

Please advise.

T-0469 **BGP - Embed Nail Holes** **Closed** **04/01/2013** **04/11/2013** **04/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Detail 3/S1-3010, Detail 2,3,6/S1-3205, Detail 1/S1-3411, Detail 9,11/S1-7600, Detail 8,12/S1-7602

Please reference attached drawings of typical steel embeds, not all embed drawings are attached. SCCI requests to drill 1/4" nail holes in the embedded steel angles, plates, pit frames and bearing assemblies. The holes shall provide a means to secure embeds to the formwork and prevent movement during placement of concrete. Nail holes shall be drilled prior to galvanization and shown on shop drawings.
Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed nail holes are acceptable provided that holes avoid studs by minimum of AISC bolt hole clear spacing requirements.

Submit holes in shop drawings for review.

T-0470 **BGP - Concourse Slab Trestle Pile Block Out** **Closed** **04/02/2013** **04/12/2013** **04/11/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Detail 4, 7/S1-3009, S1-3500, S1-3501, S1-3502

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Since a block-out for a trestle pile is a temporary condition, it is the contractor's responsibility for this

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please reference attached Contract Drawings S1-3009, S1-3500, S1-3501 and S1-3502. Details 4 and 7 on S1-3009 depict the typical mat foundation reinforcement and trestle pile block outs. SCCI is unable to locate a typical concourse slab reinforcement and trestle pile block out detail. The slab detail drawings, S1-3500 to S1-3502, do not contain details for the trestle pile block outs. Please provide trestle pile reinforcement and block detail for the concourse slab.

means and methods issue.

Note that General Note GR-9 on S-0005 offers some additional information on this topic.

T-0470.1 **BGP - Concourse Penetrations Discrepancies** **Closed** **07/16/2013** **07/16/2013** **07/29/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference attached sketch and RFI T-0470.

Note GR-9 on S-0005 raises a non constructability issue with the concourse slab penetration blockout. If the GR-9 is followed the minimal clear cover over couplers on the lower concourse slab will not conform to the specifications. Please provide rebar details for the concourse slab penetrations that conform to the specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached SKS-0280 for a block-out detail for the typical Lower Concourse slab. Contractor to verify top and bottom bars with slab schedule as the RFI sketch reflects incorrect labels. Slab will shall be supported during temporary condition until block-out is filled in.

T-0471 **BGP - Galvanizing Testing** **Closed** **04/02/2013** **04/12/2013** **04/05/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Specification Section 05 05 15 3.6 A

Section 3.6 A of 05 05 15 -Hot Dip Galvanizing calls for "the contractor's testing laboratory shall perform inspection and testing of zinc coatings under the guidelines outlined in the American Galvanizer's Association (AGA)." Per the hot dip galvanizing pre-installation meeting, SCCI plans to use AZZ Galvanizing Services and their independent testing agency for shop testing and inspection and to fulfill all requirements described in 05 05 15-3.6 -Testing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor shall determine if the galvanizing service company and contractor's testing agency are appropriate. It is not required in the specification to obtain approval by a TJPA Representative of the galvanizing service company and contractor's testing agency.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Personnel qualifications are available upon request.

Please confirm this is acceptable.

T-0472 **BGP - Future Train Platform Wall Conflict with Trestle Pile Opening** **Closed** **04/02/2013** **04/16/2013** **04/15/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Dwg: S1-2054, S1-2055, 1/S1-3205

Dwg sheets S1-2054 and S1-2055 depict the future walls for the train platform which per detail 1/S1-3205 receive #7 dowels E.F. at 8" O.C. with a formsaver coupler positioned at the top of the mat slab. When referencing S1-2054 and S1-2055 it is noted that in 14 locations the openings for the trestle pile are shown directly on top of this future wall thus conflicting with the required dowels. Please provide a coupler detail at these blockouts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The train platform dowels that coincide with trestle piles identified in the RFI shall be eliminated.

T-0473 **BGP - Modifications to Geothermal Layout** **Closed** **04/02/2013** **04/12/2013** **04/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Robert Kjome

REQUEST:

Reference: M-0006

Per sheet Note 3 on M-0006, the center to center distance of loops can be adjusted where conflicts occur. In an effort to relocate geothermal piping as needed to avoid structural conflicts without multiple submissions of RFI's, please provide minimum distance allowed between loops.

As built of the installed geothermal piping will be provided upon completion of the system.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The minimum distance between geothermal pipe loops is 4'-0".

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0474	BGP - Micropile Penetration Detail at Sump Pits	Closed	04/02/2013	04/02/2013	04/04/2013	Potentially	

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Robert Kjome

REQUEST:

Refrence Specification: 31 63 33
Reference Drawing: A1-8711
Reference Photos: Attached

See attached photos of micropiles W028, W026, and W043 located in sump pits on an angle. Sheet 2/A1-8711 shows a micropile penetration detail on a horizontal surface. Please provide a micropile penetration detail for micropiles located in a sump pit on an angle.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Submit a shop drawing based on the waterproofing manufacturer's recommendations for this condition.

T-0475	BGP - Mat Slab Drainage Sloping	Closed	04/03/2013	04/17/2013	04/04/2013	Potentially	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Spec: 03 30 20.3.6.B.1.b

Contract specification section 03 30 20.3.6.B.1.b, states "Slope surfaces uniformly to drains where required."

However, the contract plans for the below grade package (TG06.0), does not show drainage slope for the Mat Slab. SCCI intends to uniformly place top of Mat Slab at -35' - 8" as shown on contract drawings. If sloping of the Mat Slab is required, please provide drainage plan for top of Mat Slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We confirm that there are no slopes to drain on the Mat Slab. The top of slab is uniformly -35'-8".

T-0476	BSE - Zone 4 Waler Connection Criteria	Closed	04/03/2013	04/13/2013	04/05/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Danny Walsh

REQUEST:

BBII has received COM1902 directing BBII to re-design the east end shoring utilizing similar waler connections provided in the attached sketches.

Prior to commencing re-design, BBII requests the following information from the Shoring wall EOR so our Bracing EOR can properly evaluate the interaction

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Regarding permissibility, see Note 11 on Sheet GT-1111.

Regarding the CDSM wall stiffness, see the response to RFI T-0345.

Regarding the CDSM wall allowable friction, see the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

between the Bracing system and wall.

Will it be permissible to shed the bracing loads from the transverse end wall (line 35) into the longitudinal CDSM wall (A&J Lines)? If this is acceptable please indicate if there are any limitations, restrictions, or design assumptions regarding the amount of load that can be shed over a given length of wall.

response to RFI T-0427.

To evaluate horizontal stress, see the guidance provided on Sheet GT-1110

T-0477 **BSE - Multiple Micropile Relocation (Below Grade Obstruction)** **Closed** **04/03/2013** **04/13/2013** **04/04/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Ref: Submittal TG0300-622.4

While installing Micropile W454 as laid out in the approved submittal, BBII encountered a concrete obstruction 8' below grade and was unable to continue drilling at that location. Even though the micropile layout was approved in submittal TG0300-622.4, BBII suspects the drill rig encountered the CDSM Prototype wall as approximately shown in the attached drawing. BBII suggests relocating the micropiles as shown in the attached drawing to avoid the obstruction. The proposed locations for the micropile relocations will be within the geothermal area; however, the proposed locations do not appear to impact geothermal piping.
See attached sketch.
Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to relocating micropiles W452, W454, W473, W475, W487, W488, and W500 as proposed.

T-0478 **BGP - Shear Reinforcement Clear Cover at Pits** **Closed** **04/03/2013** **04/17/2013** **04/10/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Dwg. 2/S1-3005, 3/S1-3008, and S1-2063

Sheet S1-3005/Detail 2 specifies the typical top clear

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Top clear cover for headed shear reinforcement that is located within a pit shall be 2.25", such that total overall length of the headed shear reinforcement shall

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

cover for the headed shear reinforcement to be 0.75" and for overall length of the headed shear reinforcement to be 57" long. It is not clear if the same clear cover of 0.75" applies to headed shear reinforcement that is within a pit as shown in Sheet S1-3008/Detail 3. Note that typical rebar around the pits are called out to be 3" as shown on sheet SI -2063.

Please confirm top clear cover for headed shear reinforcement that is within a pit.

be 55.5" long at these locations.

T-0479 **BGP - Trestle/Pin pile in MAT Depressions** **Closed** **04/03/2013** **04/17/2013** **04/17/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Dwg. S1-2022, S1-2027, S1-3004, S1-3006

Please reference Sheets S1-2022, S1-2027, S1-3004, and S1-3006 of the Contract Plans. The trestle pile at Gridline D.4 between 4 and 5 is located in the sloped section of the mat slab depression (see highlighted S1-2022). The mat slab depression section plans (S1-3006) do not incorporate this type of sloped pipe penetration. Furthermore, the pin pile between Gridline F.7 and G, just east of 34 is located in the sloped section of the mat slab depression (see highlighted S1-2027). The mat slab depression section plans (S1-3004) do not incorporate this type of sloped pipe penetration. Also, Sheet S1-3003 depicts all pipe penetrations on a horizontal surface only. Please provide a trestle/pin pile penetration detail located on an angle in a mat slab depression incorporating a revised waterproofing detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For trestle piles located at slab depression edge of slope or on face of slope, the flat mud slab has to be lowered to provide 18" clear horizontal to allow waterproof membrane transition. The sides of the depression for the sleeve should be sloped at 45 deg. The sleeves will need to be made longer to suit these situations. Refer to attached SKA 2676 and 2677.

Jeff Thiel 4/17/2013 Pending TJPA approval, a CR for this work is forthcoming.

T-0479.1 **BGP - Trestle and Pin Pile in MAT Depression Clarification** **Closed** **05/28/2013** **06/07/2013** **06/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Response to RFI T-0479 provides SKA-2676 and SKA-2677 which apply to two trestle piles in conflict with sloped portions of sump pits. BBII has identified several other pit locations which appear to have trestle piles, pin piles, or bridge piers located so that there is not 18" clear horizontal for waterproofing. Please clarify if the following slab penetration locations require the 18" clear horiontal for waterproofing. If so, please confirm that the details issued in RFI T-0479 can be used for the following locations:

1.) First St. Bridge Pier #5 at pit between Gridlines 17/18 at Gridline H
2.) Trestle Piles #53, #54, and #55 at pit between Gridlines 22.5/23.5 and D/F
3.) Fremont St. Bridge Pier #8 at pit between Gridlines 26/27 at E
4.) Trestle Pile #74 at pit between Gridlines 30/30.5 and D/E.
5.) Trestle Pile #80 at pit between Gridlines 32.5/33 and D/E
6.) Beale St. Bridge Piers #3 and #8 at pit between Gridlines 34/35 at Gridline E
7.) Pin Pile # 6 between Gridlines 4/5
8.) Pin Pile #14 between Gridlines 34/35 and F.7/H

The Design Team does not object to the contractor implementing the solution provided on RFI T-0479 at the locations mentioned in RFI T-0479.1 as a means of attaining the required 18" clear horizontal waterproofing surface. Note for implementation of this detail at pin pile locations, the contractor shall use 24" as the outside diameter of the pin pile sleeve, which is the size from the reviewed sleeve submittal.

T-0479.2 **BGP - Trestle and Pin Pile in MAT Depression Clarification** **Closed** **07/18/2013** **07/28/2013** **07/24/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI T-0479 & T-0479.1

Grace requires that there be a minimum 8" clear horizontal to allow for the waterproofing membrane transition.

For trestle piles and pin piles located at slab depressions at the edge of the slope or on the face off the slope, please confirm that the flat mud slab can be lowered to provide 8" clear horizontal to allow waterproof membrane transition in lieu of the 18" described in RFI T-0479 and T-0479.1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI is for a substituted system that is not the system designed by the Architect, so the Architect cannot comment on design intent or other aspects of the substituted system. Per specification section 01 16 30 article 1.4/B and other associated specification sections the Contractor is to prepare all necessary documentation to support the contractor's substitution proposal which would include direction on the item noted in this RFI.

The Contractor should have the design professional

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

responsible for the substituted waterproofing design: (1) immediately prepare necessary design documentation for the substituted system including the impacts on adjacent trades as required by specification section 01 16 30 article 1.4/B.5, and stamp and certify that design to the Owner and the Architect; and (2) respond to Contractor submittals and manufacturer questions about the substituted system (with copies to the Owner and the Architect). Until that design professional's documentation, certification, and response process is in place, the Contractor should confirm all waterproofing system questions and details with the waterproofing manufacturer (with copies to the Owner and the Architect).

T-0480 **BGP - Future Train Platform Wall Dimension Conflict** **Closed** **04/03/2013** **04/17/2013** **04/16/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Dwg. S1-2054, S1-2055

Drawing S1-2054, at Grid line E/13 calls out Future Train Platform Room Walls to be 1'- 2" Typ, UNO. Drawing S1-2055, at Grid line C/22 calls out Future Train Platform RM Walls to be 1'- 0" Typ. UNO. Please clarify the proper dimension of the Future Train Platform RM Walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The note for future train platform room wall thickness apply per zone sheet. Therefore the future train platform walls are confirmed to be 1'-2" typ UON on S1-2054 and confirmed to be 1'-0" typ UON on sheet S1-2055. Note that for S1-2055, there are 2 future train platform rooms - one at gridline C between 21 and 22 and the other at gridline E west of 19.9.

T-0481 **BGP - Concourse Slab Penetration Sleeves** **Closed** **04/08/2013** **04/18/2013** **04/12/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref Dwg. A1-2842-2851

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger 4/11/2013 It is not acceptable to post-core (or post-drill) penetration into the lower

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In SCCI's experience unanticipated modifications and adjustments to the plumbing system are inevitable. Because of this SCCI requests not installing vertical block out sleeves in the concourse level for plumbing prior to slab placement. SCCI shall core penetrations after the slab is placed. The slab shall be scanned for rebar prior to coring to avoid unnecessary rebar strikes. This will allow for any unforeseen modifications or adjustments and ensure there are no unnecessary or extra penetrations in the concourse slab. Please advise if this is acceptable.

concourse slab, except where specifically approved by the Structural Engineer of Record. Contractor shall coordinate penetrations with other trades and embedded assemblies in concrete as required by specifications. Post-installed modifications/adjustments shall be submitted for review.

T-0482 **BGP - Partition Wall Pier Height** **Closed** **04/05/2013** **04/15/2013** **04/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: S1-9050

Please reference attached sheets S1-9050, A1-9216 and A1-9217 regarding partition wall piers. Detail 9 on S1-9050 shows an h max of 24'8" for wall piers. Detail A on sheet A1-9216, and detail B on sheet A1-9217 appear to be showing piers at a height of 27'2" and 28'11" respectfully. SCCI is requesting clarification with pier height regarding reinforcement as well as opening width allowed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For inquired piers with max height of 28'-11" and max opening width of 6'-5", a 2'-0" min wide X 1'4" min thick pier shall have #9@8"OC EF vertical bars. Remaining information per detail 9/S1-9050.

T-0483 **BGP - Request for reinstatement of a smaller high congestion mock-up.** **Closed** **04/05/2013** **04/15/2013** **04/17/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Ref: S1-3202, S1-2204, S1-3201, S1-3208

Via CCO #0035 the TJPA unilaterally deleted Bid Item #14 the high congestion mock-up and disposal. WOJV maintains that the inclusion of a mock-up for areas of high congestion (Exhibit-A) is not only good construction practice but will mitigate if not eviscerate the unquantifiable liability. WOJV recommends, at a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID per conversations between Kirk Nielson and Gary Krutsch on 4/15/2013. This RFI is considered void. Refer to CR T-063.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

minimum, reinstating a high congestion mock-up configured as follows:

1. The area to mock-up is indicated on marked up sheet S1-3202 (Exhibit-B).
2. The mock-up is representative of the location marked up on sheet S1-2204 (Exhibit-C) and configured as indicated on marked up sheet S1-3201 (Exhibit-D).
3. The mock-up is dimensioned as indicated on marked up sheet S1-3208 (Exhibit-E).

Please issue drawings for a smaller high congestion mock-up that the TJPA deems appropriate, if not indicated on the attached sheets.

T-0484 **BGP - Water Welding Test** **Closed** **04/05/2013** **04/15/2013** **04/18/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome

To: Turner Construction Compan Gary Krutsch

Answered By: Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification:05 50 10- 2.5.C.2

Per the discussions held at the Metal Fabrications Preparatory DFOW meeting, SCCI is requesting a variance from Spec Section 05 50 10 - 2.5.C.2. This Spec. is feasible in a shop environment prior to galvanization and an effective means to dry and remove water upon completion of testing. These sleeves will be continuously welded in the field both before and after the horizontal waterproofing is installed (depending on the type of sleeve), therefore making it very difficult to seal and handle the water upon completion of the test. Discussions were held regarding leaving the water between the sleeve and pile and evaporating over time. SCCI sees this as a concern due to the backside of the weld and the heat-affected zone will not be galvanized and will potentially become a point of corrosion. SCCI requests 100% visual inspection on both the root and cover passes in lieu of filling the sleeve gap with water. Is this request and variance acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sleeve joints are to be water tight. Water testing of welds as required in the specification is to be executed. Please submit a test procedure description.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0485	BGP - SCCI Issued Drawings	Closed	04/08/2013	04/18/2013	05/02/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference spreadsheet: See attached.

Please reference attached spreadsheet of SCCI missing contract drawings. Based on drawing index sheets G-0000 - G-0006 issued F.O. 15 there are 33 sheets that have a more current revision than what we have been issue. Please issue the updated drawings referenced.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference CR T-068 for the current revisions of requested drawings.

Also, note that drawings S1-3360 through S1-3363 do not exist; drawings S1-3660 through S1-3663 have been provided.

T-0486	BGP - Extended Time for Concrete Delivery	Closed	04/08/2013	04/18/2013	04/16/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 03 30 20

Please reference 03 30 20.3.3.0, which states "Discharge of the concrete shall be completed within 1 1/2 hrs, or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing waler to the cement and aggregates or the introduction of the cement to the aggregates."

Per ASTM C 94, these limitations are permitted to be waived by the purchaser if the concrete is of such slump or slump flow after the 1 1/2 hr time or 300-revolutionlimit has been reached that it can be placed, without the addition of water, to the batch. Based on the quality of the mixes; the retarding effects of admixtures and SCMs, and the project's mild climate; CEMEX does not believe that placing concrete after 90 minutes negatively affects the quality of the concrete. SCCI and CEMEX requests an extension of delivery time as outlined per the attached letter.

Please confirm the attached parameters are acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ASTM C94 states "discharge of concrete shall be completed within 1 1/2 hour or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing water to the cement and aggregates or the introduction of the cement to the aggregates."

CEMEX's statement in this RFI "CEMEX does not believe that placing concrete after 90 minutes negatively affects the quality of the concrete" does not provide sufficient support data to address the concern of the concrete initial set after the specified time limit and revolutions. In order to justify extending the mix time/revolutions specified, CEMEX shall run trial batches to proposed extended delivery time and perform necessary tests (initial set time, slump, compression, etc) to verify the quality of the concrete will not be negatively affected.

T-0486.1	BGP - Extened Time for Concrete Delivery - Mat Slab	Closed	05/06/2013	05/16/2013	05/12/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Specification: 033020

Pursuant TJPA's response to RFI T-0486 please reference attached letter from SCCI's concrete supplier Cemex. Cemex has performed the set time test to evaluate the time at which at which the onset of hydration occurs for mixes 1556034 and 1558218. For the two mixes referenced herein, is it acceptable to extend the concrete delivery times to 2 hours?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Extending the concrete delivery to 2 hours is acceptable as proposed in RFI T-0486 provided that the tested mixes match approved mix designs.

It is not clear that the tested mixes were the approved mix designs for the mat and foundation wall (we assume the RFI means 3'-0" exterior foundation wall and not any other wall or shearwall and our response only applies to this item) as the mix numbers and/or the mix descriptions do not match any approved mix design.

T-0486.2 **BGP - Extended Time for Concrete Delivery - Mat Slab** **Closed** **05/28/2013** **06/07/2013** **06/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference RFI: T-0486

Pursuant TJPA's response to RFI T-0486 please reference attached letter from SCCI's concrete supplier Cemex.

Cemex has performed the set time test to evaluate the time at which at which the onset of hydration occurs for mix #1557204 (Mat Slab Mix).

For the mix referenced herein, is it acceptable to extend the concrete delivery times to 2 hours?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to extend the concrete delivery to 2 hours as proposed in RFI T-0486 for mat slab mix #1557204.

T-0487 **BGP - Structural Pier Reinforcement Detail** **Closed** **04/08/2013** **04/18/2013** **04/22/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: A1-9215, 9/S1-9050

Please confirm that the vertical rebar size and spacing of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

#7@ 8" OC EF (as shown on Detail 9 of S1-9050) applies to the structural pier between GL 4 and 5 which is dimensioned as 2'-0" x 2'-0"(A1-9215).

T-0488 **BGP - Handling HVFA Test Cylinders- Mat Slab** **Closed** **04/08/2013** **04/18/2013** **04/17/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Specification Section 03 30 20 1.7 F 3 j 2
ASTM C 31

ASTM C 31 Identifies that concrete cylinders should not be transported until at least 8 hours after final set. Per ASTM C 31, Allowable field curing is 48 hours maximum. Typically test cylinders are transported within 24 to 48 hours after casting. Some of the mix designs approved for this project include High volume of Flyash (HVFA) and high dose of Shrinkage Reducing Admixture (SRA). This combination provides a concrete mix with retarded set and slow strength gain. In the interest of providing reliable test results, SCCI and CEMEX requests that transporting of cylinders representative of concrete mixes that include 25% flyash and/or addition of shrinkage reducing admixture be delayed until 3 to 5 days after casting. Protection and storage of cylinders in the field shall be in direct accordance with requirements outlined in section 10 of ASTM C 31. Is this extension of field curing duration acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT does not take exception to the delay of handling HVFA test cylinders as proposed in RFI 0488.

T-0489 **BGP - Proposed solutions to trestle pile / concourse level beams (not depicted in t** **Closed** **04/09/2013** **04/19/2013** **04/18/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Ref: S1-2202

Please reference the attached marked up sheet S1-2202 which depicts:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed solutions to move Lower Concourse permanent structure to avoid trestle conflicts are not acceptable. Blockouts for temporary conditions are the responsibility of the Contractor. Refer to general

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1. Trestle pile #3 conflicting with the line D.4 B77 (36"w x 46"h) beam between lines 3 & 4. In order to avoid the proximity conflict may we:
   a. Relocate the B77 beam North in order to clear the trestle pile?
   b. Skew the B77 beam so that it runs in between cols. 3/D.4 and 4/D?
2. Trestle pile #6 conflicting with the line E.6 B45 (30"w x 44"h) beam between lines 4 & 5. In order to avoid the proximity conflict may we relocate the B45 South, thereby cantilevering the slab, in order to clear the trestle pile?

Please advise.

note GR-9 on S-0005 for additional information regarding blockout guidance, as well as note GR-4 on S-0005.

T-0490 **BSE - Multiple Micropile Relocation (Trestle Overhead Obstruction)** **Closed** **04/09/2013** **04/19/2013** **04/16/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

Ref: TG0300-622.4

Multiple micropiles underneath the trestle cannot be installed as laid out due to an overhead strut support obstruction. BBII suggests relocating these micropiles south to provide 4' of clearance from the overhead strut support to each micropile. The proposed micropile locations will be within the geothermal area; however, they do not appear to impact geothermal piping. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to relocating these micropiles as proposed.

T-0492 **BGP - Backfill of Geothermal Pipe** **Closed** **04/11/2013** **04/21/2013** **04/23/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Per discussions following the Turner BSE Progress

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to backfill horizontal loop trenches

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Meeting with the geothermal designer, it is acceptable to backfill and compact the continuous loop after having been installed in the trench. This backfill is contingent upon the ends of the loop being left exposed for the loop welds to the manifold. Backfill over these welded joints and manifold will not be completed until the 100 psi hydro test is complete.

Please confirm this is acceptable.

after pneumatic test of individual horizontal loops.

T-0493 **BGP - Geothermal Loop Spacing Tolerances** **Closed** **04/11/2013** **04/21/2013** **04/16/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Ref: RFI T-0473

Per the Engineer response to a WOJV RFI, the geothermal loop spacing cannot exceed 4'. Per discussions after the progress meeting today (4/10/ 13), the 5th and 6th loops in field 1 are acceptable with a spacing of 20". This exception is for this location only and all further exceptions are to be submitted under a seperate RFI at the time of the layout.
Please confirm that this 20" spacing for Field 1 loops 5 & 6 is acceptable at 20".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, 20" Separation between Field 1, Loop 5 and Loop 6, is acceptable.

The first sentence of this RFI that the loop spacing cannot exceed 4' is incorrect. The Response to referenced RFI-T-0473 stated: The Minimum Distance between geothermal pipe loops is 4'-0".

T-0494 **BGP - Formwork- Form Release Compatability Certification** **Closed** **04/11/2013** **04/21/2013** **04/16/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: A1-9601 through A1-9606
Specifications Section 03 10 00.1.3.B.6

Please reference specifications section 03 10 00.1.3.B.6. Section states contractor shall submit for record a written statement certifying that form release agent used is compatable with susequent architectural finish materials

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The finish schedules are currently being prepared. After May 30, 2013 the "draft in-progress" schedules could be shared in response to an RFI issued at that time.

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applied to concrete surfaces. Drawings A1-9601 through A1-9606, is the room finish schedule, however the TG06.0 drawing package does not include the above mentioned finish schedule drawings. Without knowledge of the subsequent architectural finish, Shimmick Construction cannot comply with the above mentioned specification.

Please provide a room finish schedule so that Shimrnick Construction can comply with the above mentioned specification.

T-0494.1 **BGP - Architectural Finish Schedule** **Closed** **06/03/2013** **06/13/2013** **06/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Per attached RFI response T-0494, please provide SCCI with an architectural fin ish schedule.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the Draft Room Finish Schedules for the B2 and B1 levels on the attached SKA-2726 and SKA-2727.

T-0495 **BGP - Foundation Wall Concrete Inserts** **Closed** **04/12/2013** **04/22/2013** **04/24/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: A1-2812, A1-2821 A1-2842, A1-2843, A1-6231

Please reference the attached drawings regarding foundation wall concrete inserts. SCCI is requesting details clarifying the locations and scope of the horizontal concrete inserts on the mat slab level foundation walls and vertical concrete inserts on the lower concourse level foundation walls. The following issues have been discovered in the drawings:

1. A1-2843 has specified two contradicting lengths for the continuous vertical wall inserts as shown in the clouded

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Horizontal concrete inserts are to extend entire length of the South foundation wall. Refer to clarification on the attached sketch SKA-2690, which corresponds to sheet A1-2843.

2. There are no concrete inserts along the West foundation wall at B2 (Train Platform) level. Refer to clarification on the attached sketch SKA-2689, which corresponds to sheet A1-2842 for concrete inserts at the B1 (Lower Concourse) level.

3. Clarification notes have been added to SKA-2693,

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sections.
2. A1-2812 and A1-2842 appear to indicate inserts along the West wall however there is no information declaring lengths and scope.
3. A1-2821 references detail 3 / A1-6231 which is not a detail that is shown on A1-6231.

which corresponds to A1-6231. Reference correction shall be made to read A, B, C/ A1-6231. Also, starting point for horizontal concrete insert has been added on SKA-2687, which corresponds to A1-2820.

Attached sketches, SKA-2687, SKA-2688, SKA-2689, SKA-2690, SKA-2691, SKA-2692 and SKA2693 are included for clarification purposes. Their corresponding sheets shall be formally issued as an ASI at a future date.

T-0496 **BGP - Deneef Swellseal at Micropile Boots** **Closed** **04/11/2013** **04/25/2013** **04/26/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Shimmick Construction Comp Ben Gordon **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref Dwg. 2/A1-8711

Please reference Detail 2 of A1-8711 of the Contract Drawings and the attached letter from Deneef/Grace. Detail 2 of A1-8711 calls for a 6" diameter, 18 ga. galvanized steel boot to be adhered with trowelable grade adhesive and filled with urethane sealant. Submittal #TG0600-024 approved the use of Deneef Swellseal WA which is the product called out in Spec Section 07 12 10.

The attached Deneef/Grace technical letter dated 04/05/13, states that filling the entire boot with Deneef Swellseal is excessive and state that filling the entire boot with Swellseal WA is more than necessary and affect the curing capability.

Deneef/Grace suggests that the material be installed 2-3" deep and topped with a non-shrink grout such as "Rapid Set CT Construction Grout" or "Rapid Set Cement All" to contain it in the boot. The manufacturer states that the waterproofing ability of the material in this configuration would not be compromised. Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The design team does not object to your proposal.

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T-0497	**BGP - C29 Column Detail Clarification**	**Closed**	**04/17/2013**	**04/27/2013**	**04/22/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Specification: 03 20 00
Reference Drawing: S1-3300, A1-2850, S1-2030, S1-3303

Contract drawing S1-3300 refers to detail 1/S 1-3303 for the rebar elevation detail of column C29. Detail l/Sl-3303 appears to be for columns that pass through the ramp and based on drawing Al-2853 column C29 does not pass through the ramp.

Please confirm if Detail 1/Sl-3303 is the correct elevation detail for column C29.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The elevation reference for C29 should reference 1/S1-3301 instead of 1/S1-3303.

T-0498	**BGP - Waterproofing Mock Up**	**Closed**	**04/18/2013**	**04/18/2013**	**04/25/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 07 12 10 - 1.6.C.2

The waterproofing manufacturer's field representative/installer are to construct a 10'x10' on site mock up of the full waterproofing assembly. Upon completion of the mock up (excluding any major waterproofing deficiencies), SCCI intends to utilize it as part of the permanent structure. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is suggested, but not a requirement, the mock-up is installed separate from the work to allow the mock-up to be referenced in the future. Installing the mock-up as part of the work has some benefits in uncovering additional site issues.

2. All shop drawings related to the waterproofing and the proposed materials to be used have not been submitted to the design team for review at this time. The mock-up shall utilize the materials confirmed in the shop drawing process. If the mock-up is constructed with the wrong materials, the mock-up may need to be reconstructed with the proper materials based on the TJPA Representative's determination as to the acceptability of the materials utilized in the mock-up.

3. The mock-up is scheduled to be constructed today. The overall waterproofing work may not happen immediately, in which case the mock-up may need to be replaced if it is not properly protected until the remainder of the work is installed.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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T-0499	**BGP - Geothermal Manifold Location for Fields1 & 2**	**Closed**	**04/18/2013**	**04/28/2013**	**04/25/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Drawing: SK-3

Per the contract drawing, the manifold is to be located at an elevation no greater than 14' below finish grade (street) elevation. Per conversations in the preparatory DFOW meeting and other coordination meetings, the Engineer planned to have the manifold in a specific location. Attached is an elevation drawing for Field 1 & 2 Manifolds. Please confirm that the attached elevation details work with the designer's intent for the manifold locations for Field 1 & 2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Height of vertical sleeve penetrations through the foundation wall is acceptable for loop fields 1 and 2. Please submit similar clarifications for all further ground loop riser penetrations.

T-0500	**BSE - Micropile Blockouts in Mud Slab**	**Closed**	**04/18/2013**	**04/28/2013**	**05/01/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

Reference Specification: 03 30 00

In mud slab pour 1, micropiles W154, W154R1, W127, W236, and W236R1 are all blocked out. BBII would like the option to pour back the blockouts with 4,000psi neat grout (mix approved for installation of micropiles) or the approved 2,500psi concrete.

Please confirm that either option is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to using 4000psi neat grout in lieu of 2500psi concrete for filling mud slab blockouts at micropiles.

T-0501	**BGP - Slide Bearing Connection details**	**Closed**	**04/18/2013**	**04/28/2013**	**04/30/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Reference Drawings: S1-3204 and S1-3205

The two drawings detail the slide bearing assemblies at the east wall and vehicle/bike ramp. Detail 9-A on S1-3204 does not detail how the 10 gauge carbon steel plate is connected to the bottom support. Similarly, Details 2,3,6 and 7 on S1-3205 do not detail how the assemblies are

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 9/S1-3204: Provide 1"@4"OC max 1/8" fillet weld with 1" min at each corner along each side of the 10 gauge carbon steel plate attachment to the bottom support.

Details 2 & 3 on S1-3205: For 16ga plate to embed plate, weld shall be 1/8" fillet, 2" @3"OC all sides. For

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connected to the embedded plates. Please provide details on connections between slide bearing assemblies and support/embedded plates.

reinforced elastomeric backing to steel plate, bonded attachment per manufacturer.

Details 6 & 7 on S1-3205: For 16ga plate to embed plate, weld shall be 1/8" fillet, 1"@3"OC all sides. For detail 6 only, reinforced elastomeric backing to steel plate, bonded attachment per manufacturer.

T-0502 **BGP - Slide Bearing Weld Details** **Closed** **04/18/2013** **04/28/2013** **04/29/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Reference Drawing: S1-3205, S1-3210 and S1-3211

The details call for various pieces of the slide bearing assemblies to be continuously and tack welded to plates. See clouded callouts on attached drawings. No welding details are provided with the callouts. Please provide details for continuous welds and spacing for tack welds.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For details 6, 7, & 9 on S1-3204, 3/S1-3210 and 1/S1-3411 for both bottom and top support connections, provide 1"@4"oc max 1/8" fillet weld with 1" min at each corner along each side of the 10 gauge plate.

T-0503 **BGP - Geothermal Pipe Loop Bends** **Closed** **04/18/2013** **04/18/2013** **04/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Per the geothermal pipe manufacturer's (Performance Pipe) recommendations, the geothermal pipe should not be bent in a radius smaller than 25 times the pipe diameter. For the geothermal pipe loops, this equates to a bend radius of 41.5". However, the goethermal design drawings depict the loops to be 60" on center that would leave a large overlap (in theory) of almost 24"/2'. To achieve a 41.5" radius, the trench spacing will have to be increased to 83" between the supply and return trench. Please note, that the pipe manufacturer discourage "bulbing" the end of the loop and recommended resolving

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSPFK Response: Maintain pipe manufacturers' minimum long term bend radius as required per specifications with loop arrangement as shown on contract documents. Large Radius bends following the manufacturers' minimum pipe bend radius are an acceptable practice per IGSHPA standards (IGSHPA Design Manual Section 7.6.2.1). James Bradshaw 4/19/2013

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the issue away from bending or "bulbing" the end of the pipe loop.

S3H Inc. is proposing to overlap half of a loop onto another such that the spacing between pipes remains at a 4' minimum (per RFI T-0493). This would create a 8' minimum distance between the supply side of a loop and the return side of a loop. In doing so, a portion of the two overlapping loops would be crossing. Is this acceptable? Please find attached drawing #1 as a reference of the proposed layout. Please note that this proposed method would change the reverse return self balancing configuration of piping. This proposed method also has the possibility of being impacted by various micropile conflicts.

S3H Inc. is also proposing as a fix to field one to install 2 fused - 90 degree elbows at the end of each loop in a U-shape configuration using the current, as installed dimensions between the loops. Please find attached Drawing #2 depicting the 90 degree elbows on the loops This would eliminate the required 83" bend diameter. This is least impact proposal to rectify the already installed field 1, but would be an additional cost.

Please advise as to how to proceed with Field 1 as well as the remaining 14 Fields.

T-0504 **BGP - Radius Foundation Walls - R=637.63'** **Closed** **04/19/2013** **04/29/2013** **05/02/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Ref: Submittal Package T0600-030

SCCI's plan is to construct the R=637.63' foundation walls in 16' chords. Layout of the construction joints shall be per approved as noted CJ layout submittal. R=637.63' foundation wall runs along the Southwest portion of the project, from GL 3 thru GL 16, or SCCI's wall pours W160 thru W174A. See attached sketch of the wall detail for clarification.
Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposal to layout the wall in 16' chord segments is not acceptable. The foundation wall assembly is designed with a 2" zone for the waterproofing assembly and a 3' thick foundation wall. Providing chord segments instead of a curved radius will reduce the thickness of the foundation wall.

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T-0504.1	**BGP - Radius Foundation Wall Formwork**	**Closed**	**11/19/2013**	**11/29/2013**	**11/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please reference RFI T-0504.

SCCI plans to construct the south foundation walls from GL2.75 to GL 12.08 in 8' chords. See attached sketch for clarification. 8' chording of the walls will keep the wall faces within the construction tolerances.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/22/2013
RESPONSE:
The 8' chording on the curved part of the foundation wall, as proposed in the RFI, is acceptable.

T-0505	**BGP - Protection Board on Horizontal Surface of Waterproofing**	**Closed**	**04/19/2013**	**05/03/2013**	**04/29/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Dwg. A1-8710, A1 -8711, S1-3003

Please confirm that there is no protection board installed on top of the waterproofing membrane to receive protection slab. Drawing S1-3003 shows protection board, while A1-8710 & A1-8711 does not.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Protection board is not required on top of the waterproofing membrane which is to receive protection slab, as shown on the architectural drawings A1-8710 & A1-8711.

T-0506	**BGP - Continuous Horizontal Concrete Inserts**	**Closed**	**04/22/2013**	**05/02/2013**	**05/07/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: A1-6231

Please reference the attached sheets regarding continuous concrete inserts. On the enlarged detail C of A1-6231 SCCI is proposing the layout of the horizontal concrete inserts. Raising the bottom insert 1- 1/2" and lowering the top insert 1" will provide a greater clearance between the inserts and the construction joint. Achieving a greater clearance from the construction joint will reduce the risk of rock pockets or voids. Please confirm these dimensions as acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposal to raise the bottom insert 1 ½" and lower the top insert by 1" is acceptable.

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T-0507	BGP - Continuous Concrete dobie-mat slab	Closed	04/22/2013	05/02/2013	05/06/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please see attached sheets regarding mat slab bulkhead forms. SCCI is proposing the use of a continuous concrete dobie as part of the bulkhead design along the vertical construction joint. The continuous dobie will be installed with the reinforcement mats and will act as a cast-in portion of the formwork. The dobie will become a permanent member and will meet all specifications that the mat slab concrete mix design requires. Please confirm approval of the use of the continuous dobie.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The use of a continuous dobbie acting as both reinforcement support and permanently cast-in construction joint form is not acceptable to Thornton Tomasetti. We are concerned that the continuous nature of the proposed dobbie will increase likelihood of introducing two cracks in the mat (one at each face of the dobbie). Per spec, bottom reinforcing bars in mat slab shall be supported by precast concrete bricks or individual high chairs, supports which are not continuous. TT recommends either to move the dobbie in line with the form work and remove it prior to the next concrete pour, or use another removable option to form below the bottom reinforcement while providing required support for the reinforcement away from the construction joint.

T-0508	BGP - Drainage Composite Joint Orientation	Closed	04/23/2013	05/03/2013	04/25/2013	Potentially	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 07 12 10-3.2.F

This spec section states "Install drainage composite either vertically or horizontally and lap sheets 1 inch in the direction of water flow." The manufacturer's instructions state "the drainage side laps must be tightly butt joined together so there are no gaps or voids between them." SCCI suggests butt joining the drainage composites per the manufacturer's instructions. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposal to butt joint the panels is not acceptable for the conditions of this project.

The purpose of interlocking is to aid in supporting the drainage panels by hanging one from the one above.

T-0510	BGP - Internal Bracing Pin Pile #8 in conflict with Moment Beam BMATV	Closed	04/23/2013	05/03/2013	04/30/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Webcor Construction LP Kirk Nielsen

REQUEST:

Please reference attached marked up sheet S1-2202.

The location of internal bracing pin pile #8 conflicts with

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per discussions during 04/25/2013 "W/OJV Assist Meeting", this pin pile is being re-visited by Contractor to consider being eliminated as well as to be

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moment beam BMATV. General Note GR-9 on sheet S-0005 precludes blocking out moment frames. Upon submitting for the internal bracing system the TG03 BSE subcontractor was not aware of the location of beam BMATV to coordinate around. WOJV is requesting a variance from note GR-9 and is requesting to block out beam BMATV around pin pile #8.

Please advise.

coordinated with the in-progress re-bracing solution. Please close this RFI as currently presented.

T-0510.1 **BGP - Internal Bracing Pin Pile #8 in conflict with Moment Beam BMATV** **Closed** **05/02/2013** **05/14/2013** **05/15/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference attached marked up sheet S1-2202.

The location of internal bracing pin pile #8 conflicts with moment beam BMATV. General Note GR-9 on sheet S-0005 precludes blocking out moment frames. Upon submitting for the internal bracing system the TG03 BSE subcontractor was not aware of the location of beam BMATV to coordinate around. On 4/23/13 WOJV submitted RFI #T-0510 requesting a variance from note GR-9 and is requesting to block out beam BMATV around pin pile #8. During the 4/25/13 "WOJV SE Assist Meeting," when the issue was brought up, a PMPC employee suggested prematurely removing strut STA09 because it has diminished load. On 4/30/13 WOJV received RFI response #T-0510 stating pin pile #8 was going to be removed hence WOJV should close the RFI #T-0510. In addition to strut STA09 pin pile #8 supports strut #STB09 which is carrying a load, not that the internal bracing EOR would allow the premature removal of two strut levels. WOJV again requests a variance from note GR-9 and is requesting to block out beam BMATV around pin pile #8.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At pin pile #8 location, we will allow contractor to block-out the Lower Concourse beam. Contractor shall limit the width of block-out to 1/3 the width of the beam and refer to GR-9 for other block-out info. Block-out reinforcement shall be included in rebar shop drawings.

Note that the Lower Concourse structure acts as a brace for the foundation wall. Contractor is responsible for the stability of the structure per GR-4 as well as coordinating with other packages.

Note that the RFI mis-quotes the reason why the original RFI #510.0 was commented to be closed

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0511	**BGP - Deneef Swellseal at Electrical Grounding System Boots**	**Closed**	**04/23/2013**	**05/07/2013**	**05/09/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference SCCI RFI #130, Detail 5/A1-8710, and the attached letter. Detail 5/A1-8710 calls for 2" diameter, 18 ga galvanized steel boot to be adhered with trowelable grade adhesive and filled with urethane sealant. Submittal #TG0600-024 approved the use of Deneef Swellseal WA which is the product called out in Specifications 07 12 10.

The attached letter Deneef/Grace technical letter dated 04/05/13 states that filling the entire boot with Deneef Swellseal is excessive and state that filling the entire boot with Swellseal WA is more than necessary and may affect the curing capability.

Deneef/Grace suggests that the material be installed 2-3" deep and topped with a non-shrink grout such as "Rapid Set CT Construction Grout" or "Rapid Set Cement All" to contain it in the boot. The Manufacturer states that the waterproofing ability of the material in this configuration would not be compromised.

Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The manufacturer's recommendations are acceptable.

The question on RFI T-0511 is very similar to the question on RFI T-0496 and could have been consolidated in to one RFI, or better yet, this installation method should have been researched and proposed on the Waterproofing shop drawing submittal

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T-0512	**BGP - Additional Fasteners for Protection Board Installation**	**Closed**	**04/23/2013**	**05/07/2013**	**04/26/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Spec. 07 12 10-3.2.D

Please reference Spec Section 07 12 10- 3.2.D. Spec Section 07 12 10 - 3.2.D states the following: "Secure 1/4" protection board to flanges of soldier piles with powder driven fasteners and washers spaced 12 inches o.c. Butt vertical joints. Maximum joint width: 1/4" ..."

The manufacturer of membrane waterproofing system (Laurenco) has indicated that due to "out of plane" piles, and relaxation of CDSM substrate requirement, they are requiring intermediate fasteners to hold the 1/4" protection board tight to the CDSM wall. Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The design team does not object to the proposal.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0513	**BSE - Steel plate at CDSM piles 738-739**	**Closed**	**04/24/2013**	**05/04/2013**	**05/08/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Shad Gardner

REQUEST:

Ref: Specification Section 31 56 13

During leak grouting at level 5 excavation, a section of the CDSM wall panel between soldier piles 738-739 became dislodged, resulting in a high volume leak. In an effort to stabilize the damaged CDSM panel and stop the leak, BBII installed a steel road plate between soldier piles 738-739 and injected grout behind it.

BBII is concerned that removing the plate will likely cause the panel to become destabilized and could reopen the flow of water. BBII surveyed the face of the plate and found that at pile #738, the face of plate is 3' 0-5/8" back from the inside face of concrete wall and at pile #739 the plate is 3' 1-7/8" back from inside face of concrete wall. BBII proposes leaving the steel plate in place to maintain integrity of the CDSM panel. The edges of the plate may be grouted to provide a smooth transition to the CDSM wall for waterproofing.

Please confirm this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to leave the steel plate in place as proposed in the RFI. This will result in the waterproofing membrane encroaching in on the foundation wall at pile 738. The foundation wall at pile 738 may be reduced to 34 5/8" thickness and the foundation wall vertical reinforcement shall be modified per proposed solution presented in RFI 0448.0 for wall thickness reduction up to 3" and applied between piles 737 and 739.

W/O Note: Acceptable provided BBII take a survey of the face of the plate and provide coordinates.

T-0513.1	**BGP - Steel plate (RFI #T-0513) encroachment between CDSM Piles No. 738 & 739**	**Closed**	**05/16/2013**	**05/26/2013**	**05/24/2013**	**Potentially**	☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

As depicted in attached SK-0153.1, the encroachment of the steel plate is primarily in the mat slab pour. WOJV is proposing to locally adjust the reinforcement in the mat slab pour to achieve the required cover. There will be no change to the reinforcement on the wall width.

As a means of chamfering the offset the result of steel plates edges to the face of CDSM wall:
WOJV is proposing to mechanically fasten expanded metal lath to the CDSM beams using powder activated fasteners. Rapid set mortar is then applied to the required depth ensuring all edges of the plates have a gradual slope back to match the existing face of the CDSM wall.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable however this work should be coordinated with other disciplines.

Thornton Tomasetti Response:

It is not clear from the RFI when the Contractor proposes "...no change to the reinforcement..." if this means the unmodified wall contract bars stay in original location or if the bars will move inward. Based on the provided encroachment info, there is still encroachment in the wall. If the bars are proposed to move inward, the thickness of the wall is reduced and therefore the original response of T-0513 shall apply.

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If the Contractor proposes not to modify the wall reinforcement, please submit technical justification.

T-0514 **BGP - Mech Room Slab Finish Elevation and Grate Clarification** **Closed** **04/24/2013** **05/04/2013** **04/30/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: P1-2022

Drawing P1-2022 details slab elevations "TOC = -35'-8"" and "Future FFE = -35'-5"" Detail C/P1-4001 depicts a section view of the mat slab in the mechanical pump room; however, it is not clear whether both the Future FFE and TOC of mat slab are shown.

1. Please confirm if the attached marked up drawing is correct in detailing the two elevations.

2. Also, please confirm if the grates shown in Detail C/P1-4001 are part of the TG06 scope of work. If so, then please provide details for the grate.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The two elevations are correct.

2. It is the design team's veiw the pits and oil-sand interceptor covers are not part of the TG06 scope of work. WOJV shall confirm the scope of work in each bid package.

T-0514.1 **BGP -Mech Room Slab Finish Elevation and Grate Size Clarification** **Closed** **05/03/2013** **05/10/2013** **05/07/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Robert Kjome

REQUEST:

Reference Drawings A1-2102, P1-4001

Sheet A1-2102 between G.L. 4/5 and C.3/D note reads "PITS AND COVERS REF. TO MEP DWGS." MEP drawings do not provide grate sizes for the SFG, SE, nor OSI on C/P1-4001 in RFI T-0514.

Please clarify the MEP drawing that displays this information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor is responsible for determining the scope of work of each bid package. Contractor shall clarify this item for sub-contractor. In the future, do not submit scope of work questions between sub-contractors to the design team.

The TJPA Representative does not believe the Covers for SPG, SE, and OSI are included in TG06 scope of work.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0515	**BGP - Epoxy Coating for Form Saver Couplers**	**Closed**	**04/23/2013**	**05/07/2013**	**05/06/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Dwg. 6/S1-3001

Please confirm the typical splice form saver couplers (for future const.) as called out in detail 6/S1-3001 are to be epoxy coated per ASTM A-775 specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that epoxy coating of splice form saver couplers (for future const.) as called out in detail 6/S1-3001 shall be per ASTM A-775. In compliance with manufacturer's requirements (IAPMO-ER #0129), all threads of the coupler are to be free of debris, including epoxy coating, at the time of coupling, thus epoxy coating is to be applied to the exterior surface only (not the thread area). Note that the epoxy coating for the form saver is only required for the case where the form savers are used for splicing bars for future construction as noted in the detail 6/S1-3001. Other couplers do not need to be epoxy coated.

T-0516	**BGP - C Channel Conflict**	**Closed**	**04/24/2013**	**05/04/2013**	**05/09/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 30 20
Reference Sketch: attached
Reference Photos: attached

The C Channels welded to the soldier piles of the CDSM wall will inferfere with the installation of vertical reinforcement of the foundation walls (See attachments). Is it acceptable to remove the C-Channels one level at a time with each foundation wall lift in order to allow installation vertical reinforcement overlap.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

C-Channels should be removed when the associated level of bracing and waler are removed during the build-out of the train box.

T-0517	**BGP - Geothermal Pipe Loop Bends**	**Closed**	**04/25/2013**	**05/05/2013**	**04/26/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

SCCI and S3H Inc. are looking to confirm conversations from the Geothermal Design Engineer from the 4/24/2013 progress meeting.

-The Geothermal Piping can "bulb" eccentrically and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Geothermal Piping can "bulb" eccentrically and concentrically to incorporate the minimum 25D bend radius. -WSPFK Response: 25 Times OUTSIDE DIAMETER of pipe required for bend radius. Eccentric and Concentric "bulbs" are acceptable to achieve the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

concentrically to incorporate the minimum 25D bend radius.
-The bulbing of the geothermal loops can cause the loops to overlap and this is acceptable at the bulb locations.
-Due to the bulbing, the geothermal loo[may become in conflict with the micropile locations, please confirm that the pipe loopspacing can be adjusted.
-Please confirm that the staking of the geothermal loop pipe is acceptable to achieve the 25D bend radius requirement as long as the stakes are removed for backfill.

radius

-The bulbing of the geothermal loops can cause the loops to overlap and this is acceptable at the bulb locations. WSPFK Response: This is acceptable. At the meeting S3H agreed to provide some backfill between the pipes to prevent kinking of the pipes when they cross over each other.

-Due to the bulbing, the geothermal loo[may become in conflict with the micropile locations, please confirm that the pipe loopspacing can be adjusted. WSPFK Response: Loop Spacing at the bulbs can be less than the 4'-0" from RFI 473 in the areas required to miss micro piles but should return to 4'-0" minimum spacing after the conflict is passed.

-Please confirm that the staking of the geothermal loop pipe is acceptable to achieve the 25D bend radius requirement as long as the stakes are removed for backfill. WSPFK response: Temporary supports to maintain the 25 time OUSIDE DIAMETER bend radius are the means and methods of the contractor.

T-0518 **BGP - Differential Movement in Waterproofing Layers** **Closed** **04/25/2013** **05/05/2013** **05/20/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Per the Engineer's response to Submittal TG0600-023.2, the Contractor is to install the waterproofing system to incorporate "provisions for differential movement". Please reference the contract documents that specify the design criteria for the differential movement of the structure. Please advise to a specification or drawing note that details such.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI retracted as a request by W/O

T-0518.1 **BGP - Differential Movement in Waterproofing Layers** **Closed** **05/01/2013** **05/10/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Per the response to SCCI RFI #146 - Differential Movement in Waterproofing Layers, is movement expected and if so, how much movement is expected? If movement is expected, please provide Specification Section or Contract Drawing stating so.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As with all buildings there is expected to be movement due to settlement and at this site hydrostatic uplift on the building after the construction phase dewatering is turned off as well as movement from seismic events.

Please reference the geotechnical report for information regarding these issues.

W/O Note: The Geotechnical report was included in TG06 package as a reference document.

T-0519 **BGP - Waterproofing Detail Clarification at "Pressure Slab" Joints** **Closed** **04/25/2013** **05/05/2013** **04/29/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference Specification Section 07 12 10 - 3.3.G and Detail 4/A1-8710. Detail 4/A1-8710 shows a typical waterproofing detail for cold joints (construction joints) at walls. Spec Section 07 12 10 - 3.3.G states the following: "Apply two 9" wide strips staggered 6 inches and 3 inches centered over the following joints:
1. Under cold joints in the pressure slab. Temporarily protect the exposed side with protection board until the adjacent slab is cast.
2. On protection boards to receive blindside waterproofing."

1. Please clarify what the "pressure slab" is referring to as there is no reference to "pressure slab" in the Contract Drawings.
2. Please provide a detail for waterproofing for this condition as a detail does not exist in the Contract Documents. Detail 4/A1-8710 does not reflect what is called out in Specifications Section 07 12 10 - 3.3.G for construction joints.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The term "Pressure Slab" in Specification Section 07 12 10 is the 5' thick "Mat Slab" on the drawings.

2. The contract drawings and specifications cover the general requirements and waterproofing system parameters. Specification 07 12 10 - 3.3.G is clear regarding membrane configuration below cold joints. The contractor should provide a submittal detail following the waterproofing manufacturer's recommendations for this condition.

T-0520 **BGP - Finish Floor Elevation** **Closed** **04/26/2013** **05/10/2013** **05/06/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Dwg. P1-2022
Ref. Spec. 22 13 01

Contract drawing P1-2022 calls out "Future FFE = -35'-5"" for the Future Finish Floor Elevation. This elevation note does not appear in any of the other mat slab plumbing drawings (P 1-2023 to P 1-2030). Please confirm if the Future Finish Floor Elevation applies to the entire mat slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The call out 'Future FFE = -35'-5" applies only to the Future Floor Finish Elevation for the area containing service rooms at B2 Level North West bounded by the the points GL B, 1.5; GL B, 5.5; GL F.7, 1.4 and GL C.5, 5.5.

T-0521 **BGP - 1 in Aggregate in Protection Slab Cast-in-Place Concrete Mix Design** **Closed** **04/29/2013** **05/09/2013** **05/02/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Submittal TG0600-200.1

Please reference submittal TG0600-200.1 (cast-in-place concrete mix design - Protection Slab). Per the referenced submittal and submittal response, sent to SCCI April 12, 2013 and returned as "Make Corrections Noted," SCCI intends to use 1" aggregate in the above mentioned cast-in-place concrete mix. In addition, the above mentioned mix design was also reviewed at the TG06.0 Protection Slab Preparatory DFOW meeting, held April19, 2013.

Please confirm the use of 1" aggregate in the Protection Slab is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed: the use of 1" aggregate at the Protection Slab is acceptable.

T-0522 **BSE - Micropile Relocation- Performance Test Pile Zone 2 (Sequencing)** **Closed** **04/29/2013** **05/09/2013** **05/03/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Ref: S1-2023

The primary performance test micropile is yet to be installed for Zone 2. Due to sequencing advantages, BBII proposes relocating this pile from the original location

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At the request of W/O, this RFI will be pulled back from the design team, and superseded by RFI T-0522.1.

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shown in S1-2023 to GL 15 between B&C. The relocated micropile location is within the geothermal area; however, it does not appear to impact geothermal piping. See attached sketch.

Please confirm this is acceptable.

T-0522.1 **BSE - Micropile Relocation- Performance Test Pile Zone 2 & 3 (Sequencing)** **Closed** **05/02/2013** **05/12/2013** **05/03/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Ref: Specification Section 31 63 33 1.1B

This RFI supersedes RFI T-0522.
DTDS proposes to reduce the design length of the Micropiles East of Gridline 17 (EG17) from 80 feet to 70 feet. DTDS has shown through testing and reduced post-grouting that a higher soil-grout bond than originally assumed in the design can be achieved in the field. DTDS will install two (2) performance test piles to verify the capacity of a 70 foot micropile EG17. One performance test pile will be installed in Zone 2 at gridline 17 between piles E005 and E008. The second performance test pile will be installed in Zone 3 at gridline 20 between piles E136 and E137. DTDS believes that 70 foot micropiles EG17 will still achieve the maximum required load capacity of 2.4 times Design Load (560 kip). The performance test piles will be installed with one (1) round of post-grout. Based on the results of the testing, additional post-grouting can be provided as necessary.

Upon completion of the testing DTDS will submit revised micropile working drawings and calculation supplement.

All production micropiles will continue to be proof tested per the Specifications. The performance test locations provided would supplant the performance test locations shown in the Contract plans for Zones 2 and 3.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed relocation for the zone 2 performance test micropile is acceptable.

The proposed relocation for the zone 3 performance test micropile is not acceptable. (The contract documents indicate the zone 3 performance test micropile to be located at GL E and to the east of GL 22. If the contractor desires to relocate the zone 3 performance test micropile, the proposed location will not be approved at locations west of GL 22.)

Thornton Tomasetti does not object to the other aspects of the RFI except to note that the maximum required load capacity for the performance test remains at 2.8 times the Design Load (not 2.4), per the contract documents.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0523	BGP - Floor Drain Elevation in Foot Traffic Areas	Closed	05/01/2013	05/09/2013	05/07/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Ian Corcorran

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref: Specification Section 22 13 01 - 3.2 D.3

Contract specification 22 13 01 - 3.2.D.3 have the following criteria for installation of floor drains:

a. Set drain rims flush and level with finished floor in areas subject to foot traffic.
b. Set drain rims minus 1/8-inch to 1/4-inch from finish floor elevation, so as to provide positive drainage, where drain is not subject to foot traffic.

Please provide a map of areas which are to be subject to foot traffic.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All floor drains to be installed with rims and grates flush and level with finished floor, also the floor sinks.

T-0524	BGP - Protection Slab Minimum Thickness	Closed	05/08/2013	05/18/2013	05/08/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: S1-3201, A1-8710

SCCI wiIl set the top elevation of the protection slab at -40.67' as shown on the attached contract drawing. Protection slab thickness may vary due to mudslab elevation, mudslab heaving or built-up waterproofing membrane, adhesive and flashings.

Please provide minimum thickness for protection slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Protection slab to be 4" thick typical throughout, but can locally reduce to 3".

T-0525	BGP - Asphalt Cement Specification	Closed	04/30/2013	05/10/2013	05/03/2013	Potentially	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: Specification Section 07 12 10 - 3.2.E.

Please reference Specification Section 07 12 10 - 3.2.E. Specification 3.2.E states "Install two plies of asphalt saturated felts over the protection board in walnut sized

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Asphalt Flashing Cement product should conform to ASTM D3747 for bituminous emulsions or D4586 Class I Type I for solvent bearing depending on how dry the substrate is. An example is Karnak's Perfectseal, Flashing Cement, Amphibikote or "Slaters

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gobs of asphalt cement sufficiently spaced to hold felts in place." Spec Section 07 12 10 does not specify the type of asphalt cement to be used. SCCI submitted Roofxtender RX-100 Flashing Cement which was rejected. Shimmick is now proposing to use Laurenco recommended AIM # 340 Flashing Cement. Please confirm that this is acceptable.

Cement". The Contractor shall provide a shop drawings submittal with their proposed product for use on the project.

T-0526 **BGP - Replacement of T9 Wall Cross Ties with S3 Open Stirrups** **Closed** **05/02/2013** **05/14/2013** **05/07/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref Dwg. S1-3201

Please confirm that it is acceptable to replace two T9 wall cross-ties, as depicted in detail 1 on S1-3201, with a single S3 open stirrup. Reference the attached sheets depicting the configuration of the T9 crosstie and S3 open stirrup.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed replacement of two cross-ties with a single open stirrup is structurally acceptable. However, please verify the proposed reinforcement scheme does not negatively affect the constructability.

T-0527 **BSE - Revision to Zone 4 bracing elevations level A-D** **Closed** **05/01/2013** **05/11/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Danny Walsh

REQUEST:

Ref: Specification section 31 55 00

Please confirm the design team has no exceptions to raising the Zone-4 bracing elevations, all levels of struts/walers and all related strut supports/trestle bracing, 1'-0" so as to facilitate the specified waterproofing lap in relation to the top of wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable with regards to the geotechnical aspects of building the excavation.

The Contractor shall coordinate this change with regards to potential conflicts during the construction of the other building trades.

Stacy Wilson 5/13/2013 URS: WO/BBII is required to provide written documentation from the Internal Bracing and Access Trestle design Engineers of Record (PB&A), stating that they have reviewed and approved this elevation change. If this contractor requested change is approved by PB&A and the design team (AAI, Arup, Thorton-Thomasetti, etc.), the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Internal Bracing submittal is to be revised accordingly and resubmitted in constructware for review and approval.

T-0527.1 **BSE -Revision to Zone 4 Bracing Elevations Level A-D** **Closed** **05/10/2013** **05/20/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

As installed and or planned the current elevation of the A-level internal bracing walers conflicts with the TG06 wall termination elevations relative to the waterproofing overlap which was unspecified when the internal bracing was submitted. Please find attached RFI SK-527.1-1, WOJV proposes to:

1. Reduce the TG06 top of wall elevation 2'-0" to an elevation of +7.50' between approx. GL(s) 1 to 16-17.
2. Reduce the TG06 top of wall elevation 1'-0" to an elevation of +3.50' between GL(s) approx. GL(s) 16-17 to 25-26.
3. Reduce the TG06 top of wall elevation .75' to an elevation of +1.50' between GL(s) approx.. GL(s) 25-26 to 35.

This scope reallocation would exchange concrete rebar and waterproofing from TG06 to TG07 package, which assuming a prompt response, there is still time to do.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

W/O to coordinate.

W/O Comment: WOJV is herein amending the TG06 documents to reflect the top of wall elevations specified in above items 1-3. The TG06 Trade Subcontractor is to provide a credit for, to include however not limited to, the concrete rebar and waterproofing which has been deleted from the TG06 scope of work.

T-0527.2 **BSE - Revision to Zone 4 Bracing Elevations Level A-D** **Closed** **05/28/2013** **06/07/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Sketch: SK-5773

Webcor is proposing that the vertical changes in elevation

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Acceptable

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(per RFI T-527.1) from +7.50' to +3.50' at level A gridline 16 - 17 will occur at a distance of 14'4" from gridline 16 and will be located between CDSM piles 164 - 165 on the north wall elevation and between CDSM piles 618 - 619 on the south elevation

Also vertical changes in elevation level A between gridline 25-26 from +3.50 to +1.50 will occur at a distance of 18'4" from gridline 25 and will be located between CDSM piles 265 - 266 on the north wall elevation and between CDSM piles 517 - 518 on the south elevation

Please confirm is this is acceptable

T-0527.3 **BGP - Revision to the top of the foundation wall Elevations TG06** **Closed** **10/25/2013** **11/04/2013** **10/29/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Due to the revision of the Zone 4 internal bracing and the use of the already procured steal sections the lookout installed for level A bracing were installed at a lower elevation than first planned resulting in the need to revise the finished elevation of the foundation wall downwards for the TG06 package.
This scope reallocation will now be moved to the TG07.2 work package. See sketch SK01 attached for TG06 foundation wall finish elevations.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
10/25/2013
RESPONSE:
This RFI involves the Contractor's Means and Methods. It is not the Design Team's role to define Scope of Work.

T-0528 **BSE - Zone 4 Level 2 Excavation** **Closed** **05/02/2013** **05/12/2013** **05/13/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Danny Walsh

REQUEST:

Per sheet GT-1111, excavation at each level is limited to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3' below the centerline of internal bracing struts. In zone 4, the spacing between Level A and B struts is only 8' O.C. (typically 12' to 14' elsewhere), which provides extremely limited clearance below Level A for excavation & demolition equipment at level 2 excavation. BBII requests the limit of level 2 excavation be extended to 7' below centerline of level B struts. (Note: the plans already allow for a +/- 2' variation in bracing elevation from those shown on sheet GT-1111. Therefore, BBII is only requesting two additional feet of excavation over what is allowed based on the contract drawings). Please advise if this is acceptable.

It is acceptable to overexcavate the center of the excavation below the centerline of the level B struts in accordance with the illustration titled Stage 5 on sheet GT-1111 of the drawings. Berms along the shoring wall must be maintained.

T-0529 **BGP - CJ Layout at Gridline J** **Closed** **05/02/2013** **05/14/2013** **05/13/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Drawings: S1-2052
Ref. Spec. 03 30 20- 3.2.A.4

Per Contract Specification 03 30 20- 3.2.A.4, foundation wall, lower concourse floor slab, and ground floor construction joints shall align with the location of the mat slab joint below.

SCCI proposes to have a construction joint at grid line J as shown on attached drawing CJ -11; however, the construction joint would end up dividing the knockout wall into 2 pieces. SCCI proposes to install the J-line construction joint through the mat slab and typical foundation walls while omitting the construction joint through the knockout wall.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The construction joint presented in the RFI is acceptable.

T-0530 **BGP - Dimension conflict between space allocated for BGP waterproofing and BGI** **Closed** **05/03/2013** **05/12/2013** **05/28/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Kirk Nielsen

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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REQUEST:

Ref: GT-2101 Detail 1
Specificaiton Section 07 12 10

To include however not limited to, sheet 1/GT-2101 allows 2" for the specified below grade waterproofing. The installed waterproofing system (07 12 10) thickness is 2-1/4". The insulation layer of the waterproofing system is specified at ½" (07 12 10.2.5.E).

So as to resolve the proximity conflict may the contractor reduce the specified insulation thickness from ½" to ¼"?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The insulation of the waterproofing assembly is to remain at the specified thickness of 1/2".

T-0531 **BGP - Waterproofing Detail Clarification for Flashing Penetrations** **Closed** **05/03/2013** **05/12/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 07 12 10
Reference Drawings: A1-8710, A1-8711

Contract Drawings and approved shop drawings show sheet metal boots over micropile penetrations set in trowel grade adhesive over two plies of Laurenco.

Spec Section 07 12 10- 3.4 states the following:

A Install flashing at terminations and penetrations

B. Flash waterproofing with a minimum of 2 plies of woven glass fabric and 3 applications of adhesive. Extend first ply 6 inches onto each membrane and second 8 inches

C. At penetrations, apply a minimum of2 plies spirally wrapped and a target patch per Manufacturer's requirements. Where indicated on the drawings provide stainless steel drawbands.

Contract Drawing details and approved shop drawing submittal details do not match what is called out in the above Spec section. Please advise as to which detail is to be used (shop drawing or

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The micropile penetration detail is shown on 2/A1-8711, which is also shown on the BGP Modified Bitumen Waterproofing Shop Drawings. There have been subsequent RFI responses regarding the sealant fill for the boot.

Please refer to Specification Section 07 12 10 1.4 C regarding details prepared specifically for this project. The shop drawing concurs with the designed detail. If the contractor believed this detail conflicts with intentions of the specification and design requirements, this issue should been raised earlier and an alternative proposal made for consideration at the shop drawing stage.

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specifications).

T-0532 **BGP - Sump Pit Grate Requirements** **Closed** **05/07/2013** **05/17/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Dwg. P1-2022 through P1-2027

There are several sumps shown on the referenced Architectural drawings which are not shown and/or defined on the corresponding Plumbing drawings. The Plumbing Drawing Sheet Notes indicate the grating requirements for all other sumps and Catch Basins on the project (reference note No 1 ,2, 14 and 16 on P1-2022 through P1-2027) There are no such notes for grating requirements for the sumps shown on the attached marked-up Contract Drawings. See attached. Please verify that no grating is required for these sumps.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no grating required for these sumps.

T-0533 **BGP - Mat Slab Drainage System Testing** **Closed** **05/06/2013** **05/16/2013** **05/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Specification Section 22 13 01 3.3 E, Reference 2010 California Plumbing Code article 712.

Article 712.1 Media, of the California plumbing code states that: "The piping of plumbing, drainage, and vent piping systems shall be tested with water or air except that plastic pipe shall not be tested with air."

For testing of the cast iron drainage lines that get embedded in the Mat slab SCCI would like to utilize the air test method.Air test method is specified in the California plumbing code article 712.3, and achieved by: "forcing airinto the system until there is a uniform gauge pressure of five (5) PSI. The pressure shall be held without

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As the Contractor is aware of, the Plumbing Code outlines minimum requirements. The system shall be tested per the Contract Documents as described in specification Section 22 13 01, paragraph 3.3.E.

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introduction of additional air for a period of not less than fifteen (15) minutes."

Is this acceptable?

T-0534 **BGP - Request for Latest Revit Model** **Closed** **05/07/2013** **05/16/2013** **05/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Specification: 01 31 26

SCCI is requesting access to the latest, most up to date Structural and Architectural Revit models from the designers. The 3D database would be used for reference only and will not be used for construction. SCCI understands that the 3D Database is subject to change as the project design evolves. As a user of this 30 database, SCCI accepts the risk and acknowledge that the data is subject to change. SCCI also acknowledges the terms and conditions outlined in the Transbay Transit Specification Section 01 31 26.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The updated In-Progress Revit computer model will be issued to TJPA for review and comment on May 31, 2013. TJPA will forward this model to the Contractor for information, review, and comment. The Revit model is clearly clarified as not a Contract Document for use in construction. The documents issued on May 31, 2013 are not being issued for bid or construction. The Contractor shall determine when, for what purpose, and how the model is shared with their Sub-contractors.

T-0535 **BGP - Elevator Opening Encroachment at Concrete Beam B131** **Closed** **05/07/2013** **05/16/2013** **05/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: A1-2842, S1-2202, S1-3401

Please reference attached Contract Drawings A 1-2842, S 1-2202 and S 1-3401. DrawingS 1-2202 calls out concrete beam B131 running east to west between the elevator and Stair openings. The dimensions of concrete beam B131 are 22 inches wide and 36 inches high. See drawing S1-3401 for beam schedule. A1 -2842 calls out the spacing between openings to be 1'-9". This makes the elevator pit encroach 1 inch into concrete beam B131. Shall the elevator opening be relocated 1 inch to the south to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The openings in the Lower Concourse slab shall remain as shown on A1-2842. The beam shall be modified to 21" wide by 36" deep. Longitudinal reinforcement for this beam shall be 2-#10 for continuous top bars, 3-#10 continuous for bottom bars, and 3-#10 additional short bottom bars (L=18'-0" centered at midspan). Stirrups shall be #4's, type 2, 12@8"OC from each end, balance at 12" OC. Top & bottom clear cover to the stirrup shall be 3" and 1.5", respectively.

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accommodate the concrete beam? Please advise.

T-0536 **BGP - Sump Conflicting with Trestle Pile** **Closed** **05/07/2013** **05/06/2013** **05/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Drawing: A1-2817, S1-2027

Based on the latest BBII trestle model available to SCCI and contract drawing A1-2817, there appears to be a conflict between a sump pit and trestle pile near column line "34" and "E". Please refer to the attached screen shot from SCCIs Revit Model.

8/31/2012 IFC drawings did not show this sump pit as it was added in ASI No. 0099.

Please provide direction on how to proceed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sump pit located at 7'-6 ¾" west of GL 34 per A1-2817 shall be relocated to 12'-3" west of GL 34 to avoid this conflict.

W/O note: Please confirm that the relocation of this sump pit does not conflict with any micropiles in the surrounding area.

T-0537 **BGP - Sump Pit/Catch Basin Clarification at Gridlines C/19.1** **Closed** **05/07/2013** **05/16/2013** **05/13/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Specification: 22 13 01
Reference Drawing: A1-2815, S1-2055, P1-2025

The pit near gridlines C/19.1 is identified as a catch basin in drawing A1-2815 but identified as a sump pit in drawing S1-2055. Drawing P1-2025 does not show any piping for this pit. Please confirm if this should be a sump pit or is the piping detail missing?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a sump pit in an escalator pit. There is no grate or piping associated with this sump pit.

T-0538 **BGP - Sump Pit Frame Elevation** **Closed** **05/07/2013** **05/15/2013** **05/10/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref Dwg. P1-2022, P1-6001

Please reference attached sketch SK-0163 and Contract Drawings P1-2022 and P1-6001. Drawing P1-2022 calls out Top of Concrete = -35'-8" and Finish Floor Elevation= -35'-5". P1-6001 Detail 8 shows top of sump grate frames to be flush with the surface in which it is embedded. It is unclear whether this is top of concrete or top of finish floor. SCCI has not been provided drawings to confirm topping slab extents. There shall be a 3 in vertical edge if sump pit frames are placed flush with top of mat slab concrete and a topping slab is placed in the future. See attached SK-0163 for details. SCCI intends to place top of sump pit frames flush with top of mat slab concrete. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All sump pits and catch basins identified on plumbing drawings and located in the future track areas have the grating flush with top of concrete at elevation -35'-8".

T-0539	**BGP - ASTM 123 Galvanizing Variance**	**Closed**	**05/07/2013**	**05/17/2013**	**05/07/2013**	**Potentially** ☐

From: Webcor Construction LP Kody Cooper

To: Turner Construction Compan Gary Krutsch

Answered By: Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 05 05 15.3.3.B and the attached letter from AZZ Galvanizing

The steel pipe penetration sleeves are to be coated under the Structural Shapes and Plate Material Category with a grade of 100 and 3.9 mils thickness per Tables 1 & 2 of ASTM A123. The first 2 shipments of steel penetration sleeves (approximately 12 pin pile and 17 trestle pile) were coated under the pipe and tubing material category with a Grade 75 per Table 1 of ASTM A123. This coating grade requires 3.0 miles per Table 2 - Coating Thickness Grade. SCCI is requesting that the Grade 75 be allowed for the first two pin pile in Area 1 that are fit and welded to the intermetallic layers having still penetrated the material and per the attached letter, the process used will insure a long service life. The average thickness for the specified pin pile above is 3.2 mils. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No

T-0541	**BGP - Protection Board Installation at SW Corner**	**Closed**	**05/09/2013**	**05/23/2013**	**05/13/2013**	**Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref Spec. 07 12 10- 3.2.D

Please reference Specifications Section 07 12 10- 3.2.D. This spec states the following: "Install protection board on vertical surfaces with long dimension vertical and the polyethylene film side facing the soil/cement surfaces. Secure 1 /4" protection board to flanges of soldier piles with powder driven fasteners and washers spaced 12 inches o.c .... "

At the SW comer of the project, the soldier beams are spaced greater than the width of the protection board. We suggest rotating the protection board 90-degrees so that the long dimension is horizontal instead of vertical. This would allow for attachment to the soldier piles and the inside comer of protection board to be heated and formed into the comer. We also suggest using this method where pile spacing exceeds 4' on center.

Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contactor's suggestion to rotate the protection board 90-degrees is acceptable where the soldier pile spacing and the waterproofing manufacturer require.

T-0542 **BGP - Drainage Mat Installation Clarification** **Closed** **05/09/2013** **05/23/2013** **05/13/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Spec. 07 12 10- 3.2.F.

This spec section states the following: "Install drainage composite in largest practical sizes over the entire area of the felts. Install either vertically or horizontally and lap sheets 1" in direction of flow ... "

1. If drainage composite is installed vertically, please confirm that direction of water flow is down vertically towards the mudslab.

2. Please confirm that only horizontal joints in the drainage composite will be lapped 1 inch.

3. Please confirm that vertical drainage core joints will be butt jointed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Design Team confirms that Items 1, 2 and 3 of this RFI are correct.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0543	BGP - Galvanizing Varying Material Category Variance	Closed	05/09/2013	05/23/2013	05/21/2013	Potentially	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Spec. 05 05 15- 3.3.B.2

Reference is made to Specification Section 05 05 15-3.3.B.2 and the attached 'Ask Dr. Galv' galvanizing article. Section 3.3.B.2 states "When galvanizing assemblies of components of varying material category and material thickness, provide minimum coating thickness grade for all members equal to or exceeding the maximum highest material category coating grade."

For the dewatering and piezometer mat slab penetration sleeves, A513 tube is being used, which has a Grade 75 designation per ASTM A123. Based on the above specification, Grade 100 must be followed because these sleeves have plate components. The reason Grade 75 is specified in ASTM A123 is that it is the minimum consistent attainable galvanizing coating for the thickness and chemistry of the material being coated. As an aluminum killed steel product, it is not a natural catalyst to galvanizing as silicon is per the attached article. To specify Grade 100 goes beyond A123 specifications. Therefore, SCCI requests Grade 75 be used, with a minimum coating thickness of 3.0 mils, for the dewatering wells and piezometer mat slab penetration sleeves. Please be advised if Grade 100 (3.9 mils) is required, the galvanizing process to attain the thicker coating can lead to embrittlement and delamination of the coating. Is Grade 75, with a minimum 3.0 mil coating thickness on the dewatering well and piezometer mat slab sleeve penetrations, acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per specification section 05 05 15 / 1.3 submit shop drawings of the galvanizing schedule, submit samples of the galvanizing, and submit monthly certificate signed by the galvanizer. If in the shop drawing process the Contractor submits a certificate signed by the galvanizer as required by specification section 05 05 15 / 1.3D stating the proposal above meets the recommendations of and is in compliance with the specified ASTM standard's minimum requirements, the Contractor's proposed galvinanizing thickness will meet the design intent of the contract documents.

The last galvanizer certificate received in the Transbay shop drawing process was dated January 4, 2013 and it is not clear if that shop drawing covers the item referenced in this RFI.

T-0544	BSE - Micropile Relocation - W990 & W986 (Well Obstructions)	Closed	05/10/2013	05/11/2013	05/13/2013	Potentially	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Micropiles W990 and W986 as laid out are both in conflict with dewatering wells. BBII recommends relocating W990 south 3' and W986 north 3'. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropiles W990 and W986 as proposed.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0545	**BGP - Embedded Junction Box Details**	**Closed**	**05/10/2013**	**05/24/2013**	**05/24/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref. Dwg. A1-2842, A1-2850

Please reference Contract Drawings A1-2842 to A1-2850. These drawings contain numerous "EJB" callouts. SCCI's issued drawings do not contain details for embedded junction boxes. SCCI is trying to determine if there will be any conflicts with the EJB locations. Will the EJB's be selected by the future contactor in which this scope is contained? If specific EJB's have been specified already, please provide the detail so SCCI can confirm there are no conflicts with SCCI's scope.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the electrical drawings and specifications section 260534 for EJB specifications. The related information to select and detail the box is included in the Documents.

T-0546	**BGP - Shear Reinforcement and Drainage Conflict at Grldlines 4/C**	**Closed**	**05/09/2013**	**05/23/2013**	**05/28/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref Dwg A1-9215, S1-2022

At gridlines 4/C, the floor clean out and floor sinks (see A1-9215) cannot be installed due to the spacing of the top layer mat slab and shear reinforcement (see S1-2022). Please advise on how to proceed. Reference the attached sketch of conflict.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT response: From the floor sink dimensional info provided in the RFI, it appears the floor sinks will interrupt the top bars of the mat. Contractor shall apply detail 1 on S1-3501 for reinforcement requirements at top mat bars that are interrupted by the floor sinks.

WSP Flack and Kurtz response: The floor sink located east of column 4/C may be moved North, next to the Fire Pump room North wall. The floor clean-out may be moved to a similar position, south of the relocated floor sink. The associated vent and the trap primer line will be relocated in front of the Fire Pump Room north wall.

T-0546.1	**BGP - Follow Up to RFI 173- Shear Reinforcement and Drainage Conflict at 4/C**	**Closed**	**06/28/2013**	**07/08/2013**	**07/12/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing A1-9215, S1-2022, Spec Section 03

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AAI - Please see SKA-2763 for new location of FSK

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

20 00

Response to SCCI RFI #I73 (WOJV RFI#T-0546) did not provide SCCI with clear direction on how to proceed with the conflicts between the floor clean out and floor sinks at gridline 4/C (Ref A 1-9215 and
S 1-2022) with top layer of rebar and shear reinforcement. TT response only addresses the top bars of the mat, and not the shear reinforcement that will be in conflict with the floor clean out and floor sinks. WSP Flack and Kurtz suggests possible alternate locations of the floor sink and cleanout vent and trap primer.
Please provide clear direction on what action SCCI is to take.
If the locations are to be moved, please provide exact locations of the floor sink and cleanout.

and FCO within the Fire Pump Room.

TT - The floor sink and cleanout shall be moved such that they do not conflict with the headed shear reinforcement. From the floor sink dimensional info provided in the RFI, it appears that floor sinks will interrupt the top bars of the mat regardless of where they are located. Contractor shall apply detail 1 on S1-3501 for reinforcement requirements at top mat bars that are interrupted by floor sinks.

F&K - For revised piping layout of the Fire Pump Room, see attached sketch PSK-2022

T-0547 **BGP - North Shear Wall** **Closed** **05/09/2013** **05/23/2013** **05/24/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Ref Dwg. 3/S1-3204

Reference detail 3 on the contract drawing S1-3204, and the attached sketches. From the noted detail, it is unclear whether the designer's intent was to construct the foundation wall to North-most shear wall interface monolithic. Please confirm.

If the intent of the Designer is to pour shear wall and foundation wall monolithic, it will be difficult to properly secure formwork in the acute corner of the walls interface. Due to the constructability issues of this foundation area SCCI suggest to add vertical construction joint to the North shear wall. See attached sketches for reference. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We do not object to the proposed construction joint for the north shearwall.

T-0548 **BGP - 3 ft Chamfer at South Foundation Wall** **Closed** **05/08/2013** **05/22/2013** **05/22/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Ref. Dwg. S1-2030, 2/S1-3204, A1-2110

Reference attached contract drawings S1-2030, S1-3204 (detail2) and A1-2110. Structural drawings do not show the detail for termination of the 3 ft chamfer at the end of the south foundation wall. CD A1-2110 indicates that the 3 ft chamfer terminates at the face of the knockout wall.

Please provide details and where does the 3ft chamfer, at the West end of the South foundation wall, terminate?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The chamfer along the south foundation wall terminates at the face of the west knock-out wall as shown on sheet S1-2060 (Mat Top Reinforcement - Zone 10 Plan), and is not intended to show on S1-2030. Vertical bars of pilaster reinforcement extend to bottom of mat and the hairpins & cross-ties extend 12" below top of mat.

T-0549 **BGP - Testing of WPM-1 Seams** **Closed** **05/13/2013** **05/23/2013** **05/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

During the 5/10/13 waterproofing meeting Jon Laurence (Laurenco) and Carl Keim (AAI) clarified that specification section 07 12 10.3.5.B (independent testing all seams) only applies to the Laurenco products i.e. membrane layers, butyl tape, and flashings. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Design Team confirms that statement in the RFI is correct.

T-0550 **BGP - Request to Revise Lower Concourse Elevation** **Closed** **05/14/2013** **05/24/2013** **05/24/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Exhibits: A - G

The BSE IFC drawing S1-3201 (Exhibit-A) depicted the Lower Concourse slab at an elevation of -8'-8" between grid lines 9-3 and West of grid 3 & North of grid E.6.

Although specification section 01 13 00.1.3.H.3 precludes the TJPA from making scope changes in submittals, on 3/29/11 the TJPA returned submittal package ID TG0300-541/submittal ID TA2010-315500A10 (Exhibit-B) which included a note stating the Lower Concourse level slab varies as follows:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor's suggestion to revise the Lower Concourse slab elevation is NOT acceptable. The contractor is to follow the elevations set out on the latest Below Grade Package documents.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

T/Lower Concourse slab East of gridline 9 = -8'-2"
T/Lower Concourse slab West of gridline 9 = -5'-5"

Although specification section 00 07 00.1.01.37 stipulates a Field Order is not to involve a change in Contract Sum or Time, on 9/7/12 after the zone-1 level-B bracing and trestle was installed (Exhibit-C), the TJPA issued Field Order #T-00008 / ASI #0097 (Exhibit-D) which revised the top of the Lower Concourse slab elevation between grid lines 1-5.5 from -8'-8" to -5'-5" a difference of -3'-3" reference sheets S1-3201 (Exhibit-E) and S1-2202 (Exhibit-F).

The latent elevation change of the Lower Concourse slab has created proximity conflicts with the previously installed internal bracing and trestle steel depicted on the attached marked-up drawings (Exhibit-G).

WOJV has surveyed the internal bracing and trestle steel conflicting with the Lower Concourse slab and believes the most cost and schedule efficient solution would be to again revise the elevation of the Lower Concourse slab to -6'-6".

Please advise if the proposed elevation revision is acceptable.

T-0551 **BGP - CR T-069 Wall Penetration Link Seals** **Closed** **05/14/2013** **05/28/2013** **05/29/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Ref Dwg. 4/A1-8712

SCCI is in receipt of CR T-069 regarding the below grade modifications. On Plan Sheet A1-8712, Detail 4 was modified to relocate the second link seal to opposite end of the penetration sleeve. Originally, both link seals were located in series at the surface of the concrete wall. This relocation is not constructible in that the link seal cannot

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to have the linkseals installed in the sleeves from the inside, with exception of the incoming electrical service ducts to the transformer vaults that are located inboard of the exterior walls. This applies to the sleeves serving electrical vaults B1322, B1325, B1561 and B1562. Because these sleeves must be concrete encased as they enter the building and cross the service corridor, the linkseals need to be provided

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

be installed or tightened properly when located 3ft into an embedded sleeve. In addition, this link seal cannot be installed prior to placing concrete due to access issues adjacent to the CDSM wall. Is it acceptable to return the relocated link seal to it's original location near the surface of the concrete wall? This would be per the original design shown on A1-8712, Detail 4.

at the exterior side of the foundation wall penetration to prevent migration of water through the sleeves across the corridor.

T-0552 **BGP - CR T -069 Electrical Scope** **Closed** **05/14/2013** **05/28/2013** **05/29/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

SCCI is in receipt of CR T-069 regarding the below grade modifications. In the modifications, many of the mechanical, plumbing, and electrical rooms have been modified. In some cases, additional rooms had been added like that of the emergency electrical room. With theses changes, none of the electrical drawings pertaining to these rooms or additional rooms had been modified to account for these changes.

Please confirm that there will be no electrical changes other than grounding as a result of CR T-069.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The electrical scope is identified with clouds and deltas on the drawings. For future reference please include specific drawing sheets and issue information (Sheet E1-2022 - ASI#0102 dated 04/29/2013) as we are not familiar with the CR T-069 reference used in this RFI.

T-0553 **BGP - Examination of Substrate Clarification** **Closed** **05/14/2013** **05/28/2013** **05/23/2013** **Potentially** ☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference Specification Section 07 12 10- 3.1.A.

Specification Section 07 12 10 - 3.1.A states the following: "With manufacturer's representative present, examine surfaces to which insulation and waterproofing will be applied prior to beginning work."

Please confirm that this is in reference to CDSM wall and mudslab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

07 12 10 - 3.1.A is in reference to surfaces to which waterproofing is applied, including the CDSM wall and mudslab. The specification statement is clear and the question is superfluous.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0554	**BGP - Field Quality Control**	**Closed**	**05/14/2013**	**05/28/2013**	**05/25/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference Specifications Sections 07 12 10 - 3.3-3.5.

Specifications Section 07 12 10- 3.5.A states the following: "The manufacturer's field representative shall be present before and during installation as specified above."

Please confirm that this is in reference to Section 3.3 "Application" and Section 3.4 "Flashing" which are directly above Section 3.5, A on page 07 12 10-8 of the Specifications (attached for reference).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No. The specification is clear and the question is superfluous. "The manufacture's field representative shall be present before and during installation" (for surface examination, protection board installation, felt installation, drainage installation and other activates before the membrane is installed). Section 3.1 also requires the manufacturer's presence related to substrate examination.

T-0555	**BGP - Waterproofing Asphalt Cement Walnut Sized Gob Spacing**	**Closed**	**05/16/2013**	**05/26/2013**	**05/23/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Specification Section 07 12 10, 3.2, E states the following:

"Install two piles of asphalt saturated felts over the protection board in walnut sized gobs of asphalt cement sufficiently spaced to hold felts in place."

SCCI and Best have been informed that this layer is to act as the shear/slip plane for structural movement. Please provide the spacing requirements of the walnut sized gobs.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Follow the Waterproofing Manufacturer's installation instructions.

T-0556	**BGP - Waterproofing Asphalt Cement Diameter of Walnut Sized Gobs**	**Closed**	**05/16/2013**	**05/26/2013**	**05/20/2013**	**Potentially**	☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Specification Section 07 12 10, 3.2, E states the following:

"Install two piles of asphalt saturated felts over the protection board in walnut sized gobs of asphalt cement sufficiently spaced to hold felts in place."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The approximate diameter of a walnut sized gob is 3/4" min to 7/8" max.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please provide approximate diameter of walnut sized gobs (maximum/minimum will suffice).

T-0557 **BGP - Waterproofing Asphalt Cement with Laps in Felt Layers** **Closed** **05/16/2013** **05/26/2013** **05/21/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

In reference to Specification Section 07 12 10, 3.2, E, the specifications do not mention laps in felt layers needing to be fully sealed in asphalt cement. Please confirm that fully sealed laps are not required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The end laps are not to be sealed. Lap ends of felt layers in the direction of water flow.

T-0557.1 **BGP - Waterproofing Asphalt Cement with Laps in Felt Layers** **Closed** **05/31/2013** **06/10/2013** **06/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI #T-0557 response and Specifications Section 071210-3.2. RFI #T-0557 response confirms that end laps are not sealed, but does not address the side laps.

Please confirm that this applies to the side laps as well.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Do not seal any laps of the felt layers. Neither the end laps, the side laps nor any other laps are to be sealed.

T-0558 **BGP - Waterproofing Asphalt Cement at Protection Board Transitions** **Closed** **05/16/2013** **05/26/2013** **05/23/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

In discussions with the TJPA and Designers, the "gaps" where the 2' protection board meets 6" turnout at the base transition, shall be filled with asphalt cement. Is it acceptable to fill these "gaps" with asphalt cement?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a contractor's means and methods item

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0559	**BGP - ASI 102 Change Clarification at Elevator Pit Near GL 2-E 2**	**Closed**	**05/14/2013**	**05/28/2013**	**05/23/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref. Dwg. A1-2812, 1/A1-9214, 3/S1-3006

Revision 0 of A1-2812 previously contained dimensions for the elevator pit near gridlines 4-E.2; however, as a result of ASI 102 revision 1 of A1-2812 no longer contain the dimensions for the elevator pit and the referenced detail 1 of A1-9214 does not either. Please provide the dimensions of the elevator pit.

Also, detail 3 of S1-3006 indicates that there is a change in the thickened section of the elevator but it does not appear that there were any changes made. Please confirm if there are changes to the thickened section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The elevator dimensions have been revised and will be included in ASI 104. Please refer to the attached SKA 2709 (based on A1-9214) for revised dimensions.

Thornton Tomasetti response:

Detail 3 of S1-3006 is clouded because the pit depth and plan dimensions were revised in ASI 102. While the changes will require only minimal revision of the rebar lengths/bend locations/etc for rebar fabrication, and the structural intent of the rebar detailing remains unchanged, the mat depression region on 3/S1-3006 was clouded to alert the contractor to the need for these dimensional rebar detailing revisions due to the pit resizing. (We agree that on first glance there do not appear to be any revisions to the thickened section of the detail; the revisions are graphical only, and small enough that they are not noticeable except in an aligned overlay.)

T-0560	**BGP - Grade 60 ASTM A-615 Conforming Bar In-Lieu of ASTM A-706**	**Closed**	**05/16/2013**	**05/29/2013**	**05/29/2013**	**Potentially**	☐

From: Webcor Construction LP Ian Corcorran **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Ref. Dwg. RE-2/S-0007

Gerdau proposes to use Grade 60 ASTM A-615 bar in place of Grade 60 ASTM A-706 material in the locations defined within RE-2 on sheet S-0007 which include foundation walls, columns and moment frame beams. The Grade 60 ASTM A-615 bar shall conform to the strength properties published in the attached ASTM specifications.

This is not a request to replace all Grade 60 ASTM A-706 bars with Grade 60 ASTM-615. Is it acceptable to use ASTM-615 bars, when available, that would otherwise be wasted during the rebar fabrication process?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We will allow the use of A615 bars in lieu of A706 for inquired scope of elements provided that test data for the A615 bars meet ACI 318 section 21.2.5. Please submit test data that meets code requirements and identify where these bars will be used.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0561	BSE - Standard for Determining Buttress Concrete Strength	Closed	05/16/2013	05/26/2013	05/20/2013	Potentially	☐

From: Webcor Construction LP Kirk Nielsen **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec. section 31 63 29.3.9.D states,

"Not less than 28 days after concreting is completed, perform HQ coring over the full depth of 10% of the shafts to verify the quality of concrete and test whether the shafts are free of defects. Provide these cores for inspection by the TJPA Representative. The TJPA's Representative will select the locations where coring shall be performed and will select the cores which will be tested for strength."

The aforementioned language in addition to spec. section 31 63 29.1.6.A which states:

"Perform work in accordance with ACI 301, except where otherwise specified. Specifications herein set minimum results required and references to procedures to establish minimum guidelines."

reads as if ACI 301 would be the specified standard for determining the required buttress concrete strength (specifically ACI 301 section 1.6.6.2) hence acceptance.

Please confirm what if not ACI 301 is the standard for determining the buttress concrete strength hence acceptance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ACI 301 is the standard.

T-0562	BGP Stair 403 Embed Conflict	Closed	05/17/2013	05/27/2013	05/24/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Reference Drawings: S1-7011, SI -7600, S1-7602, and sketch SK-194.

Detail 3 on S1-7011 has a callout for 11/S1-7600 and 8/S1-7602. Both of these angles are embedded in the top edge ofthe stair opening. The locations of embeds overlap at the Northeast and Southeast portions of the opening. See SK-194 for details. The 8" legs of the angles are to be on different surfaces of the concrete causing future stair

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 8/S1-7602 has been revised to be an L8x8x1/2 angle. This change will be issued in a forthcoming ASI. Additional angle shown on 11/S1-7600 is not required.

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installation issues.

Please provide details on how to proceed.

T-0562.1 **BGP - Stair 403 Embed Conflict** **Closed** **08/13/2013** **08/23/2013** **08/21/2013** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

1) Please reference RFI response T-0562. Please confirm the 7' -6" long embed per detail 8 on S I -7602 starts from the western edge of the opening, as shown in the attached sketch.

2) Also, please clarify embedded angle conflicts highlighled on attached sketch, where embed as shown on detail 11, S1-7600 and embed as shown on detail 8, S1-7602 are specified to be installed at the same location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
8/20/2013
RESPONSE:

1. 7'-6" long applies to stair 501 only (shown on 6/S1-7016). At stair 403, the L8x8 angle shall run the full length of the stair opening.

2. Where L8x8x1/2 is provide per 8/S1-8602, the L8x4x1/2 x 1'2" long and (2) ¾" welded studs shall be deleted. The 3" pipe is welded directly to the L8x8x1/2 angle.

T-0563 **BGP - Use of Laurenco Adhesive and Temporary Fasteners as Alternative for Insul** **Closed** **05/20/2013** **05/20/2013** **05/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Specification Section: 071210 3.2 G

In reference to Specification Section 07 12 10, 3.2, G, "Install insulation with long dimension horizontally. Secure with insulation manufacturer's recommended adhesive."

The EPS insulation manufacturer recommends the use of ADCO Millenium One Step Foamable Adhesive for this vertical application. The waterproofing membrane manufacturer has indicated that they will not provide a warranty for their system unless the adhesive has been

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Specification Section 07 12 10, 1.4, E, 1: the manufacturer is to supply certificates stating that materials in the system are physically and chemically compatible. This specification statement is clear and question parts 1 & 2 are superfluous; all component manufacturers will need to comply with this section of the specification. The alternative method of installation in part 3 is not acceptable without such certifications and additional fasteners, even temporary are not acceptable.

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tested in the same application. Please confirm the following is acceptable:

1. The testing data is required for the manufacturer's recommended adhesive for EPS insulation installation.

2. Laurenco must approve of the use of every component in the system (protection board layer to insulation layer) even though it is called out to follow the insulation manufacturer's recommendation per the specifications.

3. As an alternative to the specification requirements, the Laurenco adhesive (with temporary fasteners and washers) is to be used for the insulation installation, until the insulation manufacturer's recommended adhesive (ADCO) is tested and submitted. Once the manufacturer's recommended adhesive (ADCO) is approved, the ADCO adhesive will be used for the insulation installation in place of the laurenco adhesive.

Please confirm this is acceptable.

T-0564 **BGP - Water Treatment for Geothermal** **Closed** **05/21/2013** **05/31/2013** **06/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification 23 57 34 Sub Section 3.4

During the TG06 IFB process section 3.4 was added to the Ground Loop Heat Exchanger specifications. We believe this requirement is intended for a future bid package during the commissioning of the system. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The water treatment scope of work issued in mechanical specification section 23 57 34-3.4 for the ground loop system is intended to be part of the Below Grade Package bid. However, this specific scope of work could be deferred and bid out with the remainder of the water treatment work for the project in the Main Building Package. Turner/TJPA to provide final direction on scope allocation between different trade packages.

Jeff Thiel:
Geothermal water treatment may be deferred until water treatment of the building condenser water piping system, to which the ground loop heat exchanger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

piping will be connected to in a future scope of work, takes place. CM/GC to leave geothermal system as described in specification section 23 57 34, 3.2.J until treatment takes place.

T-0565 **BGP - Waterstop Injection Hose Boxes** **Closed** **05/22/2013** **06/01/2013** **05/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference attached drawing A1-8711. Please confirm all Waterstop Injection Hose Boxes in the Mat Slab are to be mounted as illustrated in the attached drawing (flush@ -35' -8"). With the installation of a future topping slab, mounting these boxes at Mat Slab elevation may render the injection hose system inaccessible at that time.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Design Team confirms that that Waterstop Injection Hose Boxes in the Mat Slab are to be mounted flush at -35'-8". The rail bed system (by others), which will not be determined until a future time, will need to make provisions for access to these boxes.

T-0566 **BSE - Zone 2 A-Line CDSM Embedded Metal Part at Soldier Pile 96** **Closed** **05/22/2013** **06/01/2013** **05/24/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Dean Wallahan

REQUEST:

Ref: BIM 360 - Field Condition Report (FCR) 000013
Specification Section 31 56 13

Per FCR 000013: "An Embedded Metal part is visible in the CDSM wall between Solder Piles 96 & 97. A Corrective Action Plan must be submitted to remove the object and repair the CDSM wall. Spec 31 56 13." Please see attached BBII proposed Corrective Action Plan.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Acceptable

T-0567 **BGP - Fire Management System** **Closed** **05/23/2013** **06/02/2013** **06/03/2013** **Potentially** ☐

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Ref: 5/E1-6001, E1-2202, E-0006

Per Plan Sheet E1-6001 , Detail 5. (attached) the embedded conduits for the fire managment system do not extend above or into the lower concourse floor slab. Additionally, on Plan Sheet E1-2202 for the lower concourse level, Sheet Note A (attached) states that the "scope of work on this sheet is limited only to grounding electrode conductors embedded in slab and main grounding bus (MGB) in the main electrical room." From these two notes, it is clear that the fire alarm system scope is limited to the train platfonn level.

However, on Plan Sheet E-0006 (attached) General Note R., "For fire alarm devices, provide embedded boxes, conduit, and pull strings in the lower concourse slab for service to fire alarm devices for both levels".

Please proved direction as to whether or not the fire alarm system conduit is to be installed in the lower concourse level slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The referenced detail is limited to the conduits for devices that are mounted on walls or columns at the Train Platform level. Refer to Sheet E-0006, Note R, for the requirements for the fire alarm raceways and boxes to be embedded in the Lower Concourse slab.

T-0568 **BGP - Monitoring Instrument Sleeves Detail** **Closed** **05/23/2013** **06/02/2013** **05/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawings: 3/A1-8711, 4/S1-3009

Detail 4 on Sl-3009 does not apply to the monitoring instrument sleeves shown on A1-8711. The sleeves are continuous through the Mat Slab, and thus do not require a blockout.

Please provide a typical mat slab rebar detail that is applicab le to the monitoring instrument sleeves referenced herein.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As the contractor notes in this RFI, the blockout in the top region of the mat slab per 4/S1-3009 is not required at monitoring instrument sleeves. Contractor shall apply the rebar detailing of detail 7/S1-3009 to both the top and bottom of the mat at these sleeves.

T-0569 **BGP - Reinforced Concrete Wall Clarification** **Closed** **05/23/2013** **06/02/2013** **05/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Drawing: A1-2122

Per the note on A1-2122, walls called out as "RCW" are reference drawings and not in TG06's scope of work. "RCW" walls are generally illustrated with dotted lines; however, when referencing the walls for the elevator pit and stairs near gridline 2E, the walls are called out as "RCW" but also illustrated with solid lines. Please confirm which walls are part of the TG06 package and which are RCW. Also, please confirm if the entire South wall of the fuel tank room is supposed to be "RCW" or if it is just the wall section as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The walls at the elevator pit and stairs near gridline 2,E are part of the TG06 package. The entire south wall of the fuel tank room is also part of the TG06 package. The referenced enlarged detail 1/A1-9214 shows the solid walls without the RCW annotation. The RCW annotation has been removed from these particular walls on drawing A1-2122 and is included ASI 104.

T-0570 **BGP - Underside of Beam Embed Conflict** **Closed** **05/24/2013** **06/03/2013** **06/03/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

Ref: S1-7011, S1-7900/Detail 9, S1-9100/Detail 2, Attached SK-0201

Please see attached Contract Drawing S1-7011 and Sketch SK-0201 . Stair opening 403 has stair post plates embedded on the underside of the concrete beams. See S1-7600/D9 for details. The underside of the concourse slab also contains continuous concrete inserts. See S1 - 9100/D2 for details and A1-2844 for locations. The two embeds overlap on the underside of the beams on the north and south sides of stair opening 403. See SK-0201 for drawing of conflicting embeds. This also occurs on the south side of stair opening 501.

Please provide details on how to install the two conflicting embeds on the underside of the concourse.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The continuous concrete insert in this RFI does not conflict with detail 9/S1-7600. The continuous concrete insert embed locations have been updated. Please see attached SKA 2713 to SKA 2717 for updated Continuous Concrete Insert layout on Lower Concourse Slab Edge Plans.

T-0571 **BGP - New Waterproofing Install Instructions (Additional Adhesive)** **Closed** **05/28/2013** **06/07/2013** **05/31/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Specifications Section 071210

We are in receipt of Laurenco Waterproofing Products, Inc.'s Installation Instructions revision dated 5/15/13 and have found several discrepancies with what is called out in Specifications Section 071210. Section 8, f, iv, 4, (d), vi calls for an additional layer of adhesive on walls prior to concrete. It calls for a coat of Laurenco Adhesive over COMPLETED membrane and cold joint reinforcement applied after wall ply adhesive has cured at least (3) days and (1) to (3) days in advance of reinforcement steel application for walls. This is added scope as this additional layer is to be applied over the completed membrane and is not called out in the Specifications.

Please confirm that SCCI is to use the manufacturers installation instructions

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor is to follow specification section 07-12-10 Modified Bitumen waterproofing (WPM-1) where the Manufacturer involvement is specified.

Questions on the proper installation of the system are to be directed to the waterproofing membrane manufacturer. Questions on the detailed installation procedure (Waterproofing Install Instructions) should be directed to Laurenco, not to the TJPA Reps via RFI.

T-0572 **BGP - New Waterproofing Install Instructions (3 day Cure)** **Closed** **05/29/2013** **06/08/2013** **05/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specifications: 071210

We are in reciept of Laurenco Waterproofing Products, Inc.'s Installation Instructions revision dated 5/15/13 and have found several discrepancies with what is called out in Specifications Section 071210. Section 8, f, iv, 5, (d), v calls for a minimum (3) days wait for top ply to firmly adhere before starting the rest of flashing details and placing concrete topping slab. This is not called out in the specifications and may significantly impact the project schedule.

Please confirm that SCCI is to use manufacturers installation instructions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor is to follow specification section 07-12-10 Modified Bitumen waterproofing (WPM-1) where the Manufacturer involvement is specified.

Questions on the proper installation of the system are to be directed to the waterproofing membrane manufacturer. Questions on the detailed installation procedure (Waterproofing Install Instructions) should be directed to Laurenco, not to the TJPA Reps via RFI.

T-0573 **BGP - Locations of Electrical Outlets, Equipment, and Fixtures** **Closed** **05/29/2013** **06/08/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Specification 26 05 34, 3.2 B.

The exact locations of the electrical equipment are to be provided by the TJPA through the RFI process. With the electrical equipment provided and installed at a later date under a separate contract, please provide the dimensions of the electrical equipment, boxes, and cabinets to allow for accurate electrical riser locations in the concrete slabs. The equipment, boxes, and cabinet dimensions in Zone 1, Area 1 are needed first with the areas to the east to follow.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSP Response: To address the specific information that is being requested, please identify which "equipment" is not sufficiently located in the drawings and requires clarification. Sheet E1-0006 notes specific requirements for coordinating the location of equipment and connections. Details on sheets E1-6001 and E1-6006 provide additional location requirements. Wireways have been indicated to position the conduits stubbing out of the slabs in the electrical rooms. Plans locate the embedded light fixture box layouts. Specifications 260502.3.4 require coordination of the work and contractor's coordination shop drawing layouts for review of the electrical room layouts.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0574	**BGP - Field Galvanizing of Mat Slab Sleeve Penetrations**	**Closed**	**05/31/2013**	**06/10/2013**	**06/09/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc John Berggren

REQUEST:

Reference Specification Section 05 05 15-3.3.B

The shop applied coating thickness for the pin and trestle pile sleeve fabrications is determined to be 3.9 mils per Table 2 in ASTM A 123. Under Section 05 05 15-3.5 the repair/restoration field-applied coating thickness is specified to be 8.0 mils. For field touch-up of damaged areas Section 05 50 10-3.2.D states to apply a thickness of 2.5 to 3.5 mils. For the coating hold back areas for the sleeve field weld joints and for any damage coatings that may arise during installation - is a uniform required mimimum field-applied thickness of 3.9 mils acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The question asks for clarification of the galvanizing coating repair thickness required for a specific location and for specific repair or touchup. The location noted in the question is not clear enough to answer the question. Resubmit the question with a more specific location noted. "Sleeve field weld joints and for any damage coating that may arise during installation" is too vague. Also, clarify if you are asking about field repair or field touchup of damaged zinc coatings.

The 8.0 mil repair thickness specified in section 05 05 15 applies to repair/restoration on most items as specified in 05 05 15 / 1.1.A: "zinc galvanic coatings applied in the shop or factory to surfaces of iron and steel installed at exterior locations and either totally or partially exposed to weather, humidity, moisture or precipitation; and elsewhere as indicated and specified." Specification Section 05 50 10 / 2.6 call for Hot Dip Galvanizing per specification section 05 05 15. Specification 05 50 10 / 3.2D applies to field

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

touchup of damaged zinc coatings at areas covered by specification 05 50 10.

T-0575 **BSE - Micropile Relocation - E038 (Overhead Obstructions)** **Closed** **06/03/2013** **06/13/2013** **08/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Lynn Kowallis

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference : Attached Sketch

Micropile E038 as laid out cannot be installed due to an overhead strut obstruction. BBII recommends relocating E038 east 1. .

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Void RFI T-0575 and Ref to RFI T-0575.1

T-0575.1 **BSE - Micropile Relocation - E038 (Overhead Obstructions) Revised** **Closed** **06/04/2013** **06/14/2013** **06/08/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference : Attached Sketch

This RFI supersedes RFI 375.
Micropile E038 as laid out cannot be installed due to an overhead strut obstruction. BBII now recommends relocating E038 east 3'4" to be in line with E037 and E039. See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropile E038 as proposed.

T-0576 **Wall Alignment on Westside of Zone 1** **Closed** **05/31/2013** **06/10/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Webcor is proposing to change the alignment of the Concrete Foundation wall on the west elevation along gridlines 1 & X1-1.

The Concrete wall which runs along gridline 1 would be offset into the structure by 0.2656' (3-1/8") (proposed Face of concrete Foundation wall would now be 15-1/8" of gridline 1). Similarly along gridline X1-1 the wall would also be offset into the structure by 0.1575' (1 7/8") these offsets would enable the contract reinforcement to be installed without the need for further modifications to the reinforcement due to encroachment of the CDSM piles.

See sketch SK-1 showing Cross section of concrete Foundation wall between CDSM piles 818 - 822 GL 1 in proposed revised location.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the pile encroachments at the Zone 1 West and South West CDSM walls, as described and illustrated in this RFI, the Design Team confirms it is acceptable to offset the alignment of the inside face of the Concrete Foundation Walls as the contractor proposes in RFI T-0576 BGP.

T-0577 **BGP - Internal Wall Discrepancies 002** **Closed** **06/03/2013** **06/13/2013** **06/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Drawing: B/A1-9217

Referenced detail shows mechanical opening at the GL C.3 being in conflict with the future tank lid (Not in TG06 package).
Please confirm that this opening is to be constructed as called out on B/A1-9217.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no conflict with the future tank lid. The Mechanical Opening at GL C.3 is located above the door on the service corridor wall and is more than 18' in front of the tank. Please read the concrete wall elevations in conjunction with the plan on A1-9215.

T-0578 **BGP - Micropile Relocation - W916 (Timber Pile Obstruction)** **Closed** **06/03/2013** **06/13/2013** **06/19/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference Drawing: attached.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Micropile W916 encountered a timber pile during installation. It was moved in the field and installed 1' west of plan location. This does not appear to impact geothermal piping.

Please confirm this is acceptable.

micropile W916 as proposed.

T-0579 **BGP - Cross-tie Wall Reinforcing, Grade Conversion and Spacing Change** **Closed** **06/04/2013** **06/14/2013** **06/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Drawings: S1-3201
Reference Specification: 03 30 20

Based on a recently constructed mock-up of the 1st lift of typical wall reinforcing a potential problem with congestion has been identified. The contract drawings on sheet S1-3201 depict the typical wall reinforcing details include #8 horizontal wall reinforcing at 8" O.C. E.F. typical. Additionally, the #4 cross-tie spacing has been designed at either 6" O.C. or 12" O.C depending on the location (elevation) within the wall. With the non-uniform spacing of the cross-ties and horizontal bars, the cross-ties are secured only to the vertical bars and have the potential during concrete placement to shift or slide down the vertical bars until resting on the next adjacent horizontal bar. The inconsistent spacing of the cross-ties and horizontal bars congests the reinforcing configuration which may lead to potential problems when interfacing the concourse level reinforcing with the walls. In order to eliminate these potential problems Gerdau proposes to perform a grade 80 conversion of the cross-ties such that the size of the cross-tie remains as a #4 bar but the spacing of the cross-ties are installed with uniform spacing to the horizontal reinforcing at 8" O.C. within the designed 6" O.C. ranges or 16" O.C. within the designed 12" O.C. ranges.

Please advise if this grade and spacing change is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed modification to the spacing of the foundation wall cross-ties is not acceptable due to two reasons:

1) Per ACI 318, assumed yield strength for transverse reinforcement cannot exceed 60 ksi.

2) In zones where foundation wall cross-ties are spaced at 6"; the proposed change to 8" spacing violates the spacing requirements for transverse reinforcement of flexural members in ACI 318-11."

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0579.1	**BGP - Horizontal Wall Reinforcing Equal Area Conversion**	**Closed**	**06/19/2013**	**06/29/2013**	**06/20/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: S1-3201, Spec Section 03 30 20

Gerdau (SCCI's subcontractor) has recently constructed a mock-up of the 1st lift of typical wall reinforcing and identified a potential problem with congestion and quality of the final designed product. The contract drawings on sheet S1-3201 depict the typical wall reinforcing details including #8 horizontal wall reinforcing which is designed at 8" O.C. E.F. Typical. Additionally, the #4 cross tie spacing has been designed at either 6" O.C. or 12" O.C depending on the location (elevation) within the wall. With the non-uniform spacing of the cross-ties and horizontal bars the cross-ties are secured only to the vertical bars and have the potential during concrete placement to shift or slide down the vertical bars until resting on the next adjacent horizontal bar. Additionally, the inconsistent spacing of the cross-ties and horizontal bars congests the reinforcing configuration which may lead to potential problems when interfacing the concourse level reinforcing with the walls. Gerdau would like to propose an equal area conversion for the horizontal reinforcing from #8 @ 8" OC to #7 @ 6" OC in order to make the spacing between the horizontal bars and cross-ties uniform. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT does not see slippage of the cross-ties will be a concern if they are properly tied, and we don't see reducing the spacing of the horizontal bar from 8" to 6" will help the congestion issue raised. However, we don't take exception to the proposed change as long as it does not affect the cost and schedule.

T-0580	**BGP - Type 2 Coupler at Outside Vertical 4th Lift**	**Closed**	**06/04/2013**	**06/14/2013**	**06/08/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Reference Sketch: attached.

Please confirm it's acceptable to incorporate an approved Type 2 coupler on the outside face #11 vertical bar in the same plane as the contract coupler in the fourth wall lift just above the final horizontal wall construction joint.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to incorporate an approved Type 2 coupler on the outside face of foundation wall as proposed.

T-0581	**BGP - Internal Walls Discrepancies 001**	**Closed**	**06/04/2013**	**06/14/2013**	**06/07/2013**	**Potentially**	☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Ref: A1-9215, A1-9216, A1-9217

Reference attached sketch and CD A1-9215, A1-9216, and A1-9217. Revision 1 of the noted drawings, dated 4/28/2013 , were used to generate this RFI. Elevation views, Detail A on noted CDs A1-9216 and A1-9217 depict discrepant details of the interior wall penetrations between GL 3 and 4.75.

Please provide drawings with consistent details.
If not able to provide such drawings, please specify which drawing details take precedence.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to attached SKA-2733 (based on A1-9216 rev 1) and SKA-2734 (based on A1-9217 rev 1) for updated MEP openings on wall elevations.

T-0582 **BGP - Use of Laurenco Adhesive and Temporary Fasteners as Alternative** **Closed** **06/05/2013** **06/15/2013** **06/14/2013** **Potentially** ☐

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Ref: RFI #T-0563 and Submittal #TG0600-024

Please reference the response to RFI #T -0563 and Submittal #TG0600-024. The response to Part 3 of the RFI is unclear. Is it the designer's intent to deem temporary fasteners unacceptable with or without the certifications? Or are the temporary fasteners acceptable with the certifications?

Please clarify.

Please note, the certifications were submitted and approved on 2/11/13 as part of Submittal Package #TG0600-024.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The use of temporary fasteners are acceptable provided that the contractor and membrane manufacturer verify that their use does not restrict the design concept which is to maintain a shear plane.

T-0583 **BGP - BBII Monitoring Instruments/Piezometers** **Closed** **06/06/2013** **06/06/2013** **06/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawings: 6/A1-8711, 3/A1-8711

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The dewatering wells shall be capped and sealed in

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Per coordination discussions with WOJV (email attached), SCCI is to install BBII Piezometer sleeves per Detail 6 of A 1-8711. In this detail, the sleeve is to be blocked out of the Mat Slab and poured back at a later date contrary to the piezometer/monitoring instrument detail 3 on A1-8711. Is it acceptable to eliminate the blockout portion of detail 3/ A 1-8711 and pour the BBII piezometers into the mat slab?
The ARUP piezometers will remain operational (per Detail 3/ Al-8711) after the mat slab has been poured to monitor the water table levels.

accordance with detail 6/A1-8711. The timing to decommission the dewatering wells is stated in the specifications and the structural drawings.

The piezometers installed by Arup shall be protected as they will be used until further notice. Refer to detail 3/A1-8711 for detail at the mat slab.

If BBI installed piezometers, these will be sleeved and waterproofed in accordance with detail 3/A1-8711 and shall be decommissioned when directed by BBI.

T-0583.1 **BGP - Dewatering / Piezometer Clarification** **Closed** **07/11/2013** **07/11/2013** **07/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI T-0583, RFI T-0602
Reference Drawing: A1-8711

In follow up to a phone conversation with George Metzger, detail 3/A1-8711 is to be used for all permanent instruments. Since the piezometers installed by BBII will be removed when the dewatering system is turned off, please confirm which waterproofing detail should be used.

Also, please confirm if any of Arup's instruments will not be permanent. If they are not permanent, please confirm which waterproofing detail should be used.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As indicated in the previous RFI regarding this subject, it is acceptable to use detail 6/A1-8711 for the BBII piezometers, since they will be decommissioned, capped and infilled when the dewatering system is turned off.

Detail 3/A1-8711 is to be used for the Arup piezometers and extensometers, as these will be used for one year after the dewatering system is decommissioned.

T-0584 **BGP - Dewatering Well and Concrete Wall Conflict** **Closed** **06/05/2013** **06/15/2013** **06/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Andy Khuu

REQUEST:

Please reference the attached drawings S 103.0 and S 104.0 from SCCI's Rev it model. Based on BBII's latest

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The shear wall and the concrete partition walls cannot be moved.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

as-built AutoCAD file ("20 13-05-01 BBII Dewatering Well Coordinates.dwg") and SCCI field measurements, it appears that de-watering wells #1, #3, #21 and #22 conflict with the concrete partition walls and shear wall.

Additional information below:

1. BBIIs dewatering well layout submittal was approved MCN 5/10/2011

2. Dewatering wells in conflict rough installation dates:
   Dewatering Well # 1 - 1/18/2012
   Dewatering Well # 3 - 1/19/2012
   Dewatering Well # 21 - 1/24/2012
   Dewatering Well # 22 - 1/23/2012

3. A1-2122 was issued for construction 8-30-2012 placing concrete walls in conflict with previously approved and installed dewatering wells.

Can these walls be blocked out at these locations? Can these walls be moved? Will the dewatering wells need to be relocated (diffiicult as the mud slab has been already poured in these locations)? Please advise as to how to proceed.

Dewatering wells at partition walls in this RFI may be blocked out.

The structural shearwall at dewatering well #3 was reflected in TG0600 BGP documents before dewatering installation which should have been coordinated between packages by the Contractor. Contractor has the option to move dewatering well #3 or provide a block-out (take special notice of note 3 below).

The following comments apply for block-outs:

1. Refer to General Note GR-9 on S-0005 for additional block-out information.

2. Contractor to propose/incorporate block-out reinforcement into shop drawings for review and approval.

3. Note that the shearwall at dewatering well #3 provides lateral stability for the west end wall when the cross-lot bracing is removed. The re-bracing will need to be re-designed to relieve the load off of the blocked-out shearwall and submitted for review.

T-0584.1 **BSE - Abandoning Dewatering Well #3 at Shearwall** **Closed** **07/25/2013** **08/04/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI: T-0584
Reference SK-001 and SK-002

BBI is proposing to abandon the dewatering well #3 at the mudslab level. This will mitigate the impact of shear wall dowels and penetration sleeve in the vicinity of the mat slab penetration created by dewatering well #3, in lieu of creating a blockout in the shear wall and designing rebracing to address structural concerns.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to abandon dewatering well #3, however the Design Team is concerned that the contractor's proposed solution, to cut off the plugged well flush with the top of the mud slab, may expose the underside of the waterproof membrane to potential damage due to differential movement. All of the mat slab penetration sleeve details were developed as mitigation in case potential movement occurs e.g. buoyancy movement.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

BBI has discussed this with Viking Drillers and have confirmed they can abandon this well. BBI is proposing to cut the pvc casing flush with the top of mudslab, drill and epoxy #4 bars 2" down from top of casing with 3" embedment. The bars will be installed in the north, south, east, and west face through the casing and are installed to better ensure the dewatering well cement plug does not upheave. They will use Type II Portland Cement with a 5% bentonite content. Waterproofing will then be installed over the dewatering well, lapping as necessary to the adjacent waterproofing.

Please confirm that this is acceptable.

The Design Team proposes that the mud slab is to be broken out sufficiently to allow a 4" excavation below the underside of the mud slab. The dewatering well cut off and filled. Compressible material : 4" of Styrofoam installed into the excavation and over the plugged dewatering well. Then the opening in mud slab is to be repaired with reinforced concrete infill.

Note that BBII is still solely responsible for maintaining the dewatering.

T-0584.2 **BGP - Dewatering Well & Concrete Partition Conflict** **Closed** **07/30/2013** **08/09/2013** **08/08/2013** **Potentially** ☐

From: Webcor Construction LP Ryan Burke **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: RFI T-0584, Attached sketch

Please refer to RFI 584 and the attached sketch of the proposed block out in concrete partition walls as referenced in RFI 584. The 28" x 28" blockout in the mat slab will be transferred to the blockout of the wall and be 25" from the mat slab elevation to the top of blockout. This will create 3'-0" from top of penetration sleeve to top of wall blockout. We are proposing to use formsavers and the male ends will extend the length of the blockout.

Please confirm this is acceptable or provide acceptable solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed block-out for the dewatering well & concrete partition conflicts is acceptable provided the following:

1. Confirm the vertical bar size for max height partition at these locations.

2. Extend the vertical bars in the block-out a min 4" into the top of mat.

T-0585 **BGP - Mass Concrete Specifications** **Closed** **06/05/2013** **06/05/2013** **06/13/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Specifications Section: 03 30 20 3.5 & 3.11
Reference attached letter from CTL Group

SCCI is asking for variance to the temperature differential requirements for the mat slab concrete. If granted, this variance would be based on performance based temperature differential limit (PBTDL), which is tailored to both the Project's mass concrete mix design and the placement. Refer to the attached letter from CTL.
The intent of this PBTDL is to prevent thermal cracking, and at the same time reduce duration of the thermal control requirement.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to use the contractor-proposed performance-based temperature differential limit approach for spec section 3.11.B provided the following:

1. This approach shall be approved mix-specific.

3. The maximum temperature of 3.11.B as well as remaining mass concrete specification requirements shall still apply.

4. CTL shall provide the required measurements as well as field quality control.

4. Contractor shall still remain responsible for providing a mat foundation that meets requirements of the contract documents.

T-0586	BGP - Fire Management System and Concourse Slab Electrical Scope	Closed	06/05/2013	06/05/2013	06/17/2013	Potentially ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Reference Drawing: E-0006, E-0000, 6/E-2202
Reference RFI: T-0567

Per the response to RFI T-567, the fire management system conduit is to be installed into the concourse slab per Note on Sheet E-0006 . However, per Plan Sheet E-0000, only a small grounding portion of electrical drawings are in the TG06.0 concourse slab scope. The remaining concourse level electrical drawings are "For Reference Only" and for informational purposes only. Please confirm that the only TG06.0 electrical scopes in the concourse slab are the grounding wire extensions from the mud slab (per Detail 6/E 2202-TG06.2 scope), lighting conduit and boxes for Type "F15" and Exit Signs, and 4" 90 degree elbows per Details 1 & 2 on TE 1-8000. Please confirm that outside of those scopes, all other electrical scopes of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSPFK Response: Per sheet note J on Sheet E1-006, the scope for TG06.0 shall include fire alarm system conduits embedded in the Lower Concourse slab that are required to serve fire alarm equipment that is located at the Train Platform level. Note that conduits for fire alarm devices on the Lower Concourse level will be provided under a separate scope package.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

work in the concourse slab are to be part of a later electrical scope package as indicated on the E-0000 index and the "for information only" plans.

T-0586.1 **BGP - Fire Management System in the Concourse Slab Only** **Closed** **07/12/2013** **07/22/2013** **07/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Per the response to RFI T-567 (attached), please confirm that the only slab with embedded fire system conduit is the concourse slab. All stub ups or risers will either come up out of the concourse slab for the concourse level fire management system or drop down out of the concourse slab for the fire management system on the train platform level.
Please confirm that the fire management system is not embedded in the mat slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI gets into contractors' means and methods. The contractor can route the fire alarm conduit embedded in either the Lower Concourse slab or the Foundation Mat Slab as required to provide connectivity to the fire alarm devices shown on the electrical drawings.

T-0587 **BGP - Future Train Platform Wall Reinforcing Size and Spacing** **Closed** **06/05/2013** **06/15/2013** **06/16/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI:T-0480

The contractor is to construct the future train platform walls using the thickness of the wall as called out within the specific zone sheet (1'-0" or 1'-2"). When coordinating the wall thickness called out in the Plan with Detail 5 on S1-3205 Future Wall Detail no specific bar size or spacing is called out for the 1'-2" thick walls. Please confirm if the reinforcing required for the 1'-2" walls is the same as that called out for a 12" wall, #6 @ 8" oc.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, the dowels for future train platform room walls that are 1'-2" thick are #6@8"OC each face.

T-0588 **BGP - Future Partition Wall Dowel Size Spacing** **Closed** **06/06/2013** **06/06/2013** **06/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Contract drawing S1-2052 depicts 12" Partition Walls and 12" Future Partition Walls. Contract drawing S 1-9050 provides the reinforcing details for the Partition Walls which depict #7 @ 12" OC reinforcing dowels for a 12" wall. Per S 1-3205 Future 12" Walls receive #6 @8" OC reinforcing dowels. Please confirm the proper bar size for the Future Partition Wall dowels.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Future 12 thk conc wall partitions" shall be reinforced per S1-9050 as they are labeled as partition walls. Detail 5/S1-3205 is for future walls within the train platforms.

T-0589 **BGP - Epoxy Coating Thickness Over Formsaver Couplers** **Closed** **06/06/2013** **06/16/2013** **06/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: 6/S1-3001, Attached Letter

The response to RFI T 0515 confirmed to coat the form saver couplers for future construction as specified in ASTM A 775. Per ASTM A 775, the standard coating thickness specifies a required thickness range by which different size bars are to be coated 7 to 12 mills for bar sizes 3 to 5 and 7 to 16 mills for bar sizes 6 to 18; however, detail 6 on S1-3001 indicates a 12 mill minimum coating thickness over the couplers. Per the attached letter from Stanley Johnson the Regional Manager for Erico (Lenton) the epoxy coated form-saver couplers specified for use cannot be procured with a guaranteed 12 mill coating but rather an epoxy coating that meets the requirements of the ASTM A 775 standard. Please confirm that supplying an epoxy coated form-saver coupler that meets the ASTM A 775 standard but may contain a mill thickness less than 12 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We understand that the epoxy-coated form-saver couplers supplied by Lenton may contain a mill thickness less than 12 while still complying with ASTM A 775 and consider this acceptable.

T-0590 **BGP - Mechanical Room Plumbing Clarifications 002** **Closed** **06/06/2013** **06/16/2013** **06/12/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Drawing, P1-2022, Spec Section 22 13 01

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See the WSP/MDS comments on the attached document.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference attached mechanical room layout drawing P-112. Per the marked up referenced drawing please clarify or provide following:
1. Invert elevations of the piping connecting the sumps.
2. Verify dimensions of the pipes spacing and offsets, per attachment.
3. Size and locations of the equipment pad.

T-0591 **BGP - Mechanical Room Plumbing Clarifications 001** **Closed** **06/06/2013** **06/06/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Drawing, P1-2022, Spec Section 22 13 01

Reference attached drainage layout drawing P-110. Please verify marked up dimensions for the pipe spacing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The dimensions for pipe spacing are acceptable.

Comments:

1. The "1/2 SAN" shown for the floor sink to be corrected to show 1/2" trap primer.

2. All vent connections to horizontal drainage pipe shall have their inverts taken off above the drainage pipe center line downstream of the trap being vented (CPC 505.2). Generally, this is accomplished by rolling-up the wye fitting.

T-0592 **BGP - Mechanical Room Plumbing Clarifications 003** **Closed** **06/06/2013** **06/16/2013** **06/12/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Drawing, P1-2022, Spec Section 22 13 01

Reference attached drainage drawing P-113. Please verify marked up dimensions for pipes spacing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the stairs 202 and 203 there are only (2) drain and vent piping connections. (1) 6" sprinkler drain and (1) 3" vent (refer also detail 3/P1-6001). The 6" sprinkler drain to be located with the center line 12" from the face of the column (or wall for stair 203) and then 12"

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

to the 3" vent. Also, all vent connections to horizontal drainage pipe shall have their inverts taken off above the drainage pipe center line downstream of the trap being vented (CPC 505.2). Generally, this is accomplished by rolling-up the wye fitting.

T-0593 **BGP - Concrete Clear Cover of Reinforcing Support Bars** **Closed** **06/06/2013** **06/16/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing 5/S1-3001, Spec Section 03 30 20

Gerdau would like to confirm that non-contract reinforcing support (carry) bars are to maintain the required concrete clear cover as specified in detail 5 on S 1-3001 and not encroach upon the designated clear cover limits. See the attached sketch for reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the clear covers for carry bars shall achieve at minimum the clear cover requirements of 5/S1-3001.

We note that for concrete cast against waterproofing (which is the condition at the bottom of the mat) the required clear cover per 5/S1-3001 is 2" for #6 or larger bars, and 1.5" for #5 and smaller bars, unless otherwise noted. While the clear cover to bottom typical continuous bars is to be 3" per Mat Bottom Rebar Note 7 on S1-2022, the smaller clear cover of 5/S1-3001 is appropriate to use as a minimum clear cover for carry bars, provided that in doing so the 3" clear to typical continuous bottom bars per Mat Bottom Rebar Note 7 on S1-2022 is still achieved.

T-0594 **SSS - Pendulum Bearing Specification** **Closed** **06/07/2013** **06/17/2013** **06/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Specification: 03 20 02 2.6

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Verify these bearings are within the scope of the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Spec Section 03 20 02 was issued to W/O on 4/26/13 as part of the TG07.1 IFB set dated 2/19/13 to be issued to existing W/O subcontractors for construction. 03 20 02 2.6 includes Pendulum Bearings . Please provide drawings and details depicting the location and quantity of Pendulum Bearings required.

Please also confirm any placement and attachment details for pendulum bearings and structure.

Structural Steel Superstructure Package. They are located at Gridlines 34 and 35, used between two concrete members.

2) Location of Pendulum Bearings is provided in Detail 2/S1-3302. Detail 2/S1-3302 is associated with three column types; C9, C10 and C11 (refer to Column Schedule). Performance requirements are provided in Section 2.6 of Specification 03 20 02. Also see Sections 1.3, 1.4, 3.2 of the same Specification for other requirements on pendulum bearings. Attachment details are per manufacturer's recommendations.

T-0595 **Geothermal Piping Under Construction Personnel Hoist Concrete Pad** **Closed** **06/10/2013** **06/20/2013** **06/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Attached Drawings

Please see the attached drawing of the proposed manlift pad to be installed flushed with the mudslab in Zone 2. Per WSP/Flack & Kurtz the dimension of soil between mudslab and top of geothermal pipe must be maintained at all times. It was stated that the geothermal piping could be installed 12" deeper as long as the rise of the pipe follow the radius loop bend requirments, in the method that the geothermal is installed in the sump pits. Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSP Response: Please provide the structural loading weight of the Personnel Hoist and concrete pad in pounds per square foot.

T-0596 **BGP - Sump Pit Grate and Frame at Gridline 19/C** **Closed** **06/11/2013** **06/21/2013** **06/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Jesse Dillon

REQUEST:

See attached drawing CB-2 of returned submittal package TG0600-710, P1-2025, and A1-2125.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sump pit at grid lines 19/C is located within an escalator pit. Frame and grate are not required.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The returned (returned to WOJV/SCCI on 06/07/13) shop drawing submittal (TG0600-710) for catch basin and sump pit grating indicates an additional sump pit grate and frame at approx. GL 19/C per drawing CB-2. The contract drawing P1-2025 does not have a call-out for a grate and frame at this location. Furthermore, drawing A1-2125 has the sump pit located within an escalator pit in the mat slab level. Per Field Order T-00011, all escalator pits do not receive grates or frames.

Please confirm the sump pit at GL 19/C does not have a grate and frame. An expedited response is requested in order to release the full order of frames and grates in a timely manner.

T-0597 **BGP - Concourse Deck Capacity for Construction Loads** **Closed** **06/11/2013** **06/21/2013** **06/12/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Attached Documents

Please confirm it is acceptable to use a Sky Trak 8042 forklift with an approximate operating weight of 25,365 lbs and rated load capacity of 6,000 lbs on the concourse level deck without temporary shoring in place. The forklift is intended for use on the concourse level deck for the installation of wall reinforcing steel. Should this weight exceed the capacity of the structure please advise as to the structure's load capacities without temporary shoring in place for alternate equipment selection and planning.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The design load of the concourse level floor is noted on the contract document S-1002. Provide information on maximum fork-lift wheel reaction If the contract would want TT to evaluate the floor framing for the load imposed by the fork-lift.

T-0597.1 **BGP - Concourse Deck Capacity for Construction Loads** **Closed** **06/28/2013** **07/08/2013** **07/09/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Per response to SCCI's RFI 215 (T-0597) see attached

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The forklift identified in the RFI is acceptable for use

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

axle loadings for Sky Trak forklift model no. 8042. The forklift is intended for use on the concourse level deck for the installation of wall reinforcing steel.

Please confirm if it is acceptable to use noted forklift on top of concourse slab.

on top of the Lower Concourse slab. NOTE that this response is for the forklift and its carrying capacity only and does NOT consider additional construction loads that may be present at the time of this forklift use.

Please refer to original RFI T-0597 response for reference to Lower Concourse design loads.

T-0598 **BGP - Fire Management System Class A vs. Class B** **Closed** **06/12/2013** **06/22/2013** **06/15/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Documents, E1-5201

After consulting with Siemens on the fire management system a clarification is needed. The riser diagram on sheet EI-5201 shows Class A conduit routing for the train platform level and the lower concourse level. Using a Class A wiring layout limits the system to 3 or 4 strobe devices per circuit. Under the NFPA 130 6.3.3.2.8 specification, the embedded (note (1) of the specification) fire management conduit protects against the ASTM E119 fire conditions and Class A isn't required per NFP A specification. Is it acceptable to design the fire management conduit system to meet the NFP A 130 specification under Class B requirements and impliment 6 or 7 strobe devices per circuit instead of the 3 or 4 stobe devices per Class A. By implimenting a Class B system, the future fire management system (installed under a future contract) will be less costly all while meeting the the NFP A 130 requirements.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSP Response: We confirm the Specification requirements for Class A wiring shall apply. The design of the conduit systems shall be configured to achieve Class A wiring for the fire alarm communication circuits that will power the strobelights at the Train Platform Level and Lower Concourse Level. Although we have designed for embedded conduit where possible, we cannot assure in the future design that we can embed or provide approved fire rated cable from the source fire alarm panel to the end device, since the fire rated cable systems that were planned for extension of the circuits have had their listings voided. Embedment and layout for Class A wiring will provide the required protection to meet code and to provide the future flexibility for the life of the building.

T-0599 **BGP - Continuous Concrete Insert Elevations** **Closed** **06/13/2013** **06/23/2013** **06/21/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Attached Documents, Drawing A1-6231

Please reference the attached - clouded, Submittal TG0600- 110 BGP -Concrete Formwork Lift #1 sheet, comment regarding the elevation of the cast-in-place continuous concrete insert. The submittal comment requests an adjustment of the concrete insert elevations. In the attached RFI T-0506 the elevations of the concrete inserts were given to accomplish equal spacing as required by the drawings, as well as incorporate the agreed upon adjustments to the top and bottom insert. SCCI would like to verify that the given elevations of the cast-in members in the clouded section of RFI T-0506 are the correct elevations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to the attached SKA -2745 which confirms the elevations of the continuous concrete inserts.

T-0599.1 **BGP - Horizontal Cast-In Inserts at EFCO Form Panels** **Closed** **11/19/2013** **11/29/2013** **11/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

See attached photo and reference RFI 599.

Interrior rib of the EFCO form panels lines up with the cast-in insert at EL -27.08'. SCCI intention is to bolt the inserts to the forms and this makes it difficult to properly secure the cast-in insert prior to concrete placement. SCCI proposes to lower or raise this insert 2" in order to properly secure it to the form.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/20/2013
RESPONSE:
It is acceptable to lower the cast-in insert as indicated in the RFI.
Cast-in insert at EL -27.08' can be lowered 2" to have a new elevation of EL -27.25' to coordinate with the formwork installation.

T-0600 **BGP - Internal Wall Discrepancies 003** **Closed** **06/17/2013** **06/27/2013** **06/24/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference attached marked up CD AI-9217 detail D.

Referenced detail shows openings in the wall along the GL

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to attached SKA-2743 which shows modifications to the Detail Elevation D on A1-9217 for the Mechanical Opening adjusted for the beam CD-15

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

D. These openings appear to be in conflict with the moment beam that runs along GL D.
Please clarify.

along GL D.

T-0601 **BGP - Internal Wall Discrepancies 004** **Closed** **06/17/2013** **06/27/2013** **06/24/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference attached marked up CD A 1-9217 detail E.

Referenced detail shows openings in the wall near GL5 and GL D. This opening appears to be in conflict with the moment beam that runs along GL D.
Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to attached SKA-2744 which shows modifications to the Detail Elevation E on A1-9217 for the Mechanical Opening adjusted for the beam CD-15 along GL D.

T-0602 **Arup Monitoring Instruments** **Closed** **07/02/2013** **07/12/2013** **07/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: 3/A1-8711 and 6/A1-8711

BBII's dewatering wells and piezometers are installed per Detail 6 on Sheet A1-8711 which clearly shows how the wells and piezometers will be filled and capped after the dewatering has been decommisioned. Detail 3 on Sheet A1-8711 does not provide any indication that these piezometers will be plugged and/or filled. Does the design team intend on leaving these piezometer holes open after the dewatering is shut off? If not, please provide a revised 3/A1-8711 clarifiying the design teams intent.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The monitoring instruments / piezometers will continue to function for a few years after the entire building has been completed, therefore will remain as shown on detail 3 / A1-8711. No additional detail is required at this time.

The instrumentation cables are inside a 2" dia steel pipe. A seal between the sleeve and the pipe is provided by the two linkseals. When the instruments are decommissioned, the conduit is cut off and the opening sealed. Then a steel cap is fully welded to the ring flange at the top of the sleeve, which is flush to the top of the mat slab.

T-0603 **BSE - Beale PG&E Utilities** **Closed** **06/19/2013** **06/29/2013** **07/01/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Lynn Kowallis **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay PMPC Douglas Jacobson

Co-Author: Balfour Beatty Infrastructure, Inc. Rodney Gordon

REQUEST:

Refer RFI T-0286
Specification Section 01 53 13

Please reference W/O RFI T-0286. For First and Fremont street BBII was directed to use a cable weight of 8.2 lb/ft to be used with the 6" conduit. BBII was supplied with a weight of 3 lb/ft for fiber cable used in 4" conduit (not PG&E conduit). BBII does not have a cable weight for 4" PG&E conduit.

1. Please confirm that the 6" PG&E conduit on Beale Street will contain a 8.2 lb/ft cable.
2. Please clarify the weight/ft of the cable used in the 4" PG&E conduit on Beale Street.

This information is necessary to design the utility supports on the Beale street Bridge.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on the attached Reference Data table, the total wt. of rigid conduit + conductors: 4" dia = 19.7 plf; 6" diameter = 40.0 plf

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0604	**#2 CPH Platform through Mat Slab in Zone 2**	**Closed**	**06/20/2013**	**06/30/2013**	**07/28/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please see the attached shop drawings and layout of the construction personnel hoist (CPH) to be installed in Zone 2. The CPH elevated steel PLATFORM to be installed and later removed and poured back such as the trestle pile penetrations.

All work dimensions have been coordinated with structure overhead into future bid packages as well as as-built information of internal bracing in the field.

We propose to :

1) Lower the geothermal piping an additional 12" to maintain the same 15" deep trench under all concrete. This will be performed the same way they install the piping in the sump pits with correct bend radius.

2) Install at 19'-6" x 13'-0" x 16" thickened slab incorporated with the current 4" reinforced mudslab. The

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed Zone 2 personnel hoist installation described in the RFI is acceptable to the Design Team.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

thickened slab will contain #5 bars 12" OC EW T&B and we have confirmed that the total load of thickened slab, CPH, and platform will not exceed 500 PSF.

3) Install CPH elevated steel platform through the mat slab with 3'-0" of clearance between top of mat slab and bottom of platform deck and beams.

4) Waterproof platform legs per detail 5/A1-8711 04/29/13 per ASI 0102 Issued for Construction, Below Grade Package, including galvanized penetration sleeves and waterproofing. Penetration sleeve will be 30" diameter.

5) Reinforcing details will be the same as all other reinforcing at pin/trestle pile blockouts.

Please confirm this is all acceptable.

T-0605 **BGP - Plumbing and Electrical Autocad Files** **Closed** **06/21/2013** **07/01/2013** **06/27/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

SCCI requesting access to the latest, most up to date Auto cad files for the Plumbing (P1-series) and Electrical (E1-series) drawings from the designers. The files would be used for Reference only and will not be used for construction. SCCI understands that the Autocad files are subject to change as the project design evolves.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The TJPA may release Autocad files on a case by case basis. Contact the TJPA Engineering Manager and provide the nature of the request and final distribution of Autocad files. We understand that the information requested covers drawings that have not been released for construction.

T-0606 **BGP - Mat Slab Pour and Bracing Removal- Area 1 to 4** **Closed** **06/21/2013** **07/01/2013** **06/28/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor/Obayashi Joint Ve Spencer Sayles

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 01 13 00

The latest Webcor's weekly update schedule received by

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In response to your RFI 232 the requested analyses cannot be performed until rebracing submittals are received from the BSE contractor and reviewed for

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SCCI (Data date 06.17.2013), shows that Balfour Beaty (BBII)'s activity "Bracing Removal- Level D- BBII- Z1 A1", in Zone 1, area 1 cannot commence until the completion of Webcor's activity "Mat Slab Cure- Z1Al ".The same relationship exists between the two activities for Area 1 to Area 4. Preliminary rough analysis done by SCCI suggests that there is not sufficient sliding resistance to permit the slab in each area to act as effective support for the base of the shoring wall when the lowest level of bracing is removed in that area. The preliminary analysis also suggests that bracing removal level D in Area 1-4 should not commence until the entire mat slab in Area 1-4 are in place.

Please confirm that :
1. Webcor has performed a detailed analysis that the relationship as shown in the schedule between the Bracing Removal- Level D and Mat Slab Cure can be performed in each area, independent of any other areas.
2. SW Comer bracing level D could be removed if only Areas 1 &2 are poured and cured
3. NW Comer bracing at Level 2 could be removed if only Areas 3&4 are poured and cured

approval.

T-0607 **BGP - Bracing Removal Sequence- Area 5-16** **Closed** **06/21/2013** **07/01/2013** **06/28/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor/Obayashi Joint V Spencer Sayles

Co-Author:

REQUEST:

The latest Webcor's weekly update schedule received by SCCI (Data date 06.17.2013), shows that:
* "Bracing Removal- Level D" (BGSOX-1120) is the driving predecessor to "Wall Waterproofing- 1st lift" (BGSOX-4000)- in each area.
* "Bracing Removal- Level E" (BGSOX-41 00) is the predecessor to "Wall Waterproofing- 2nd lift" (BGSOX - 4110)- in each area
* "Bracing Removal- Level B" (BGSOX-6000) is the predecessor to "Wall Waterproofing- 3rd lift" (BGSOX - 6010) in each area

Based on the current schedule logic, the bracing will need

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As was discussed in yesterday's schedule meeting, please provide a detailed wall pour sequence schedule and indicate where specific waler conflicts are anticipated. We will be able to perform an analysis at that point in time.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

to be modified to allow the removal of walers and struts in each area, separately and independently from each other. E.g: Any walers spanning two areas will need to be cut during removal ofbracing so seer can proceed with the waterproofing install in that area, without having to wait for the adjacent area. This is applicable to Bracing Removal level B, C and D.
Please confirm.

T-0608 **Detail of transition between modified reinforcement to contract reinforcement** **Closed** **06/26/2013** **07/06/2013** **07/28/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - C, RFI SCI# 236

This RFI addresses the transition between modified reinforcement to contract reinforcement at GL6 at the south west corner see Location Plan exhibit - A
Exhibit - B (RFI- T-0448.5) proposed the modification of the reinforcement and this detail exhibit C clarifies the exact location and detail where the modified reinforcement changes to the contract reinforcement

This detail if approved would be incorporated into the TG06 shop drawings
Please confirm if this detail is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed foundation wall reinforcement transition is acceptable.

T-0608.1 **BGP - Revised Spacing to Foundation Wall Vertical Reinforcement in Area 2** **Closed** **10/10/2013** **10/20/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

A 16-ft portion of the Area 2 wall vertical reinforcement, between GL 6 and 7, has been installed at 6" OC instead of the required WR1 spacing (8" OC).

Please confirm the as-built vertical wall reinforcement

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/11/2013
RESPONSE:
Please resubmit the RFI with the sketch referenced in the question.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

spacing identified in the attached sketch is acceptable.

T-0608.2 **BGP - Revised Spacing to Foundation Wall Vertical Reinforcement in Area 2** **Closed** **10/14/2013** **10/24/2013** **10/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference drawing S1-2061.

A 16-ft portion of the Area 2 wall vertical reinforcement, between GL 6 and 7, has been installed at 6" OC instead of the required WR1 spacing (8" OC).

Please confirm the as-built vertical wall reinforcement spacing identified in the attached excerpt drawing sheet S1-2061 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/2013
RESPONSE:
As built vertical wall reinforcement spacing indicated in the RFI is acceptable. Please incorporate this change into as-built drawings.

T-0609 **BGP - Clear Cover to the Vertical Reinforcement on the Foundation Wall** **Closed** **07/03/2013** **07/13/2013** **07/10/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Exihibit A, Attached

At some locations the clear cover to the vertical reinforcement on the foundation wall will be far in excess of the 2" shown on detail 1/S1-3201. Base on the RFI T-180.1 (see Exhibit - A) the clear cover could potentially be up 8" at the interface between the foundation wall at lower mat slab elevation and the waterproofing system.

Existing grade elevation = +25' + (protection slab elevation = -42') = 67' X 1/200 (CDSM pile vertical tolerance) = 4"

4" (CDSM pile vertical tolerance) + 4" (set back Per RFI T-180.1) + 2" (design clear cover to rebar) - 2" (waterproofing thickness subject to change) = 8" clear cover to rebar

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Maximum acceptable clear cover between the waterproofing system and foundation wall vertical reinforcement is 6 inches. For clear cover larger than 6 inches, evaluation will be made on a case by case basis. Submit information for review where clear cover exceeds 6". For this calculation, waterproofing thickness can be assumed 2 inches and location of foundation wall reinforcement can be assumed as indicated in contract drawings.

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Please confirm that this clear cover between the waterproofing system and the vertical reinforcement is acceptable.

T-0610 **BGP - Micropiles at CPH #2 Thickened Slab** **Closed** **06/24/2013** **07/04/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Sketch: SK-001

There are 4 micropiles within the perimeter of the thickened slab at CPH #2. Hand excavation will occur around these micropiles to keep from damaging the grout columns. The grout columns will be considered penetrations, in the structural design of the thickened mudslab and trim steel will be installed accordingly at each micropile. We will be installing butyl tape around the exposed grout column and onto the micropile, to top of thickened mudslab as a bond breaker. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to proposed micropile detailing at thickened mudslab as presented in RFI.

Adamson Associates Comment: The proposal in this RFI is not to alter the waterproofing system.

T-0611 **SSS - Grout Hole Diameter and Material** **Closed** **06/24/2013** **07/04/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI: CN-005

Following up with the response to RFI CN-005 please clarify the following:

1. Please advise if steel pipes intend to be filled with grout or concrete.

2. If the filler is grout, a 1" hole for venting should work. We do not need a 3" hole for venting.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Steel pipe is to be filled with 4000 psi pea gravel concrete.
2. As noted in the response #1 to RFI CN-005, the 1" dia hole in the cast node will be remain to serve as a vent hole.
3. Hole in the cast node is to be used as vent hole, not as a grout port. W/O should review the constructability issue raised as this is a means and method issue.
4. As noted in item 2 of RFI CN-005 response, the 3" dia hole and patching details will be provided in a

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3. If the filler is grout please advise if locations of the grout holes in cast nodes have been reviewed in the 3D model for accessibility in the field after nodes are attached to structural steel.

4. If steel pipes are filled with concrete and 3" hole must be patched with partial penetration weld please provide proposed detail and procedure for PJP weld.

5. Please provide procedure for patching the node grout hole.

future ASI.
5. 1" dia hole in the node does not require patching.

T-0611.1 **SSS - Grout Hole Options** **Closed** **08/19/2013** **08/29/2013** **08/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-4002
Reference RFI: T-0611
Reference Sketch: Sketch 1, Sketch 2

Design documents do not specify or provide procedures for filling the steel pipe column with 4,000psi pea gravel. The following two options are proposed, please review and advise.

Option 1 (prefered)
1. Locate 3" grout hole at the back of the pipe to provide access from inside of the building.
2. Locate 3" grout hole about 6" below CJP weld.
3. Fill out pipe with concrete up to the hole.
4. Use 1" vent / grout hole in the cast node to fill out the upper void with grout (not concrete). If it is not required leave the void to reduce added cost.

Option 2
1. Weld a pipe nozzle with threaded end with a valve to 3" grout port.
2. Pump up concrete to completely fill the pipe column including voids in cast nodes.
3. Shut down the valve and wait until concrete sets.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a contractor's means and method issue. Arup fire/blast engineer indicated that the fill needs to be concrete with carbonate aggregate with strength from 4000 to 6000 psi. From the IFC document, a 3" dia grout hole is to be provided for concrete pumping. If the pea gravel cannot travel thru the 1" dia hole in the bus deck cast node, a second group hole is needed above the bus deck node for pumping concrete above the bus deck. Using grout (with siliceous aggregates) is not permitted.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

4. Cut the pipe nozzle off.
5. Clean up the nozzle weld, remove extra concrete, weld in the plug, grind to AESS requirements, touch up.
6. Note: this option will be very expensive.

T-0611.2 **SSS - Grout Hole Options** **Closed** **08/28/2013** **09/07/2013** **09/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI: T-0611.1
Reference Sketch: Attached

The response to RFI T-0611.1 does not address the question. If grouting of the void in the cast node per Option 1 is not permitted, then Option 2 should be applied to completely fill the pipe column and the void in the cast node with concrete. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT has previous responded to RFI 611.1. TT's original response is excerpted below:

"This is a contractor's means and method issue. Arup fire/blast engineer indicated that the fill needs to be concrete with carbonate aggregate with strength from 4000 to 6000 psi. From the IFC document, a 3" dia grout hole is to be provided for concrete pumping. If the pea gravel cannot travel thru the 1" dia hole in the bus deck cast node, a second group hole is needed above the bus deck node for pumping concrete above the bus deck. Using grout (with siliceous aggregates) is not permitted."

TT is not in the position to give instruction to the contractor on how to fill the pipe with pea gravel concrete, as it is contractor's Means and Methods as stated in the original response. Some other possible options are discussed below for contractor's consideration:

Instead of using a 3" grout hole above the ground floor node as noted in Option 2, the contractor can pour the concrete through a 3" hole above the bus deck node and let the grout flowing through the 1" hole in the bus deck node to the pipe below, and the existing grout hole in the ground floor node can be used as a vent hole.

The Contractor may decide to grout the pipe by pouring concrete from the top of the lower pipe before

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the bus deck cast node is welded.

The Contractor may decide to grout the pipe by pouring concrete from the top of the upper pipe after the bus deck cast node is welded but before the roof node is welded (an external vibrator might be needed to facilitate the flow of the pea gravel concrete thru the 1" hole in the center of the bus deck node.

T-0612 **B2 Electrical Room** **Closed** **06/24/2013** **07/04/2013** **07/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: A1-9214

Please confirm the pilaster size and whether a control joint is required at the single door opening to B2 Emergency Electrical Room B2880 adjacent to GL C, 1.4 and verify adjacent wall openings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to attached SKA-2746, 2747, 2748, 2749 and 2750 which provides updated wall, door opening and control joint locations for the B2 Emergency Electrical Room B2880.

T-0612.1 **BGP - Revised Plumbing Layout in Emergency Electrical Room B2** **Closed** **08/14/2013** **08/24/2013** **08/15/2013** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference: T-0612

The response to RFI T-0612 BGP revised the location of the doors to Emergency Electrical Room B2280. Are there any Mechanical, Electrical or Plumbing revisions required in Below Grade Package, to accommodate equipment layout changes resulting from the modified door locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For revised routing of vent and trap primer lines within the mat slab at Room B2280. Refer to attached sketch PSK-2022.

Minola Anghel / MDS 8/14/2013

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0612.2	**BGP - Updated Plumbing Drawing**	**Closed**	**09/06/2013**	**09/16/2013**	**09/09/2013**	**Potentially**	

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to T-0612.1 and drawing P1-3002.

The vent and trap primer lines within the mat slab at Room B2280 were revised in the Foundation Level Zone 02 Plumbing Plan PSK-2022 via RFI T-0612.1. The revised drawing did not include an enlarged plan detail.

Please provide the revised enlarged drawing plan shown on detail 1 of sheet P1-3002 for coordination.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/9/2013
RESPONSE:
See the attached drawing PSK-3002.
CMGC should note that RFI's are answers to questions. The Contract Documents are not continuously updated to follow all questions and answers that arise during construction. All drawings that may relate to a RFI answer will not necessarily be updated when the RFI answer is provided.

T-0613	**BSE - Excavation For Zone 4 Timber Pile Survey**	**Closed**	**06/24/2013**	**07/04/2013**	**07/28/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

Please see attached BBII Letter 4225-000-1232.

1. In Zone 4, East of the buttress shafts, BBII would like to excavate down 3 feet within the 50' berm in order to uncover timber piles. Please confirm this acceptable.

2. Please confirm if the soils need to be immediately backfilled upon completion of the survey or if the excavated elevation can remain.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

This is acceptable east of the buttress and west of Beale Street only.

T-0614	**BGP - C21 Column Vert Std. Hooks, Replace with HRC 555 T-head**	**Closed**	**06/24/2013**	**07/04/2013**	**07/28/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3302

Section 1 on sheet SI-3302 depicts a standard hook at the bottom ofthe #11 vertical for the embedded C21 column. Please confirm it's acceptable to replace the standard hook with an HRC 555 T-head similar to that of the typical vertical wall reinforcing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not acceptable to replace the standard hooks with heads in Detail 1/S1-3302. The possibility of using heads in the second layer of vertical bars in this detail was previously discussed with Seismic and Structural Review Committee (SSRC). Citing minimum clear spacing requirements between headed bars, SSRC recommended use of hooks in the second layer of

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vertical bars as indicated in the construction drawings.

T-0615 **BGP - Clear Cover Notation Discrepancy with RFI 339 Response** **Closed** **06/24/2013** **07/04/2013** **06/27/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3302, S1-3201

Section 1 on S1-3302 details 2-1 /4" clear cover from the face of concrete to the typical wall vertical reinforcing. Per the response to RFI T-0339, the clear cover to the vertical reinforcing was confirmed to be 2" and the cross-ties would encroach into the 2" clear cover. Please confirm the wall vertical reinforcing cover detail in 1/S 1-3302 is superseded by the response outlining the clear cover requirements in RFI T-0339.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The wall vertical reinforcing cover detail in 1/S1-3302 is not superseded by our response to RFI T-0339. RFI T-0339 was on detail 1/S1-3201. Detail 1/S1-3201 and detail 1/S1-3302 correspond to different sections through the foundation wall. Detail 1/S1-3201 is a typical section and detail 1/S1-3302 is embedded columns within the foundation wall. 2-1/4"cover to the vertical reinforcement is specified in Detail 1/S1-3302 because of the larger cross ties required in the embedded columns.

T-0616 **BGP - Micro Pile and Mat Slab CJ Conflict** **Closed** **06/24/2013** **07/04/2013** **06/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3001

See attached sketches of the mat slab joint between S101 and S102. While perfoming the layout of the mat slab construction joints SCCI has discovered a conflict between one of the micro piles and the CJ between the two noted mat slab areas. SCCI will not be able to construct the joint as shown Detail 2 on CD S1-3001, with the micro pile in the way. SCCI proposes to modify the mat slab construction joint, to clear the conflicting micro pile, as shown on the attached sketches.
Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to modify the mat construction joint as proposed in the RFI.

T-0617 **BGP - Catch Basin at the Construction Joint** **Closed** **06/24/2013** **07/04/2013** **07/08/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:
Reference: Drawing A1-2813

See attached lift drawings S105.0, S105.4, and CD A1-2813. For construction convenience, SCCI is proposing to move catch basin that falls between GL 8-9 and South of GL J, 24" westward (towards GL 8). Moving noted CB will make this part of the drainage system fall within the S105 mat slab our, and not have CB split between the CJ.
Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
It is acceptable to shift the catch basin 2'-0" directly West to avoid conflict with the mat slab construction joint. See attached sketch SKA-2756.

T-0618 **BGP - Mechanical Room Plumbing Clarifications 004** **Closed** **06/25/2013** **07/05/2013** **07/11/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:
Reference: Drawing P1-2022, Spec Section 22 13 01

Reference attached marked up CD PI-2022 and the drainage layout drawings. One of the floor sinks is located in the pin pile blockout. This creates a conflict between the added reinforcement in the mat slab and the floor sink.
Please provide details for this conflict.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
For revised piping layout of the Domestic Booster and Irrigation Pump Room, see attached sketch PSK-2022 and SKA-2761.

T-0619 **BGP - CDSM Wall Encroachments rebar details- RFI T-0448.5** **Closed** **06/26/2013** **07/06/2013** **07/02/2013** **Potentially** ☐

From: Shimmick Construction Company, Inc Ben Gordon **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Webcor Construction LP Jackson Tukuafu
Co-Author:

REQUEST:
Within the issued response to RFI 448.5 no details were provided to depict the reinforcing configuration at the point in which the wall steps from it's reduced width back to it's original contract width of 36".
Please provide a detail depicting the acceptable configuration at both the typical wall section and of the concourse level which includes the spandrel beam/wall interface.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Please refer to RFI response T-0608. The WOJV generated RFI T-0608 anticipated these revisions and was submitted prior to RFI T-0619 (SCCI #236).

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0620	**BGP - Strut Bracing Conflicts With Shear Walls and Columns**	**Closed**	**06/26/2013**	**07/06/2013**	**07/15/2013**	**Potentially**	

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3260, S1-3301, S1-2030

Based on the layout of the shoring and diagonal struts in the West end of the job, shear wall reinforcement (as shown on CD S1-3260) and the diagonal struts are in conflict. CD S1-3260 shows continuous vertical shear wall reinforcement from top of the mat slab to top of concourse deck. To avoid constructability issues SCCI suggests for shear walls to be constructed with horizontal construction joints at the same elevation as the first level of foundation walls. Adding horizontal joints will require modification of the reinforcement. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed addition of horizontal CJ's for the shearwalls is acceptable. Contractor to propose reinforcement changes for submittal review.

T-0621	**CDSM Soldier Pile Enchroachment Area 3**	**Closed**	**06/26/2013**	**07/06/2013**	**07/07/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - H

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north wall in slab area 3 as well as all levels of the encroachment into the foundation wall between CDSM piles 1 to 32 as well. Location Plan see exhibit - A

Exhibit - B , C & H depict the location and degree in which the SP are encroaching

Option A
Webcor is proposing to change the alignment of the Concrete Foundation wall on the north elevation along gridlines A between gridlines 1 and 5 - 6 (CDSM piles 1 to 50)
The Concrete foundation wall which runs along gridline A between gridlines 1 and 5-6 would be offset into the structure by 0.1979' (2-3/8") the proposed Face of concrete Foundation wall would then be 2-3/8" off gridline A, this offset would enable the contract reinforcement to be installed without the need for further modifications to the reinforcement due to encroachment of the CDSM piles in concrete pour Areas 3 & 4. See Exhibit - H

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option A

For Option A the proposed revision is acceptable, with the following conditions:

The Train Box design is restricted at the B2 Train Platform Level by the Rail Vehicle Kinematic Envelopes (RVKE). The B1 Lower Concourse Level is strictly controlled by space planning constraints, particularly minimum requirements for Public Utility rooms, service rooms and associated structural and service coordination.

The CDSM wall zone described in this RFI is outside of the RVKE, therefore at the B2 level the foundation wall face can be offset as proposed. However, at B1 Level, the offset will affect Utility Room and Service configurations.

If Option A is adopted, either:

1) Provided the foundation wall configuration and structural design permit, the offset should only occur in this area at the B2 Level and transition back to the

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Option B
WOJV proposal: (See Exhibit - B) Between CDSM piles 1 to 20-21 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear all the encroaching SP. This foundation wall area was originally a WR1 reinforcement area (#11@8"oc EF vertically) and would change to #11@6"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 see Exhibit - D.
Between CDSM piles 20-21 to 22 WOJV is proposing to decrease the specified 36" wall thickness again to 33 5/8" to clear all the encroaching SP, originally this was a WR2 reinforcement area #11@6"oc vertically and would change to #11@5"OC the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit - E)
Between CDSM piles 22 to 31 the reinforcement would remain unchanged as per the Contract Reinforcement.
See Exhibit-G showing a detail of transition between modified reinforcement to contract reinforcement with a non-contact reinforcement lap detail.
Either of these options if approved would be incorporated into the TG06 shop drawings
Please confirm if either of these options would be acceptable

original alignment on Gridline A before reaching the B1 Level.

OR

2) Any offset to the foundation wall face at B1 Level will require adjustment to space planning, coupler layouts, structural / service opening coordination and potentially may need further negotiations with Public Utility Companies i.e. it is not acceptable to simply 'shave off' a couple of inches from a room at this level.

Note that all transitions are to be smooth and not stepped.

Our comments for proposed Option B are as follows:

1) It is not acceptable to transition foundation reinforcement width and/or vertical rebar spacing within sections where specified foundation wall reinforcement is "WR2" or where there is an embedded column per construction documents. Provide uniform reinforcement width and rebar spacing within these regions. The transitions can be acceptable at the ends of (or just outside) these regions.

2) Foundation wall rebar WR2 and embedded columns are designed using vertical rebar spacing of 6" (see construction documents). Proposed changes to this spacing can negatively impact the constructability moment frame beam at the lower concourse level. As an example, see attached sketch which shows the rebar detail at the lower concourse moment frame beam and foundation wall. To assist in addressing these constructability issues it may be acceptable to move wall rebar a maximum of 3/4 inch as needed.

3) Use of tighter foundation wall rebar spacing than those specified in the construction drawings will negatively impact the constructability at the ground floor, where moment frame beams join the foundation wall. To assist in addressing these constructability

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

issues it may be acceptable to move wall rebar a maximum of 3/4 inch as needed.

4) Min center-to-center spacing between two #11 foundation wall vertical rebar with heads cannot be less than 5" (3.5 times bar diameter). The rule does not apply for hooked rebar. This is a general comment provided as a reminder for future revision requests."

The Design Team must be informed of the contractor's preferred approach prior to committing to shop drawings.

T-0621.1 **CDSM Soldier Pile Encroachment Area 3** **Closed** **07/12/2013** **07/22/2013** **07/23/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - C

This RFI is an additional request based on the response to RFI T- 621 option A (see exhibit - A) The original RFI T-621 option A addressed the impact of the encroaching CDSM soldier piles on the north wall in slab in areas 3 and 4 by proposing to offset the face of concrete foundation wall by 0.1979' (2-3/8") into the structure. WOJV note the original response where it was acceptable to offset the foundation wall between B2 and B1 elevations but would have to transition back to design alignment between B1 and ground elevation however this transition back would not be possible as there are CDSM piles encroaching the full high of the foundation wall, with that WOJV is proposing the following possible solution, to continue the revised offset alignment between B1 and ground elevation however limiting it to an area between GL 1 and 2-3 (CDSM piles 1 to 21)full wall height , WOJV acknowledge the fact the PG&E transformer room need to remain at its current size but feel there may be some scope to slightly change the dimensions of the main switchgear room or the service corridor or both see exhibit B and exhibit C.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed in the meeting with TJPA, WOJV, Turner, AAI and WSP (07/22/13), the proposed solution to maintain the offset of the foundation wall up through Level B1 is acceptable to the Design Team subject to the following adjustments:

PG&E Transformer Vault (B1223/4) shall remain the same size and shift south by 2-3/8". Main Switchgear Room (B1222) will absorb the 2-3/8" wall shift south. Floor opening in NW corner of Main Switchgear Room will shift south 2-3/8" with wall. North Electrical Room (B1289) shall remain same size and shift down 2-3/8" (with electrical slab opening). Landscape Storage (B1288) will accommodate the 2-3/8" wall shift south. Fire Main POE (B1290) wall will move 2-3/8" south. Plumbing Intake Room (B1229) shall absorb the 2-3/8" foundation wall shift south.

Please also note that RFI 621 was on Area 3, not on 3 and 4 as indicated in RFI 621.1

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This proposal if acceptable to offset the foundation wall would enable the contract reinforcement to be installed without the need for further modifications due to encroachment.
Please confirm if this option would be acceptable

T-0621.2 **BGP - CDSM Soldier Pile Encroachment Area 3** **Closed** **07/24/2013** **08/03/2013** **07/30/2013** **Potentially** ☐

From: Webcor Construction LP Ryan Burke **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to RFI T-0621 Response Option B Responses #2 & #3.

The RFI response states that it is acceptable to move vertical wall rebar a maximum of ¾" as needed to avoid clashes with horizontal mat reinforcing. As the vertical reinforcing is #11 bar (1 3/8") and the mat reinforcing is #10 (1 ½"), in the worst case a mat reinforcing bar will clash with the vertical bar when the layout ends up with both bars installed on the same centerline. Please confirm that in this case, the reinforcing can be moved the 1 3/8" to avoid the clash.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Moving the foundation wall vertical rebar more than 3/4 inch is not acceptable. Clashes between foundation wall vertical rebar and mat rebar, if any, can be addressed moving the mat rebar up to 1-3/8 inches.

T-0621.3 **BGP - Area 3 North Wall Verts Clearance Near GL 2** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Reference: RFI T-0621.1 and drawing S1-3201.

Due to the CDSM soldier pile encroachment, the area 3 North foundation wall reinforcement was moved 2-3/8" towards the center of the structure per RFI T-0621.1. During placement of a 4'-6" section (8 vertical bars) of the first lift of the foundation wall exterior vertical steel approximately 2'-0" west of GL 2, it was discovered that

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

there was 1/4" to 1" of clearance between the waterproofing and vertical bars. The concern is once the cross-ties are placed between the vertical bar and waterproofing, there would not be enough concrete coverage.

Please confirm if it is acceptable to omit the first 3 rows of cross-ties (24 total) in the area as described.

T-0622 **BGP- CDSM Soldier Pile Encroachment Area 4** **Closed** **06/26/2013** **07/06/2013** **07/07/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - J

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north wall in slab area 4 as well as all levels of the encroachment into the foundation wall between CDSM piles 31 to 60 as well. Location Plan see exhibit - A
Exhibit - B ,C & J depict the location and degree in which the SP are encroaching

Option A
Webcor is proposing to change the alignment of the Concrete Foundation wall on the north elevation along gridlines A between gridlines 1 and 5 - 6 (CDSM piles 1 to 50)
The Concrete foundation wall which runs along gridline A between gridlines 1 and 5-6 would be offset into the structure by 0.1979' (2-3/8") the proposed Face of concrete Foundation wall would then be 2-3/8" off gridline A, this offset would enable the contract reinforcement to be installed without the need for further modifications to the reinforcement due to encroachment of the CDSM piles in concrete pour Areas 3 & 4. See Exhibit - J

Option B
WOJV proposal: (See Exhibit - B) Between CDSM piles 31-32 to 35 and 41-42 to 45-46 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option A

For Option A the proposed revision is acceptable, with the following conditions:

The Train Box design is restricted at the B2 Train Platform Level by the Rail Vehicle Kinematic Envelopes (RVKE). The B1 Lower Concourse Level is strictly controlled by space planning constraints, particularly minimum requirements for Public Utility rooms, service rooms and associated structural and service coordination.

The CDSM wall zone described in this RFI is outside of the RVKE, therefore at the B2 level the foundation wall face can be offset as proposed. However, at B1 Level, the offset will affect Utility Room and Service configurations.

If Option A is adopted, either:

1) Provided the foundation wall configuration and structural design permit, the offset should only occur in this area at the B2 Level and transition back to the original alignment on Gridline A before reaching the B1 Level.

OR

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clear all the encroaching SP, originally this was a WR2 reinforcement area #11@6"oc EF vertically and would change to #11@5"OC the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit -E) Between CDSM piles 35 to 41-42 and 45-46 to 49 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear all the encroaching SP. This foundation wall area was originally a WR1 reinforcement area (#11@8"oc EF vertically) and would change to #11@6"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D). Between CDSM piles 49 to 60 the reinforcement would remain unchanged as per the Contract drawings. See Exhibit-G, H & I showing details of transition between modified reinforcement to contract reinforcement.

Either of these options if approved would be incorporated into the TG06 shop drawings
Please confirm if either of these options would be acceptable

2) Any offset to the foundation wall face at B1 Level will require adjustment to space planning, coupler layouts, structural / service opening coordination and potentially may need further negotiations with Public Utility Companies i.e. it is not acceptable to simply 'shave off' a couple of inches from a room at this level.

Note that all transitions are to be smooth and not stepped.

Option B

For Option B, proposed revision is acceptable however, we note the following:

1) Near gridline 4, move the proposed reinforcement width transition to west by a few feet so that uniform wall thickness can be achieved within the WR2 zone.

2) See Option B Comments 2 and 3 provided in response to RFI #T-0621.

The Design Team must be informed of the contractor's preferred approach prior to committing to shop drawings.

T-0622.1 **BGP - CDSM Soldier Pile Encroachment Area 4** **Closed** **08/13/2013** **08/23/2013** **08/22/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A & D

This RFI addresses the previous comments to RFI T-622 see exhibit - D.

The contractor preference approach is to use a modified option B originally outlined in RFI T-622

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) We have not received any formal information from the contractor regarding the reduction in the thickness of the waterproofing system mentioned in this RFI. Therefore, we cannot assess the impact of the change in waterproofing system thickness to the encroachment calculations presented in Exhibit C. Also, the calculations provided in this RFI seem to consider 2 inch thickness for the waterproofing

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Exhibit - A shows the revised Plan view with modifications made. Exhibit - C depict the degree in which the SP are encroaching in area 4.

Based on the response to previous RFI's the number of encroaching beams in area 4 has been reduced mainly due to the decreased thickness of the waterproofing system and the contractor willingness to use some of the construction tolerances in an effort to mitigate some of the smaller encroachments. This has resulted in only one area where modified reinforcement will have to be installed; Between CDSM piles 47 to 49 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP number 48. This wall area was originally a WR1 reinforcement area (#11@8"oc EF vertically) and would change to #11@6"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing.

In all other locations in area 4 the reinforcement would remain unchanged.

See Exhibit-B showing details of transition between modified reinforcement to contract reinforcement.

Please confirm if this solution is acceptable.

system, which is unchanged from previous RFIs.

AAI Comment: The below grade waterproofing Substitution Request accepted by the TJPA does not significantly change the overall dimension of the materials in the waterproofing system.

2-) As indicated in our response to RFI T-0626, if the contractor prefers to address small encroachment issues through acceptable construction tolerances, this approach is acceptable

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T-0622.2 **BGP - Wall Vertical Reinforcement Spacing in Area 4** **Closed** **10/10/2013** **10/20/2013** **10/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: RFI T-0622 and RFI T-0622.1.

The Area 4 wall vertical reinforcement has been installed different from the layout in RFI T-0622.1.

Please confirm the revised vertical wall reinforcement spacing as shown in the attached sketch is acceptable.

Note that the wall thicknesses remain the same as

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/20013
RESPONSE:
Revised vertical wall reinforcement spacing is acceptable as long as all vertical rebar have cross-ties. Please incorporate these changes into as-built drawings. Note that using tighter rebar spacing in foundation walls than required in construction drawings may negatively impact constructability at

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

approved in RFI T-0622.1.

Lower Concourse and Ground Levels where beam and slab rebar is embedded into the foundation walls.

T-0623 **BSE - Micropile Relocation - Overhead Obstructions** **Closed** **06/28/2013** **06/28/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference : Attached Documents, Spec Section 31 63 33

Nine (9) micropiles under trestle span 3.3 in Zone 3 had to be relocated in the field due to overhead obstructions and a very confined working area. See attached chart and drawings for as-built relocation information.

Please confirm these relocations are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving the 9 micropiles presented in RFI as proposed.

Reminder for Contractor to verify/coordinate potential conflicts with future train platform walls.

T-0624 **BSE - Micropile E231 Relocation - Instrumentation Pipe - Overhead Obstructions** **Closed** **06/28/2013** **07/08/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference: Attached Drawing, Spec Section 31 63 33

Micropile E231 under trestle span 3.4 in Zone 3 had to be relocated in field 5.5' north due to overhead obstructions. Blue piping with instrumentation wiring inside was directly in the way of the micropile.
See attached drawing for relocation information.

Please confirm this relocation is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropile E231 as proposed.

T-0625 **BSE - Micropile E137 Relocation - Above Ground Equipment Obstruction** **Closed** **06/28/2013** **07/08/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Attached Drawing, Spec Section 31 63 33

Micropile E137 in Zone 3 was installed 1' south of original location because it was in conflict with the de-sanding equipment. See attached drawing for relocation information.

Please confirm this relocation is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to moving micropile E137 as proposed.

T-0626 **BGP- CDSM Soldier Pile Encroachment Area 5** **Closed** **07/02/2013** **07/12/2013** **07/10/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - J

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south walls in slab area 5 as well as all levels of the encroachment into the foundation wall between CDSM piles 60 to 81 on the north elevation and 702 to 732 on the south elevation. For Location Plan see exhibit - A.

Exhibit - B, & C depict the location and degree in which the SP are encroaching

For this RFI, the combined layers of the water proofing system had been assumed to be 2" thick, which is subject to change, this may increase or decrease the number of encroaching piles depending on the thickness of the system used.

WOJV proposal North elevation on gridline A: (See Exhibit - B) Between CDSM piles 60 to 62 and 69 to 71 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 61 & 70, originally these were WR1 reinforcement area's #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D). Between CDSM piles 76 to 78-42, WOJV is proposing to decrease the specified 36" wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) It is not acceptable to transition foundation reinforcement width and/or vertical rebar spacing within sections where specified foundation wall reinforcement is "WR2" or where there is an embedded column per contract documents. Provide uniform reinforcement width and rebar spacing within these regions. The transitions can be acceptable at the ends of (or just outside) these regions. In Area 5, this comment applies near GL 8, North Wall.

2-) Per Exhibit D, encroachments for some piles seem very small (for example, pile 61). For small encroachments, a 'no remedy' approach can be followed as long as the actual construction is executed within the tolerances specified in the contract documents (see specifications for information on construction tolerances).

3-) Mock up specimen is being developed for a location where an embedded column is used within the foundation wall. Embedded columns include two layers of #11 rebar with 6" spacing. The contractor proposes to use #11@5" in lieu of WR2 foundation wall reinforcement (#11@6") at a number of locations to remedy encroachment issues. If this option is adopted, the tightest foundation wall reinforcement will become #11@5". Revise the foundation wall mock up specimen shop drawings to include #11@5" single

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

thickness to 33 5/8" to clear the encroaching SP 77. This foundation wall area was originally a WR2 reinforcement area (#11@6"oc EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit - E).

WOJV proposal on the South elevation: (See Exhibit - B & F) Between CDSM piles 704 to 706, WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 705, originally this was a WR1 reinforcement area #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D).

In all other areas without CDSM encroachment issues the reinforcement will remain unchanged as per the Contract drawings.
See Exhibit-G, H, I & J showing details of transition between modified reinforcement to contract reinforcement. These solutions if approved would be incorporated into the TG06 shop drawings.
Please confirm if these solutions would be acceptable.

layer foundation wall vertical reinforcement.

4-) Foundation wall rebar WR2 and embedded columns are designed using vertical rebar spacing of 6" (see construction documents). We note that proposed changes to this spacing can negatively impact the constructability of the foundation wall joints at mat, lower concourse and ground levels (e.g, installing beam rebar, foundation wall dowels at the mat). An example was provided with our response to RFI T-0621.

T-0626.1 **BGP - CDSM Soldier Pile Encroachment Area 5** **Closed** **08/13/2013** **08/23/2013** **08/23/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A & D

This RFI addresses the previous comments to RFI T-626 see exhibit - D.

Exhibit - A shows the revised Plan view with modifications made. Exhibit -C depict the degree in which the SP are encroaching in area 5.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) See our response to RFI T-0622.1.

2-) Revised reinforcement detail near GL 8, North wall is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Based on the response to the previous RFI the number of encroaching beams in area 5 has been reduced mainly due to the decreased thickness of the waterproofing system and the contractor willingness to use some of the construction tolerances in an effort to mitigate some of the smaller encroachments. This has resulted in only one area where modified reinforcement will have to be installed this is Between CDSM piles 73-74 to 78 on the north wall elevation WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP number 77. This wall area was originally a WR2 reinforcement area (#11@6"oc EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing.

In all other locations on the north and south walls of area 5 the reinforcement would remain unchanged.

See Exhibit-B showing details of transition between modified reinforcement to contract reinforcement.

Please confirm if this solution is acceptable.

T-0627 **BGP- CDSM Soldier Pile Encroachment Area 6** **Closed** **07/03/2013** **07/13/2013** **07/11/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - J

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south walls in slab area 6 as well as all levels of the encroachment into the foundation wall between CDSM piles 81 to 104 on the north elevation and 679 to 703 on the south elevation. For Location Plan see exhibit - A.

Exhibit - B, & C depict the location and degree in which the SP are encroaching

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not acceptable to transition foundation reinforcement width and/or vertical rebar spacing within sections where specified foundation wall reinforcement is "WR2" or where there is an embedded column per contract documents. Provide uniform reinforcement width and rebar spacing within these regions. The transitions can be acceptable at the ends of (or just outside) these regions. In Area 6, this comment applies near GL 9, South Wall. Solutions at all other locations are acceptable. However, as indicated in response to RFI T-0626, use of #11@5" for foundation wall vertical reinforcement

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

For this RFI, the combined layers of the water proofing system had being assumed to be 2" thick, which is subject to change this may increase or decrease the number of encroaching piles depending on the thickness of the system used.

WOJV proposal North elevation on gridline A: (See Exhibit - B) Between CDSM piles 82 to 84 and 102 to 105 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 83 & 103, originally these were WR1 reinforcement area's #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D).

WOJV proposal on the South elevation: (See Exhibit - B & Exhibit - F) Between CDSM piles 680 to 683, WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 681 & 682, originally this was a WR1 reinforcement area #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D).

Between CDSM piles 695 to 697, WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 696. This foundation wall area was originally a WR2 reinforcement area (#11@6"oc EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit -E).

In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.

See Exhibit-G, H, I & J showing details of transition between modified reinforcement to contract reinforcement. These solutions if approved would be incorporated into the TG06 shop drawings.
Please confirm if these solutions would be acceptable.

can negatively impact constructability.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0627.1	BGP - CDSM Soldier Pile Encroachment Area 6	Closed	08/13/2013	08/23/2013	08/23/2013	Potentially	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A & D

This RFI addresses the previous comments to RFI T-626 see exhibit - D.

Exhibit - A shows the revised Plan view with modifications made. Exhibit -C depict the degree in which the SP are encroaching in area 6.

Based on the response to the previous RFI the number of encroaching beams in area 6 north elevation has been reduced mainly due to the decreased thickness of the waterproofing system and the contractor willingness to use some of the construction tolerances in an effort to mitigate some of the smaller encroachments. This has resulted in no modifications now required to the contract reinforcement on the north elevation and changes have been made to the south elevation in line with response to the original RFI T-626.

See Exhibit-B & E which shows details of transition between modified reinforcement to contract reinforcement on the south elevations.

Please confirm if this solution is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) See our response to RFI T-0622.1.

2-) Revised reinforcement detail near GL 9, South wall is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0627.2	BGP - CDSM Soldier Pile Encroachment: SP696 & SP104 in Area 6	Closed	10/10/2013	10/20/2013	10/18/2013	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

During Shimmick's (SCCI) field layout of the CDSM encroachment in Area 6, the folloWing extent of encroachment has been moved:

-For encroachment at SP696, SCCI moved the East extent to SP694, this is due to SP695 encroaching during the buried bar layout. This accounts for 4' additional wall length with 33-5/8" due to CDSM encroachment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/2013
RESPONSE:
The deviations indicated in this RFI from the RFI response T-627.1 are acceptable. Please incorporate these changes into as-built drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

- For encroachment at SP104, the west extent of encroachment was moved to SP102. The rebar option 1 for SK1 with #11 rebar @ 6" OC will be used from SK102 to the West Extent of WR2 at Gridline 11

Please confirm the deviation from RFI response to T-0627.1 is acceptable.

T-0628 **BGP-CDSM Soldier Pile Encroachment in Area 7** **Closed** **07/03/2013** **07/13/2013** **07/11/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Michael Spillane

REQUEST:

Reference Documents: Exhibits A - J

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south walls in slab area 7 as well as all levels of the encroachment into the foundation wall between CDSM piles 104 to 134 on the north elevation and 649 to 679 on the south elevation. For Location Plan see Exhibit A.

Exhibit B, & C depict the location and degree in which the SP are encroaching

For this RFI, the combined layers of the water proofing system had being assumed to be 2" thick, which is subject to change this may increase or decrease the number of encroaching piles depending on the thickness of the system used.

WOJV proposal North elevation on gridline A: (See Exhibit B) Between CDSM piles 102 to 105 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 103 & 104, originally these were WR1 reinforcement area #11@8"OC EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit D).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not acceptable to transition foundation reinforcement width and/or vertical rebar spacing within sections where specified foundation wall reinforcement is "WR2" or where there is an embedded column per contract documents. Provide uniform reinforcement width and rebar spacing within these regions. The transitions can be acceptable at the ends of (or just outside) these regions. In Area 7, this comment applies near GL 12, South Wall. Solutions at all other locations are acceptable. However, as indicated in response to RFI T-0626, use of #11@5" for foundation wall vertical reinforcement can negatively impact constructability.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

WOJV proposal on the South elevation: (See Exhibit B & Exhibit F) Between CDSM piles 657 to 659 & 677 to 680, WOJV is proposing to decrease the specified 36" wall thickness to 33 1/2" & 33 5/8" respectively to clear the encroaching SP 658 & 678, Originally these were a WR1 reinforcement area #11@8"OC EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit D). Between CDSM piles 665 to 667 & 673 to 677, WOJV is proposing to decrease the specified 36" wall thickness to 32 15/16" & 33 5/8" respectively to clear the encroaching SP 666, 674 & 675. This foundation wall area was originally a WR2 reinforcement area (#11@6"OC EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit E).

In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.

See Exhibit G, H, I & J showing details of transition between modified reinforcement to contract reinforcement.

These solutions if approved would be incorporated into the TG06 shop drawings.

Please confirm if these solutions would be acceptable.

T-0628.1 **BGP - CDSM Soldier Pile Encroachment Area 7** **Closed** **07/16/2013** **07/26/2013** **07/23/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A & B

This RFI addresses the previous comments to RFI T-628 see exhibit - A.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed revision to the foundation wall reinforcement near Gridline 12 is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Exhibit - B shows the revised Plan views with modifications made.

Please confirm if this solution is acceptable.

T-0629 **BGP - Clear Cover on Concourse Slab** **Closed** **06/28/2013** **07/08/2013** **07/01/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3500, Spec Section 03 30 20, 03 20 00

Detail 1 on S 1-3500 calls out for 3/4" clear cover on top and bottom of the lower concourse slab. ACI codes 301 and 318 specify 3/4" minimum cover for #11 bars and smaller, in slabs that are not exposed to extreme environment. Even though lower concourse is designed to eventually be enclosed with the rest of the superstructure, it will be exposed to the weather elements during the construction of the project. With that said, inadequate cover over rebar can cause plastic settlement cracking. SCCI is concerned that the 3/4" clear cover in the concourse slab could cause this plastic settlement cracking.
Please confirm that the clear cover on the lower concourse slab is 3/4" minimum?
Please specify what is the maximum clear coverage of the lower concourse reinforcement?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Concrete cover is for protection of reinforcement against weather and other effects. The cover is prescribed for 3 classes of structural members in ACI 318, a) concrete cast against and permanently exposed to earth, and b) concrete exposed to earth or weather, and c) concrete not exposed to weather or in contact with ground. The concrete slab at the lower concourse level, even though will temporarily exposed to weather during construction like any other building structure, is usually categorized as type c condition, which requires a 3/4" minimum cover per ACI 318, Section 7.7.

The statement of "inadequate cover over rebar can cause plastic settlement cracking" is not totally correct, as the ratio of cover to reinforcing bar diameter is only one of many factors that contributes to the plastic settlement cracking. The amount of settlement tends to be proportion to the depth of concrete, i.e., the deeper the section the greater the settlement. Hence, plastic settlement usually occurs in a much thicker slab with much heavier top rebars. With only a 12" thick slab at the lower concourse level, we don't anticipate that plastic settlement cracking becomes a problem, as long as good construction practices are follow. Those practices include, but not limited to the following:

Use mixes with lower bleeding characteristics.

Wet the subgrade or formwork before placing concrete

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

to avoid excessive water loss from the base of the concrete.

Set all formwork accurately and rigidly so that it will not move during concrete placement

Place concrete in the deep sections (beams or columns) first and let it settle prior to placing and compacting the top layers (ensuring two layers blend together)

Fully compact the concrete

Follow the requirements of hot weather concrete placement specified in the Specifications.

Cure the concrete promptly and properly.

The maximum cover should be in accordance with the allowable tolerance per ACI 117 as specified in the Specifications.

We anticipate that SCCI will develop a mix design and employ proper construction technique to ensure that the plastic settlement shrinkage will not occur lower concourse slab and mat.

T-0630 **BGP - Mat Slab Key Way Waterstops Installation** **Closed** **06/28/2013** **07/08/2013** **07/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Photos, Spec Section 03 30 20

SCCI is proposing to leave the formed key surface in the mat slab as a formed finish to aid in the bonding of the hydrophilic waterstops to the concrete. With a specified 1/4" amplitude on the concrete surface, the bond between the concrete and the waterstop system decreases. The remainder of the construction joint will have stayform in place which generates a roughened surface. Please see

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification section 03 20 00 2.5.C addresses this topic and requires a reasonably smooth finish at surfaces which are to receive waterstops. 2.5.C also requires roughened surface be leveled with 2-part epoxy per manufacturer's recommendations. Leaving the vertical surface indicated in the RFI as a formed finish will be acceptable provided the finish to receive the waterstop is reasonably smooth and meets the installation surface requirements of the hydrophilic

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
	attached photos that high light the area which will be formed finish. Please advise if this is acceptable?				waterstop manufacturer. The hydrophilic waterstop is to be installed on surfaces prepared in accordance with the manufacturer's instructions.		

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0631	**BGP - Mat Slab Reinforcing Conflict with Micropiles**	**Closed**	**07/01/2013**	**07/11/2013**	**07/12/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-2022 Thru S1-2031

The typical mat slab reinforcing designed to be installed at 8" O.C.E.W. for the bottom and top mats. The micropile layout also consists of a uniformed spacing and at some locations has been adjusted for conflicts or for other purposes, example RFI 490. Should the typical mat slab reinforcing when laid out at 8" O.C.E.W. or some other reinforcing designed within the mat slab conflict with the micropile asbuilt, is it acceptable to displace the reinforcing from the designed spacing layout such that it is repositioned to either side of the micropile? Additionally, please confirm if reinforcing in direct contact with the micropile is acceptable? Should the displacement of the reinforcing to either side of a micropile not be acceptable please provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Typical and additional mat reinforcing bars (flexural steel) and mat pit reinforcing bars may be shifted in plan up to +/- 4" from the typical spacing of 8" o.c.e.w. where the typical spacing would result in a conflict between the flexural steel and the micropile. Before making such a shift, the contractor shall verify that said shift will not cause unforeseen conflicts that impact the placement of column dowels, mat headed shear reinforcement, or any other mat or wall reinforcement detailing. Where such a shift will impact the placement of other reinforcement, contractor shall not shift the mat bar out of typical spacing, and instead may resolve the conflict by either of the following methods:

a) Treat the micropile obstruction sim to a typical opening per the Typical Slab Opening Detail found on 1/S1-3501 (i.e. add 2 bars of same dia and grade as the bar being interrupted, one to either side of the conflicting micropile).

b) Shift the conflicting bar only locally, up to +/- 4" from the typical as permitted above, splicing back to typical spacing (with non-contact splice either side of micropile) as required to avoid any conflicts with other mat reinforcement that may occur due to the shift.

Mat rebar shall not be in direct contact with the micropile or gage steel boot that functions as part of the waterproofing assembly, but rather achieve min 1.5" clear btwn rebar and micropile steel. Refer to 2/A1-8711 for waterproofing assembly info.

T-0632	**BGP - Geothermal Field 7 & 8 Manifold Riser Layout**	**Closed**	**07/02/2013**	**07/12/2013**	**07/09/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Photos

The initial geothermal riser/manifold layout for Fields 7 & 8

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not acceptable to locate the risers for fields 7&8 as suggested between soldier piles 172-173-174. Riser for field 7 can be located between piles 174 and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

placed the field 7 & field 8 risers between soldier piles 176-177 and 177-178 respectively. To avoid conflicts with the riser install and the temporary 1st bridge, is it acceptable to move the field 7 riser to the CDSM wall panel between piles 172 and 173 and the field 8 riser to the CDSM wall panel between piles 173 and 174? See attached photos. Additionally, SCCI is looking to relocate the temperature probe to the CDSM wall panel between soldier pile beams 171 and 172.
Is this acceptable? Please advise.

175. Riser for field 8 can be located between piles 175 and 176.

It is not acceptable to re-locate temperature probe pipe between 171 and 172. It is acceptable to locate the probe east of risers 7 and 8 between soldier piles 178 and 179.

T-0633 **BGP - ASI#104 Clarifications** **Closed** **07/03/2013** **07/13/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: ASI 104s

SCCI is in receipt of ASI #104 on June 25th, 2013 in CR#T-071. Please clarify the following:

1) Per Sheet S-2202 to S-2211, the additional internal walls at the concourse are shown to be in solid line, for Zone 2-7, 10-11. Note 7 on S1-2022 refers us to the architectural drawings for CMU and concrete partition layout dimensions, joint locations, and CMU thickness. However, the corresponding Architectural drawings issued in ASI #104 for wall at concourse (A-2222 and A-2223), only depicts changes in Zones 2 and 3.

a) A-2222 and A-2223 depicts the revised concourse walls to be RCW- please confirm that the internal concourse walls are not in TG-06 scope and additional scope to TG-06 contract will only be the additional couplers for added wall.

b) Please confirm that there are no internal walls to be constructed in TG06's scope at concours level.

c) Please confirm that the internal concourse walls shown as solid lines in drawing S-2022 to S-2211 are supposed to be shown as 'dotted' or 'ghost' lines in ASI #104.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See below GM/TT comments. WOJV comments included.

1.

a. WOJV to confirm this item.
JT/WOJV - Confirmed.

b. WOJV to confirm this item.
JT/WOJV - Confirmed, same as 1a.

c. We assume the RFI means sheet range starting with S1-2202 and not S-2022. These lower concourse partition walls are supposed to be dashed. WOJV to confirm these are NOT part of the TG06 package.
JT/WOJV - Price all internal walls below the concourse level.

d. WOJV to confirm this item.
JT/WOJV - Provide dowels for all CMU walls shown on the concourse level and below.

e. Sheets A1-2224 through A1-2231 have been issued with 100%CD Phase 1 documentation.

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d) In multiple drawings (e.g: S1-2204), at the middle top of the page, the word "Future" has been deleted. Original drawings show "Future CMU walls, TYP". ASI #104 structural drawings deleted the word "Future" . Please clarify if the CMU walls at the concourse are in TG06's scope.

e) Please issue revised Architectural drawings for Zone 4-Zone 11 (A2224-2231, revised) with the additional RCWs layout for the wall plan at concourse

2) Per S1-2210 revised, a new note states: "Coordinate w/ manufacturer shop drawings for extent of beams". Please clarify which manufacturer SCCI is to coordinate with, or provide dimensions

3) ASI #104 issued new "Slab Edge Plan" A2842, A2843 and A2847 for Zone 2, 3 and 7. The new drawings depict the locations of MEP sleeves that were not shown in previous drawings.

a) SCCI has not received any revisions to concourse plumbing drawings depicting these changes. The original plumbing drawings do not correspond to the location of the sleeves/blackouts shown in the new Architectural drawings A2842, 2843, 2847. Please verify which drawings SCCI needs to utilize to layout the sleeves/openings.

b) Please issue Architectural drawings with sleeves/blackouts locations at the reminders of the zones.

4) ASI #104 issued revised electrical drawings E1-2202 to E1-2204 that changes the layout ofthe electrical rooms. TG06 contract scope includes the installation F15 junction boxes to be terminated in designated electrical rooms.

a) Please provide revised detailed drawings on the electrical room layout (E1-3201, 3202).

2. "manufacturer" refers to cooling tower manufacturer as the support framing is labeled for the cooling tower. JT-WOJV - An MEP subcontractor is projected to awarded in March 2014. Please remit an RFI isolating the details of the cooling tower pier, dimensions, etc.
3.

a. Slab edge plans issued for ASI#104 are coordinated with updated plumbing background drawings.

b. Slab edge plans for the remainder of the Lower Concourse Level have been issued with 100%CD Phase 1 documentation.

4. Please refer to attached sketches SKE-01-3202,SKE-01-3201 and SKE-02-3201 for electrical room layouts.

T-0633.1	**BGP - 100% CD Phase 1 Documentation**	**Closed**	**08/27/2013**	**09/01/2013**	**09/11/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference CR T-071 - ASI 104 - Below Grade Modifications and RFI T-0633.

As per coordination meeting on 08/26/2013, to discuss discrepancies in ASI #104, the architectural drawings for Zone 4 thru Zone 11 (A1-224-2231, A1-2844-2846, A1-2848-2851) are not included in ASI 104. The architectural drawings are critical for SCCI's coordination and pricing of interior wall layout on the concourse level in conjunction with the corresponding structural drawings released in CR T-071 - ASI #104. Although, the design team provided their response to these discrepancies in RFI T-0633 by referencing "100% CD Phase 1 Documentation," the drawings have yet to be released for construction.

1. As per request by the design team, please release the following most-up-to date drawing sheets via this RFI : A1-2224 - 2231, A1-2844 - 2846, A1-2848 - 2851.
2. Please confirm the aforementioned drawings are to supersede current drawings in trade group package TG06.0.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/11/2013
RESPONSE:
The attached SKAs update the Architectural Drawings indicated on RFI T-0633.1

SKAs-2825 to 2830 based on A1-2224 to A1-2231 Wall Plans

SKAs- 2831 to 2834 based on A1-2844 to A1 -2847 Slab Edge Plans

SKA-2835 to 2836 based on A1-2850 to A1-2851 Slab Edge Plans Although requested in the RFI, drawing A1-2848 does not exist in the drawing set.

The information contained in the above noted SKAs supersedes the above noted Wall Plans and Slab Edge plans.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0634	**BGP - Mass Concrete Placing Temperature**	**Closed**	**07/08/2013**	**07/18/2013**	**07/18/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 03 30 20, Attached Letter

Please reference attached CTL Group letter dated 7.3.2013, Mat Slab Mock-Up thermal monitoring graph, Mat Slab Mock-Up thermal monitoring sensor locations sketch, Mat Slab CEMEX concrete tags and BOP spec section 03 30 20.3.5.B. Shimmick proposes the Maximum concrete placing temperature for Mass Concrete be increased to 80 degrees Farenheit.
Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed increase in maximum placement temperature is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0635	**BGP - REBAR - Clarification to Maximum Allowable Rebar Clear Cover**	**Closed**	**07/09/2013**	**07/19/2013**	**07/17/2013**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3201, Spec Section 03 30 20

RFI T-0608 shows detail of transition between modified reinforcement to contract reinforcement and shows that the internal wall face location of the concrete wall remains as shown in the contract drawing.

RFI T-0448.5 proposes to decrease the rebar configuration to accomodate the thinnest wall section to be 33-1/8" to clear all the encroaching SPs.

At some locations, the rebar cover on the vertical wall rebar will exceed 2" Typ as shown in detail 1/S 1- 3201.

The worst case scenario in Area 1 & 2 will be at SP 737(lower), where the beam is 3.6" Too Far from the allowable horizontal alignment per TG03's contract Spec 31 56 13-3.3A.
In this case, the rebar cover will be: 2-7/8" (from the difference between 36" and 33-1/8") +2" (allowable rebar cover) +5-3/8" (0.64' offset - 0.1875' allowable waterproofing thickness) = Total cover of 10-1 /4"

Please confirm that the maximum rebar clear cover (unreinforced concrete) of up to 10-1/4" between the CDSM wall and the Vertical Outside Face rebar in Area 1 & 2 is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) We cannot make a determination based on the clear cover information provided for the worst case location. Information should be provided for each individual pile within an area (or multiple areas). One way to present this information would be in tabular form similar to the wall encroachment information provided in other RFIs.

2-) Provide clear cover information using the foundation wall reinforcement location as indicated in contract drawings, see our response to RFI T-0609.

3-) Provide consistent allowance for waterproofing in clear cover calculations. For example, in RFI T-0609 2" was assumed whereas in RFI T-0635 2 ¼" is assumed.

T-0636 **BGP - Micropile and Mat Slab CJ Conflict** **Closed** **07/09/2013** **07/19/2013** **07/12/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3001, Attached Sketches

See attached sketches of the Mat slab joint between S101 /S103 and S102/S 104. SCCI has discovered conflicts between multiple micro piles and the CJ between noted two mat slab areas. SCCI will not be able to construct the joint as shown Detail 2 on CD S 1-3001 , with the micro piles in the way. SCCI proposes to modify the mat slab construction joint, to clear the conflicting micro piles, as

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to modify the mat construction joint as proposed in the RFI.

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shown
on the attached sketches.
Is this acceptable?

T-0637 **BGP - CDSM Wall Encroachment Rebar Details at Spandrel and Concourse Neede** **Closed** **07/15/2013** **07/25/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to RFI response T-0608 and T-0448.5.

The approved typical CDSM encroachment wall reinforcement detail at the SW corner, West of GL 6 found in RFI T-0608 does not include the concourse level spandrel beam/wall interface.

Please provide a detail depicting an acceptable configuration at the concourse level which includes the spandrel beam/wall interface.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The details provided in RFIs T-608 and T-448.5 were developed by WOJV.

Submit RFIs regarding CDSM encroachment at spandral beam/wall interface for specific locations similar to prior encroachment RFIs. Include detailed backup and proposed solutions.

T-0638 **BGP - Mat Slab U Bars in Modified WR-2 Reinforcement Areas** **Closed** **07/16/2013** **07/26/2013** **07/23/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - E

The contractor has highlighted a potential conflict with the uses of #11@5"OC vertically at the areas where CDSM piles at encroaching in WR-2 reinforcement areas.

Exhibit - A is a vertical cross section through the modified WR-2 area
Exhibit - B is a cross section showing the potential conflict with verts @ 5"OC
Exhibit - C is a cross section showing the original design with verts @ 6"OC
Exhibit - D & E depicts possible solutions

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Either of the options presented in this RFI are acceptable where the #11@5" rebar is used. The "candy cane shaped bar" should include 180-deg standard hook (refer to detail 4/S1-3001 in contract drawings). Note that this RFI seems to focus on the constructability of the U-bars. However, if the top mat rebar was projected on Exhibits D or E, clashes with the 5" spaced foundation wall vertical rebar (inner face) can also be seen."

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

One of the proposed solutions Exhibit - D is to have the "U" bars at the contract width of 7.41"(6"+#11 bar dia) and the vertically rebar @ 5" OC and the U bars moves horizontally to avoid any conflicts with the mat slab reinforcement.

Another possible solution is to change the "U" bars to a bar with a standard hook "candy cane shaped bar" see Exhibit - E

Please confirm if either of these options would be acceptable

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T-0639 **BGP - Weld Access Hole repair** **Closed** **07/16/2013** **07/26/2013** **07/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: S1-3003, Spec Section 05 50 10

Please reference attached Pile Sleeve pictures, shop drawings, and product data/MSDS for Bituthene Liquid Membrane and Sikaflex la. Weld access holes (see photos) allow us to weld the penetration
sleeves together in a continuous vertical weld (see shop drawings). SCCI proproses sealing access holes prior to pouring the mat slab.
SCCI suggests sealing access holes on the piezometer lower rings (see Photo #1) with Bituthene Liquid Membrane Coating (see attached data) prior to installing the Preprufe Detail Patch per Option C of Grace substitution. SCCI suggests filling all other access holes (typ. trestle piles & monitoring instruments) in the intermediate rings (see Photos #2 & #3) with Sikaflex Ia Premium Sealant (see attached data & MSDS) prior to mat slab pour.
Please confirm this is an acceptable solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All contractor means and methods holes in all locations of the steel sleeve elements are to be welded watertight closed. The waterproofing details are to follow the waterproofing manufacturer's instructions.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0641	BGP - Level D Internal Bracing Removal	Closed	07/16/2013	07/26/2013	07/19/2013	Potentially	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Document: Exhibit A

Level D internal bracing removal in areas where walers are not connected together.

Due to the curing requirements of the concrete in the mat slab, the contractor is proposing to have a "hopscotch" sequence to the mat slab pours, as an effort to mitigate delays. The removal of the level D bracing will follow the pour sequence, however as shown in Exhibit A which is a north wall elevation, what is the maximum clear distance horizontal between the construction joint in the mat pours and the next level D internal bracing strut/waler. This becomes an issue when trying to schedule the bracing removal with the mat and wall pours. WOJV understands that this is for areas where the walers are not connected together.

Once the parameters for the bracing removal have been established the contractor will create a plan and sequence for each pour area on the removal of the internal bracing where the walers have being connected together.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This work should be coordinated between the internal bracing designer and the structural engineer.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0642	BSE - Steel Plates at CDSM Piles 167-168	Open	07/17/2013	07/27/2013	07/18/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference: Spec Section 31 56 13

During leak grouting at level 5 excavation, a section of the CDSM wall panel between soldier piles 167-168 became dislodged, resulting in a high volume leak. In an effort to stabilize the damaged CDSM panel and stop the leak, BBII installed a steel road plate between soldier piles 167-168 and injected grout behind it.

BBII is concerned that removing the plate will likely cause the panel to become destabilized and could reopen the flow of water. BBII surveyed the face of the plate and found that at pile #167, the face of plate is 1/2" out from

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

W/O to resubmit once the encroachment requirement is determined.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

the theoretical face of pile, and at pile #168 the plate is 1-1/2" out from the theoretical face of pile. BBII proposes leaving the steel plate in place to maintain integrity of the CDSM panel. The edges of the plate may be grouted to provide a smooth transition to the CDSM wall for waterproofing.

Please confirm this is acceptable.

T-0643 **BGP - ASI#104 - A1-2122 Added Line** **Closed** **07/17/2013** **07/27/2013** **07/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing A1-2122, ASI#104

Please find attached A1-2122 issued in ASI#104. Please clarify what do the highlighted lines represent.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The highlighted line indicated in this RFI, is a 3" concrete topping with slope that will added later. It is not part of the Below Grade Package and should not have been shown on this Wall Plan Drawing. The attached SKA-2771 shows A1-2122 without the topping line.

T-0644 **BGP - Plumbing Scope Clarification ASI 104** **Closed** **07/17/2013** **07/27/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Shimmick Construction Comp Ben Gordon **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing P1-6001, Spec Section 22 13 01

See attached marked up Rev 0 and Rev 1 Drawings P 1-6001. Pl-6001 Rev 1 is a revision per AST 104. Rev 1 of the noted drawing does not have any "for reference only" notations in the details.

Is the intent of the Designers to significantly change the scope of TG06 work?

Please clarify the scope of work, i.e. applicable and non

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As per the attached drawing:

1. Detail 1, 2 and 5 of drawing sheet P1-6001 (ASI #104) depict typical standpipe details. These details are not applicable to the TG06 package.
2. Detail 4/P1-6001 (ASI #104) depicts a change in the floor clean-out cover. This detail is applicable to the TG06 package where the floor drains are either at the concourse and mat slab level and the specific detail is called-out for "floor cleanout detail."
3. Detail 6/P1-6001 is applicable if below the

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applicable details of the CD P1-6001 for the TG06 package.

concourse slab. Typ.
4. Detail 11 and 12 of sheet P1-6001 show sump pump details titled "Detail At Mech Pump Room B2230 and B2442." The applicable scope to TG06 includes embeded pipe in the mat slab or added pony wall, pony wall and pit opening.

WOJV welcomes a page-turner with SCCI for any future clarifications.

T-0645 **BGP - Door Opening Size at Emergency Electrical Room** **Closed** **07/18/2013** **07/28/2013** **07/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: SKA-2748, Spec Section 03 30 20

A new door opening has been added to the Northeast comer of the Emergency Electrical Room B2280 per drawing "SKA-2748" included with the response to RFI # T-0612. There are no dimensions provided for this new door opening on any of the sheets included in RFI # T - 0612.

Please confirm door width to be 3'-5". Reference attached drawing "SKA-2748"

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The door opening is 3'-5" flanked by standard 1'-4" X 1'-4" piers, as shown attached SKA-2774 which supersedes SKA-2748 from RFI T-0612 BGP.

T-0646 **BGP - Wall Pier Thickness - 3'5" + 3'5" Openings - Area 3 & 4** **Closed** **07/19/2013** **07/29/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing A1-9215, S1-9050, Spec Section 03 30 20

There appears to be conflicting dimensions for the concrete interior wall pier located near gridlines 3.5/C.3 as shown in the attached drawing Al-9215. Contract drawing Al-9215 details the pier to be 2'0" wide by 1 '4" thick.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 2 piers identified in the RFI sketch are 1'-6" thick as per schedule on S1-9050. The north side of the piers along the corridor shall remain flush with adjacent walls.

See attached SKA-2783. The pier thickness dimensions have been removed from this architectural

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However, based on criteria for wall piers as shown on S1-9050, the wall pier should be 2'0" wide by 1 '6" thick.

Please confirm if the two wall piers identified in the attached A 1-9215 should be 1 '4" thick or 1 '6" thick.

If the wall is to be 1 '6" thick, please provide direction as to which side of the wall pier is to be maintained flush with adjacent wall.

drawing as the pier dimensions are obtained from S1-9050 as noted above.

T-0647 **BGP - Area 3 Clear Cover to the Vertical Reinforcement on the Foundation Wall** **Closed** **07/19/2013** **07/29/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - G

Further to response to RFI T-609 (see exhibit - F) this RFI shows the areas of foundation wall in pour area 3, north and west walls which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A & C

Exhibit - B & C depict the amount and location of the foundation walls which will have greater than 6" of clear cover to the vertical reinforcement

Area of concern is the west wall along gridline 1 where the alignment of the foundation wall was moved by 3-1/8" per RFI T-576 see exhibit - E due to encroachment issues on CDSM piles see exhibit - G for information on the encroaching piles in this area as a result of this move there are large areas which will have greater than 6" of clear cover.

This RFI assumes that the solution to encroachment on the north wall Area 3 RFI T-621.1 (see exhibit D) is to move the wall 2-3/8" to offset the encroachment is acceptable.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit B of this RFI is acceptable. We note that the reference to RFI T-0448.5 in Exhibit B in is incorrect. RFI T-0448.5 is not relevant to this zone.

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outlined at these locations is acceptable

T-0648 **BGP - Area 1 Clear Cover to the Vertical Reinforcement on the Foundation Wall** **Closed** **07/19/2013** **07/29/2013** **07/26/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - G

Further to response to RFI T-609 (see exhibit - F) this RFI shows the areas of foundation wall in pour area 1, south and west walls which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A & C

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

Areas of concern are the west wall along where the alignment of the foundation wall was moved to per RFI T-576 see exhibit - E due to encroachment issues on CDSM piles, however this has resulted in large areas which will have greater than 6" of clear cover. On the south elevation see Exhibit - D (RFI T - 448.5) which shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment.

Exhibit - G shows the information on encroaching CDSM pile in this area for your review.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement outlined at these locations is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit B of this RFI is acceptable.

T-0649 **BGP -Area 2 Clear Cover to the Vertical Reinforcement on the Foundation Wall** **Closed** **07/22/2013** **08/01/2013** **07/31/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Documents: Exhibits A - G

Further to response to RFI T-609 (see exhibit - F) this RFI shows the areas of foundation wall in pour area 2, south wall which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A & C

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

Exhibit - D & E (RFI T-448.5 and RFI T-608) which shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in area 2.

Exhibit - G shows the information on encroaching CDSM pile in this area for your review.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement outlined at these locations is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit B of this RFI is acceptable.

T-0650 **BGP - Fire Management System Layout Conflicts with Class A Design** **Closed** **07/19/2013** **07/29/2013** **07/24/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing E1-2026, Spec Section 28 30 01, Attached Drawing

Review of the fire management system device layout appears to not meet the minimum candela rating of the NFPA code; refer to the attached drawing (dwg. #1, shaded) showing the areas of the platform that are deficient. Please confirm the candela rating set forth in the NFPA code are met with the current layout on drawing E1-2026 or provide a new layout that comply with NFPA candela rating requirements.

SUGGESTION:

The revised device layout shown in drawing #2 will greatly decrease the candela rating to meet the NFPA requirements. This layout would require additional devices.

ANSWER: **Accept Suggestion:** ☐

The fire management system design is a performance based design as per Section 28 30 01-1.1C of the contract documents. The Contractor is responsible for the design of the system as required to meet NFPA 72 and provide additional visual alarm strobes in addition to those shown on the drawings to meet NFPA 72 (Section 28 30 01-2.6P).

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0651	**BGP - Area 3 Partition Wall Clarification**	**Closed**	**07/19/2013**	**07/29/2013**	**07/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing A1-2122,S1-9050, Spec Section 03 20 00, Gerdau's RFI#58

Please clarify if the highlighted portions within the outline of the Partition Walls should be denoted as a different structural element i.e: a column, pilaster ,or a thickened wall that is different than the typical 12" thick partition wall per detail 3/S19050.

If the answer is yes, please reference or provide the correct reinforcing detail that is to be applied at each location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent for the partition wall at gridline C.3 to the right of gridline 1.4 is to apply the 9/S1-9050 pier reinforcement & pier thickness required for the door width and pier height at each end of the partition wall and extend to result in a uniform thickness wall to simplify construction.

The intent for the partition wall at gridline E to the left of gridline 2 is to apply the 9/S1-9050 reinforcement & pier thickness required for the elevator door width and pier height and apply along the full length of this wall.

The intent for the partition wall at gridline E.6 to the left of column at gridline 2 is to apply the 9/S1-9050 pier reinforcement for the 12" thick pier.

T-0652	**BSE - Zone 4 Excavation Sequence**	**Closed**	**07/22/2013**	**08/01/2013**	**07/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Based on the 7/18/2013 OAC Meeting please confirm it is acceptable to excavate level 2 West of Gridline 31 once level A cross lot bracing has been stressed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:

Confirmed. Excavation east of gridline 31 is contigent on connection of the level A walers on the east end and prestressing of the diagonal braces on the east end. A 3:1 slope for the excavated face is required per the specifications 31 00 00 Section 3.8 D. The top of this slope should be at grideline 31.

T-0653	**BSE - Fremont Bridge Pier 6 Near Mat Depression**	**Closed**	**07/22/2013**	**08/01/2013**	**07/23/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author: Balfour Beatty Infrastructure, Inc. Brandon Miller

REQUEST:

Reference: Attached Autocad Drawing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Correction: This location is at the First Street Bridge,

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Fremont Street Bridge Pier #6 appears to conflict with the mat depression at GL 18-C in a similar way to the slab penetrations addressed in RFI T-0479.1.

Please confirm that RFI T-0479.1 applies to Fremont Bridge Pier #6 and that it is to be included in the applicable CR T-067 revision.

not Fremont.

CMGC is to follow response to RFI T-0479.2 and waterproofing manufacturers recommendations for this issue.

Upcoming CR T-067R2 will include all locations where excavation modifications are required due to waterproofing configuration requirements at the TJPA's approval.

T-0654 **BGP - Mat Slab Control Joints** **Closed** **07/22/2013** **08/01/2013** **07/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Drawing

Please reference attached CJ Layout for Mat Slab in Zone 1. SCCI requests acceptance to move Mat Slab Control Joints to have a 2' clearance of any pit. Control joints will be returned to their original
layout and will tie to Foundation Wall at the submitted CJ locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We assume the 2'-0" proposed clearance of pit means clear of the thickened extent of mat for the pit as graphically implied in the RFI sketch.

It will be acceptable to modify the CJ layout in the mat for the 3 clouded locations identified in the RFI, however, Contractor to coordinate installation of and/or verify that headed shear reinforcement at columns (where applicable) can be installed at CJ's.

T-0655 **BGP - Revised Attached Method of Nelson Studs to the Elevator Pit Embedded An** **Closed** **07/24/2013** **08/03/2013** **08/05/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 05 50 10

While attaching the 3/4" diameter by 8" Nelson Studs to the 8" X 4" X 1/2" angle it was determined the studs were not fusing to the base metal (angle). To maintain the procurement schedule of this fabrication needed for the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The angled stud in the interior of the angle requires a different type of ferrule (heel) to address the angled condition. The alternate means used to attach Nelson studs for angles in this RFI is acceptable provided that at least 2 studs per angle have been verified by bend test per specification section 03 20 00 2.2.C.2, which

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Zone 1 - Area 03 Mat Slab placement, our fabricator (Gerlinger Steel) used the fillet weld method performed under the attached Welding Procedure Specifications (WPS) to attach studs to the angle(s). The welding was witnessed by the dispatched (IR #001459) ISI Shop CWI. Attached for the readers information and use are the shop fabrication drawing, the employed WPS, and photographs of the finished fabrication.

Is the alternate means of attaching the Nelson Studs to the angle, using the fillet weld method in lieu of the fusing method, acceptable?

references AWS D1.1-2010 (Paragraph 7.8 for testing requirements).

T-0656 **BGP - Shear Wall Dowel and Shoring Pipe Bracing Conflict** **Closed** **07/24/2013** **08/03/2013** **08/07/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3001, Spec Section 03 30 20

A few potential conflicts exist between the typical shear wall vertical dowels and the 36" OD shoring Pipe Struts in Area 1. See attachement for locations of conflict.

Based on Detail A shown in S1-3260, the typical shear wall verts will be lap spliced.

Per the schedule in Detail 1-S1-3001, the #9 vertical shear wall reinforcement requires a 63" lap splice, which places the top of dowel at elevation -30'-5".

The centerline of Level D diagonal bracing atop Area 1 is shown to be at EL -29'-0" and the bottom of the 36" OD pipe strut at level D is at EL -30'-6".

The pipe strut will potenially encroach on the shear wall dowels since the vertical spacing is #9 at 10" OC.

Please confirm that a 60" lap splice is acceptable at locations where conflicts exist, if not please provide soultions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor proposed lap splice length is acceptable only at locations where the conflict exists.

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T-0658	**BGP - Embedded Conduits in Mat Slab for the Light Column**	**Closed**	**07/25/2013**	**08/03/2013**	**08/02/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference attached drawing E1-2205 and E1-4105.

Per the attached lighting plan drawings, there are no electrical conduits shown to be embedded exclusively for the Light Column on drawing S1-6005.

Please confirm that there are no conduits required for the light column in both the concourse slab and mat slab or provide the location, route and size of the conduit at each level.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No, there are no embedded conduits required in lower concourse slab or mat slab.

T-0659	**BGP - Mat Slab Conduits**	**Closed**	**07/30/2013**	**08/09/2013**	**08/13/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: A1-9204, E1-6001

The electrical conduit details on sheet A1-9204/Detail 1 and Detail 5 on E1-6001 regarding the electrical conduits on the columns are in conflict. Detail 1 on A1 -9204 indicates an embedded junction box in the long portions of the columns at Line D.8 above the Train Platform Level. Detail 5 on E1- 6001 indicates all conduits are to be stubbed up 12" at the face of the column. This Detail 5 shows all conduits (shown dashed) above the 12" stub up in the Mat Slab are to be installed in future phases outside of the TG06.0 contract. The columns are part of the TG06.0 scope.

1. Please clarify if these junction boxes and conduit are to be embedded in the columns or stubbed up through the slab at the face of each column at all four (4) locations..

2. If the conduits and boxes are to be embedded in the columns please provide a revised embedded conduit detail indicating conduits as part of TG06 Below Grade Scope.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The embedded junction box details on A1-9204 applies only to the flat surfaces (north and south sides) of the columns along GL D.8 of Platform 2 (refer to note on details 1 & 2 on A1-9204) and shall have embedded boxes and conduits. Locate the conduit and boxes such that the device faceplates will be finished flush to the finished column cladding.

The east and west sides of the columns indicated on the note shall have surface mounted junction boxes and conduits (refer to detail 1 on A1-9204).

For all other columns in the BGP, the junction boxes and conduits are typically surface mounted (refer to detail 5 of E1-6001).

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0660	**BGP - Clear Cover to Mat Reinforcing at CDSM Pile Encroachment**	**Closed**	**07/30/2013**	**08/09/2013**	**08/07/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3201, Spec Section 03 30 20

Per Section 1 on S1-3201, the mat slab reinforcing is shown with 6" of clear cover from the outside face of the concrete wall. When the outside face wall and mat foundation step in and out due to CDSM encroachment, the 6" clear dimension shown on 1/S1-3201 will be encroached upon.

Please confirm this is acceptable. This would apply in any area where the wall thickness is being reduced due to encroaching CDSM Pile.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Encroachment into the 6" clear dimension is acceptable as long as mat rebar does not conflict with the foundation wall vertical reinforcement at the outer face. To avoid this conflict, clear dimension between the mat slab reinforcing and outer face of the concrete wall shall not be less than 4". For future reference, note that the condition at the embedded columns within the foundation walls is different. That condition is illustrated in detail 1/S1-3302 of the construction drawings and the question included in this RFI does not cover that condition.

T-0661	**BSE - Access trestle penetration sleeve**	**Closed**	**07/30/2013**	**08/09/2013**	**08/26/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: 4/A1-8711, Attached Sketch

2 bump outs have been installed onto the South side of the access trestle in Zone 2 (see attached sketch). Each bump out has 4 trestle piles identical to the trestle piles supporting the rest of the access trestle. Please confirm it is acceptable sleeve and waterproof the 8 piles (2 bump outs - 4 trestle piles ea.) per detail 4/A1-8711. The bump outs will be removed prior to the concourse slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to sleeve the 8 piles for the access trestle extensions (bump outs) as shown in detail 4/A1-8711.

Part of this RFI is for a waterproofing system proposed by the Contractors, not the system designed by the Architect. The Contractors should have their engineer who prepared this waterproofing system design respond to this RFI. Until that is done, the Contractor should confirm all waterproofing system questions and details with the waterproofing manufacturer (with copies to the TJPA and its consultants and the Architect).

Contractor shall submit dimensioned locations of bump out piers and size for review of introducing sleeved penetrations into the mat.

Prior to submitting dimensioned locations, Contractor shall review for, including but not limited to, mat conflicts with other work and mat exclusion zones.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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T-0662	**BGP - Clarification for the Response to RFI T-0631 Micropile Conflict**	**Closed**	**08/01/2013**	**08/11/2013**	**08/05/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 03 30 20, Attached sketches

Per discussions on 7/31/13 between members of TT, Webcor, Shimmick and Gerdau please confirm the following clarifications and intent of method "B" as it relates to the response issued for RFI 631 reviewed via teleconfrence.

1. The clear cover of 1 1 /2" as described in the response to RFI 631 has been eliminated. The reinforcing bars may come into contact with the micropile and the waterproofing wrapped around the lower portion of the micropile.

2. At the contractor's discretion, he/she may displace the typical contract bar +/- 4" from the called out spacing as required to avoid clashes with the installed micropile. The displacment of the typical reinforcing may be either for the full length of the bar or weaved around the clashes depending on the specific condition. If this solution is incorporated and results in the typical reinforcing being displaced such that the end of the bar is not in the typical alignment a non-contact lap splice with the next adjacent designed/detailed bar is acceptable. Should the displacement of the typical contract bar to resolve the clash with the micropile result in another clash with another element of the reinforcing design this condition will be addressed through the RFI process upon recognition. See attached sketch #1 for reference.

3. At the contractor's discretion, he/she may cut the typical contract bar creating a gap in the bar to allow for the clashing micropile. Should this be the selected method to resolve the clash a lap splice bar of the same grade and bar size will be required at either side of the gap. The splice bar may be a non-contact lap splice. See attached sketch #2 for reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed.

2. Confirmed.

3. Confirmed.

T-0663	**BSE - Micropile Tie-Down detail**	**Closed**	**08/05/2013**	**08/15/2013**	**08/09/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawing: S1-3003
Reference Submittal: TG0300-620.1

Detail 1 on S1-3003 shows a 12"x12"x2" plate under the domed nut on top of the micropile. Note 1 on S1-3003 states that "the contractor is responsible for the design of the pile to meet the design load requirements ... as stated in the project specifications." Submittal No. TG0300-620.1 was returned "No Exceptions Taken" and did not include the plate under the domed nut as it was not a part of BBII's micropile design. Please confirm that it is acceptable to move forward with approved Submittal No. TG0300-620.1 without the 12"x12"x2" plate.

Confirmed that contractor-designed micropile without the plate is acceptable.

T-0664 **BGP - Conflict Between Pit Reinforcing & Trestle/Pin Piles** **Closed** **08/05/2013** **08/15/2013** **08/07/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Drawing S1-2022, Attached Photos

During the installation of the pit reinforcing between GL 1.4-2.3 and D.4-F a conflict was discovered between trestle/pile and the tail of the #11 pit reinforcing that extends beyond the limit of the pit out and into the main mat slab. Gerdau proposes to trim the tails of the conflicting rebar (Flame Cut) such that clearance can be maintained to the sleeve around the piles.

Please confirm this is acceptable or provide direction on how to proceed. This conflict is expected to occur at future pits too.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The tails of pit reinforcement that are extending beyond limits of pits and are in conflict with trestle/pin piles may be trimmed for only the 4 of the 5 locations identified in the RFI.

For the 5th location at trestle pile located at D.4-4.4 (which is within the pit depression), see attached SKS-0281.

Note that flame-cutting that has been allowed is limited to applications of this RFI only.

For future pits within the remainder of the Project, when the tails of pit reinforcement that extend beyond the limits of the pits that conflict with trestle/pin piles/bridge piers, Contractor shall coordinate with as-built locations and apply detail similar to 1/S1-3007 (where bars interrupted by trestle/pin/bridge pier shall turn up).

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0665	**BGP - Locations of Electrical Outlets, Equipment, and Fixtures**	**Closed**	**08/05/2013**	**08/10/2013**	**08/07/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section, 26 05 34

Per Specification Section 26 05 34, 3.2 B., the dimensions of the equipment fixtures and outlets are to be submitted via RFI for clarification pre pour. Attached is the layout for Electrical Room B2221 in the first Mat Slab pour.

Please confirm that these dimensions are acceptable so that the conduit can be laid out correctly.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Layout does not match architectural wall dimensions. Contractor to revise and resubmit layout as coordinated with ASI-102, dated 04/29/2013. Refer to sheet A1-9215 markup attached and coordinate with architectural wall dimensions.

Submitted sketch does not show wall details. Future layouts to be submitted on current CAD backgrounds and all dimensions must be based on interior clearances.

All electrical rooms will be lined with 3/4" plywood backboard. Contractor to coordinate layouts to accommodate.

Due to potential conflict with door, FATC to be relocated to south wall, 9" from west wall, as shown in sheet E1-3101 markup attached. Dimensions added for clarity.

T-0665.1	**BGP - Electrical Locations of Outlets, Equipment, and Fixtures in Electrical Room**	**Closed**	**08/23/2013**	**09/03/2013**	**08/27/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to drawing A1-9215, 1/E1-3101 and attached sketch SK-SCCI-0204.2.

Please find a revised electrical conduit layout for Electrical Room B2221 as requested in RFI T-0665. Please confirm the conduit layout and outlet, equipment and fixture locations shown in the attached sketch SK-.SCCI-0204.2 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

WSP notes revised location of FATC per original RFI response; however, the following items are still outstanding:
Layout does not match architectural wall dimensions. Contractor to revise and resubmit layout as coordinated with ASI-102, dated 04/29/2013.
Submitted sketch does not show wall details. Future layouts to be submitted on current Contract Document backgrounds and all dimensions must be based on interior clearances.
All electrical rooms will be lined with 3/4" plywood backboard. Contractor to coordinate layouts to accommodate.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0665.2	**BGP - Locations of Electrical Outlets, Equipment and Fixtures in Electrical Room E**	**Closed**	**09/12/2013**	**09/22/2013**	**09/19/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing A1-9215 dated 04/29/2013, E1-3101 dated 05/31/2013 (RFI T-0665) and attached shimmick sketch SK-RFI204.4.

The attached layout for Electrical Room B2221 shows the dimensions of the conduit locations in respect to the interior walls which are lined with 3/4" plywood per RFI T-0665. In addition, the room is located from grid lines, respectively..

Please confirm the layout as shown in the attached Shimmick sketch is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/19/2013
RESPONSE:
Layout as shown is acceptable. Conduit provisions for pumps connected to LPH-B2-A-12 are not shown. Please submit for review.

T-0665.3	**BGP - Locations of Electrical Outlets, Equipment and Fixtures in Electrical Room E**	**Closed**	**09/23/2013**	**10/03/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference E1-3101

Confirm that the conduits for circuits to panelboard LPH-B2-A-12 are not included in the TG06 scope of work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/24/2013
RESPONSE:
WSP Response: This statement is correct. The circuits to this panelboard are in the main project package and are not applicable for this phase.

T-0666	**BSE - Elevator Pit Dimensions between GL 1.4 and GL 2**	**Closed**	**08/05/2013**	**08/15/2013**	**08/08/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: ASI #104, A1-9214 / A1-2122

Since the elevator manufacturer has not been selected, please confirm that the size of the elevator pit located between GL 1.4 and GL 2 is to be 10'-8" by 8'-10" as depicted in ASI #104 sheet A1-9214.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CMGC shall confirm the pit dimensions noted on the contract documents are acceptable to all the elevator subcontractors on the CMGC approved bidder shortlist. CMGC shall schedule hiring of sub-contractors as required to allow CMGC coordination between the trades.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0666.1	**BGP - Mat Slab Clarification to Elevator Pit and Slab Opening Dimensions**	**Closed**	**08/21/2013**	**09/03/2013**	**08/28/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Webcor/Obayashi (W/O) is in receipt of attached Adamson Associates, Inc. (AAI) response to RFI T-0666 - BSE - Elevator Pit Dimensions Between GL1.4 and GL 2.

This response is unacceptable. The Architect has sole responsibility for confirming that the pit dimensions of all elevators and escalators will accommodate the Architect's proposed elevator and escalator systems.

Until a 100% IFC set is completed by the Architect, W/O has no definite knowledge of the Architect's proposed elevator and escalator systems. This issue has been discussed verbally for over 2 years, during which the Architect has maintained that they have full responsibility for designing all pits and openings to fit their proposed elevator and escalator systems. W/O is unable to even start the RFQ/Bidding process for hiring sub-contractors until the 100% IFC Contract Drawings are finalized by the Architect and approved by the owner; therefore, it is impossible for W/O to hire/coordinate sub-contractors prior to pouring of the elevator pit in the mat slab.

The same applies to all pits and openings throughout the design documents, only the Architect is capable of confirming that these dimensions are acceptable for all of the Architect's proposed elevator/escalator systems.

Please confirm all elvator pits and slab openings are acceptable as currently shown on the contract documents.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The design team believes the elevator pit dimensions noted in the contract documents are coordinated with the requirements of the alternate elevator manufacturers noted in the specification. The CMGC shall confirm the work of adjacent trades have been coordinated between shop drawings and existing field conditions. The CMGC shall coordinate with the TJPA to hire Sub-contractors at the required times to ensure that construction work and shop drawings of adjacent trades are completed in time to coordinate between trades.

T-0667	**BGP - Geothermal Loop Excavation in Zone 4**	**Closed**	**08/05/2013**	**08/09/2013**	**08/07/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 31 23 34.

Please refer to attached WOJV and SCCI internal correspondence in RFI #SHIMM000-0038.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
The question asked is Contractor's means and methods.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SCCi is aware of the CDSM wall excavation required for the geothermal field risers, but is not aware of a geothermal specification requiring buttress shaft demolition for the geothermal loop trenches. Specification 31 23 34, Section 3.2 is very clear in the full scope of the ground excavation in soil and wall riser excavation in the CDSM, but it does not cover trenching in buttress shaft concrete.

Please provide a design defining the geothermal fields within the buttress shafts. Please include slot excavation, back-fill and compaction requirements in the the affected buttress'.

T-0668 **BGP - CIDH Temporary Bridge Pier Sleeve Detail** **Closed** **08/05/2013** **08/04/2013** **08/08/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-3003, A1-8711, SCCI RFI #269 with asbuilt information of CIDH Piles at First Street, and ACI 117-90 section 3.4.1.2

The typical 48" diameter bridge pier detail (6/S1-3003) and waterproofing detail (4/A1-8711, 5/A1-8711 and 6//A1-8711) are designed for a steel assembly i.e. bridge pier, piles for shoring, bracing and trestle columns, pin piles and dewatering wells. As a result, the means of achieving the shown steel pipe sleeve is attainable.

As per submittal package TG0300-201.3, the 48" temporary bridge piers are designed as CIDH (cast-in-drilled piles) piles and not steel. Specifications for concrete construction tolerances in ACI 117, section 3.4.1.2 allow for horizontal dimension of unformed members cast against soil for greater than 2 ft. but less than 6 ft. allow for +6" and -1/2".

The penetration sleeves for these piles have been fabricated.

Proposed Solutions:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Utilization of concrete piles for the bridge piers was chosen by the contractor to suit their means and methods. The sleeve shown on the architectural and structural drawings provide details of sleeving penetrations to permit expected movement and provide a waterproofing interface. Sleeves at bridge piers were indicated on the Bridge shop drawings and the requirements for field measurements before fabrication were indicated on the metal sleeve shop drawings.

New details will not be provided. CM/CG to provide means and methods of adapting concrete pier to suit mat slab waterproofing metal sleeve details.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1. Remove extra concrete from the outside diameter of the CIDH pile to allow the fabricated 48" penetrations to fit through means of bushing or grinding the concrete as necessary and utilize sleeves as originally intended.

2. Please provide a detail drawing with the 48" temporary bridge pier condition as CIDH pile. Please include a sleeve detail allowing for the aforementioned tolerances and waterproofing. Please note, as typical of CIDH piles, the surface profile varies much greater than the 1/2" gap tolerance required for steel assemblies shown in 6/S1-3003.

T-0669 **BGP - Foundation Wall Vertical CJ** **Closed** **08/06/2013** **08/16/2013** **08/09/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference: Spec Section 033020, Attached Drawings

See attached sketch of the vertical foundation wall CJ.

During construction of the high congestion mockup SCCI has discovered a constructibility issue with the construction of the foundation walls, more particularly, the vertical construction joints. Vertical construction joints are to be constructed as prescribed on Detail 2 of the S 1-3001 CD.

The designed vertical reinforcement consists of the following:
a. WR-1 with #11 vertical bars 8" OC, haunch #10 bars 8" OC, and #4 cross ties 6" or 12" OC.
b. WR-2 with #11 vertical bars 8" OC, haunch #10 bars 8" OC, and #4 cross ties 6" or 12" OC.
c. WR-2MOD (CDSM Encroachments) with #11 vertical bars 5" OC, haunch #10 bars 8" OC, and #4 cross ties 5".

When rebar configurations noted above are implemented, even with ACI allowed tolerances included, it will conflict

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option 2 will be acceptable (reduce the depth of the foundation wall vertical construction joint to 1.5").

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

with construction ofthe waterstops, hydrophilic hoses and forming of the vertical CJ.

As a possible solution to this issue SCCI suggests the following:
1. Eliminate a column of cross ties at the construction joints to allow constuction of the vertical CJs per Det. 2 on SI-3001
2. Reduce the depth of the vertical construction joint to 1.5" (similar to horizontal CJ).

Please advise.

T-0670 **BGP - Mat Slab Control Joints 2** **Closed** **08/06/2013** **08/16/2013** **08/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference: Attached Drawing

Please see attached drawing of Zone 1 control joints. SCCI would like to move the green clouded control joint around the pit with a typical 2' offest.

Please verify this change to be acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference RFI T-0670.1 for response. Contractor submitted RFI T-0670.1 while RFI T-0670.0 was still in review and the Rev 1 RFI contains the same request included in Rev 0 along with an additional location.

T-0670.1 **BGP - Mat Slab Construction Joint Conflicts** **Closed** **08/19/2013** **08/29/2013** **08/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 03 30 20, Attached Sketches

Please see attached sketches of mat slab CJ layout. SCCI has discovered conflicts between the CJ formwork and reinforcing steel, pin pile.
SCCI proposes to modify the mat slab construction joint to clear the conflicting reinforcing steel and pin pile, as shown on the attached sketches.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed CJ layout as presented in the RFI is acceptable.

Although the contractor has not inquired yet, one N-S line of shear reinforcement for the column at F-4 will conflict with the joint key. Contractor may shift this one conflicting line of shear reinforcement max of 3" to clear the key.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Is this acceptable?

T-0671 **BGP - Control Joint Amplitude** **Closed** **08/08/2013** **08/18/2013** **08/12/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3001

See attached contract drawing S1-3001 regarding vertical and horizontal control joints of the foundation walls. SCCI is requesting acceptance to eliminate amplitude on the face of the control joint keyway where hydrophilic waterstop and injection hose is to be installed. Amplitude will remain on the diagonal portions of the CJ. This RFI is intended to clarify the use of this procedure for foundation walls only.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For vertical and horizontal control joints at the foundation wall, see response to RFI T-0630.

T-0672 **BGP - Fire Management Device Layout** **Closed** **08/08/2013** **08/18/2013** **08/14/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

As discussed in the fire management coordination meeting on Monday 8/5, the contract plan device layout does not meet code for current draw. The stub ups from the mat slab to the devices shown on the contract plans at every other column will not be sufficient enough to meet code requirements for the future fully occupied space. If stubbed up at every other column, the consequences are having circuit runs that will end up doubling when the devices are added in the future. Siemens recommends that the stub ups are made at every column which will reduce the total current draw when devices are added in the future.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The fire management system of design is a performance based design as per Section 28 30 01-1.1C of the contract documents. The contractor is responsible for the design of the system, including stub ups and device layout, as required to adhere to all applicable code requirements.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0673	**BGP - Displacement of Cap Bar for Support**	**Closed**	**08/12/2013**	**08/22/2013**	**08/13/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: S1-3600, Attached RFI 069

See attached Gerdau's RFI#069

At the contractors option, Gerdau is requesting to displace one top cap bar every 5' OC within the moment frame beams for support. Allowing the displacement of one top cap bar would reduce congestion near the top of the beam.

Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI was retracted in Constructware. This RFI will be responded to internally. Per meeting between TT, WOJV and SCCI on 08/08/2013, TT rejected the proposed alternative.

T-0675	**BGP - 400 Series HRC Couplers Assembly Procedure**	**Closed**	**08/12/2013**	**08/22/2013**	**08/16/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Spec Section 03 30 20

SCCI is in receipt of the approval to SCCI's Request for Substitution TG0600-077 .1 to approve the use of HRC 400 Series Couplers at Vertical Walls. The comment on the approved Request for Substitution
noted that assembly of the couplers is to be completed using strict adherence to the manufacturer's installation procedures.

HRC, the manufacturer of the couplers has provided installation instructions, video footage of performance testing, test result and an operator qualification procedure, all supporting the assembly of
the of the 400 serious couplers installation is acceptable with "hand tightened" procedure.

Please confirm that the assembly of the 410/420 couplers "hand tight" is acceptable based on this manufacturer's recommendation as it was not directy addressed in the returned submittal comments.

Video of the performance testing can be viewed :
http://youtu.be/M5pFkjOgdN8

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As previously stated in response to the Request for Substitution, the assembly of the couplers shall be per manufacturer's installation procedures.

The manufacturer has stated that hand tightening is allowed with the use of qualified operators, therefore it is confirmed that hand tightened procedure is acceptable. Contractor shall submit operator qualifications for personnel that will be performing the hand tightened procedure.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0676	**BGP - Mat Slab Construction Joint at 3ft Chamfer**	**Closed**	**08/13/2013**	**08/23/2013**	**08/22/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Drawing S1-3201, Spec Section 03 30 20

See attached sketch of the mat slab wall CJ interface, reference Contract Drawing S 1-3201 , and RFI T- 0669. During layout of the bulkhead for the mat slab SCCI has discovered a constructibility issue with the construction ofthe mat slab CJ keyway as depicted on Detail 3 on Sl-3001 , at the mat slab interface with the foundation walls.

Reinforcement bars that are in conflict with the 10" deep keyway are:
a.# 4 U-bars as depicted on detail3 on Sl-3201. These bars are spaced 6" OC vertically and 5", 6" or 8" OC horizontally with the respect of the type of wall (i.e. WR-1, WR-2, or WR-2MOD)
b. 3ft chamfer face bars- #10 at 8" OC per detail 1 on Sl-3201

When rebar configurations noted above are implemented, even with ACI allowed tolerances included, it will conflict with construction of the waterstops, hydrophilic hoses and forming of the mat slab CJ.

As a possible solution to this issue SCCI suggests the following:
1. Eliminate a section of#4 U-bars and 3' chamfer face bars to allow constuction of the vertical CJs per Det. 3 on Sl-3001
2. Transition mat slab keyway to match the foundation wall vertical keyway at 1 1/2" depth (reference RFI T-0669).

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed Option 2 is acceptable (transition mat keyway depth for extent shown on RFI sketch).

T-0677	**BGP - Sand Oil Interceptor and Baffle**	**Closed**	**08/13/2013**	**08/23/2013**	**08/23/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference specification section 22 13 01 2.5, CD PI-6001 Rev 1 (ASI 104), and SCCI's RFI 255. Drawings do not call out nor provide details for the sand oil interceptor and baffle wall that is called out

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The pit baffles are post-installed and will be part of the TG07.2 Superstructure Concrete Package.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

in SP 22 13 01 2.5.

Please provide details for the sand oil interceptor and baffle wall.

The baffles are to be 6" thick concrete walls with #5@8" OC EA WAY, bars centered in wall. Post-installed epoxy dowel embedment depths per structural General Notes.

T-0678 **BGP - Stair 203 Embed Conflict** **Closed** **08/13/2013** **08/23/2013** **08/27/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please see attached SI-2022, SI-7004 and SI-7602. Please confirm full length L8x4xl/2 embed, as shown on detail 2 of S 1-7004 is required. This embed may conflict with future walls as shown on detail 2 of S 1-7004.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired embeds L8x4x1/2 that is called out in detail 12/S1-7602 are not required at this location as the stair landing framing shall attach directly to the TG07.2 concrete walls.

T-0679 **BGP - CDSM Wall leaks** **Closed** **08/13/2013** **08/23/2013** **08/27/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: Attached Photo, Spec Section 07 12 10

Please reference the attached photo. CDSM wall leaks above Level D bracing have created standing water on top of the Area 3 protection slab in multiple areas. The ponding water is triggering the Ad cor
ES Waterstop (see photo) along the perimeter of the excavation. SCCI has had minimal success shimming the areas of high leakage to help mitigate the water. Please review and provide direction as to
how the leaks will be mitigated. As for the repair of the Adcor Waterstop, SCCI suggests cutting and removing the activated waterstop and installing a new strip with a 4" overlap on both sides. Is this
acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The suggested remedial work by SCCI is recommended as to adhere to Article 3.07, Section D of the general conditions; SCCI to protect installed materials to prevent damage. As per the approved product data, proper confinement time restrictions are required for any premature swelling or remove and replace damaged material.

Please coordinate accordingly with WOJV for specific locations where areas of high leakage occur. As currently coordinated, SCCI is performing mitigation efforts on force account where applicable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0680	BGP -Area 7 Clear Cover to the Vertical Reinforcement on the Foundation Wall	Closed	08/14/2013	08/24/2013	08/22/2013	Potentially	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - D

Further to response to RFI T-609 (see exhibit - D) this RFI shows the areas of foundation wall in pour area 7, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

RFI T - 628.1 which shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 7.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

T-0681	BGP - Area 6 Clear Cover to the Vertical Reinforcement on the Foundation Wall	Closed	08/16/2013	08/26/2013	08/22/2013	Potentially	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - D

Further to response to RFI T-609 (see exhibit - D) this RFI shows the areas of foundation wall in pour area 6, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

RFI T - 627.1 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 6.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

T-0682 **BGP -Area 5 Clear Cover to the Vertical Reinforcement on the Foundation Wall** **Closed** **08/16/2013** **08/26/2013** **08/22/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - D

Further to response to RFI T-609 (see exhibit - D) this RFI shows the areas of foundation wall in pour area 5, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

RFI T - 626.1 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 5.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

T-0683 **BGP -Area 4 clear cover to the vertical reinforcement on the foundation wall** **Closed** **08/16/2013** **08/26/2013** **08/22/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - C

Further to response to RFI T-609 (see exhibit - C) this RFI

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Information noted. See the response to RFI T-0609.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

shows the clear cover to the vertical reinforcement on the foundation wall in pour area 4 for location plan see exhibit - A

Exhibit - B depict the amount of clear cover to the vertical reinforcement on the foundation wall in area 4, however there are no areas which will have greater than 6" of clear cover so this RFI is for information only.

RFI T - 622.1 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 4.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

T-0684 **BGP - Couplers for Future Construction** **Closed** **08/19/2013** **08/29/2013** **08/28/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference: Drawing S1-3206, Spec Section 03 30 20

See attached photo of the form savers that are going to be used for the coupler for future construction as depicted on Detail 4 of S1-3206, and Detail 6 of S1-3001.

SCCI believes that Detail 6 on S1-3001 is not applicable due to the following:
1. As shown on the attached photo, epoxy coated form savers have tin cap incorporated into the coupler body. This tin cap will protect the rebar until the future construction.
2. Whatever tar is intended to be used with form savers in not compatible with the Grace waterproofing.
3. Detail 6 on S1-3001 is a detail for the slabs, where future walls are to be constructed.

SCCI proposed to install the coupler for future construction as shown on Detail 4 S1-3206 with form savers set

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Thornton Tomasetti does not object to the contractor's proposal, contained in RFI T-0684 BGP, regarding couplers for future construction.
The proposal contained in this RFI also concerns a waterproofing system proposed by the Contractors, not the system designed by the Architect. The Contractors should have their engineer who prepared this waterproofing system design respond to this RFI. Until that is done, the Contractor should confirm all waterproofing system questions and details with the waterproofing manufacturer (with copies to the TJPA and its consultants and the Architect).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

against the waterproofing membrane. Care shall be taken to ensure that waterproofing is not damaged.

Is this acceptable?

T-0685 **BGP - North Shear Wall Concrete Mix** **Open** **08/09/2013** **08/23/2013** **08/29/2013** **Potentially** ☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached drawing regarding the North shear wall.

Due to the monolithic pours at the intersection of the shear wall, foundation wall and mat slab chamfer, there will be differentiating concrete mix uses. The attached drawing assigns the portions of this intersection with its corresponding concrete mix.

Please verify the use of these concrete mixes at this location as acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed concrete mix use at north shearwall is acceptable.

T-0686 **BGP - Drain Line Conflict with Micro Piles** **Closed** **08/22/2013** **09/01/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached photo and CD PI-2030.

After performed layout of the drainage line system around GL K5 SCCI has discovered that a row of micro piles is in conflict with the 4" cast iron pipe drain line. SCCI suggest shifting the drain line run to clear the micro piles.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In order to avoid the conflict between micropiles and drainage piping, the catch basin indicated in RFI T-0686 BGP has been relocated slightly north. The drainage piping will run straight from the catch based as it did before. Refer to the attached PSK-2030 and SKA-2822.

T-0687 **BGP - Drain Line Conflict with Reinforcement** **Closed** **08/22/2013** **09/01/2013** **09/03/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached photos and CD P 1-2030.

Tails of the bottom rebar mat at the drainage pit are interfering with the construction of drainage lines and catch basin.

SCCI proposes following:
1. Shift the catch basin to where it clears the reinforcement tails.
2. Cut the rebar tails to allow installation of the drainage lines and the catch basin.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option 2 will be allowed. Rebar tail ends that conflict with the catch basin for this location may be cut to clear the catch basin. 12" max may be cut off.

T-0688 **BGP - Pin Pile No 6 Conflict with Future Walls** **Closed** **08/23/2013** **09/02/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please refer to attached drawing S1-2052 (ASI 102), S1-3205 (ASI 100) and attached photos.

Drawing S1-2052, shows pin pile No. 6 (43"x43 block-out) at GL D.8/4 encroaching the future reinforced concrete wall (RCW). As a result, the couplers shown in detail drawing 5/S1-3205 cannot be installed in the area where the pin pile 43'x43" block-out is located.

Please confirm it is acceptable to reduce the distance between the mechanical coupler for the future 12" RCW from 8" O.C. to 4" O.C. as shown in detail drawing 5/S1-3205, The revised coupler spacing would only span a distance of three feet on either side of the block-out to compensate for the coupler that cannot be installed due to the block-out/pin pile location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Note that the wall reinforcement for this RFI is #7@12" OC each face per S1-9050 as it is labeled as a partition wall on plan as well as reflected in rebar submittal TG0600-301.2.

The OC spacing of the vertical dowels shall be 6" OC each face for a distance of 3'-0" on either side of the inquired block-out. For vertical bars within the block-out embed min 4" into concrete.

T-0689 **BSE - Micropiles in Depressions** **Open** **08/23/2013** **09/02/2013** **08/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Sketch: attached
Reference Email: attached

The micropile designer has confirmed that it is not necessary to extend the micropile to within 6" of the top of concrete and that the 5' embedment in the sump pit is adequate. Please confirm that this is acceptable to the design team.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is acceptable with the design team.

T-0690 **SSS - Stainless steel welded to cast iron** **Closed** **08/23/2013** **09/02/2013** **09/05/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: 1/S1-6056

A number of details throughout structural steel drawings indicate stainless steel welded to cast iron or mild steel, see detail 1, 2/S1-6056 as one example. If two metals are fused, cast iron welded to stainless steel results in carbon migration. The chromium in the stainless and carbon in the steel have affinity for each other at elevated temperatures that results in carbon and chromium combining to form chromium carbide. This turns the welded area into hard and brittle material with a potential for rust that overtime has a high possibility to crack and fail.

For Det. 1 and 2 on S1-6056 the added tension from cables may contribute to failure. The proposed solutions include:

1.Use stainless steel instead of mild steel for the bottom connection plate thus welding stainless steel to stainless steel. Where the bottom plate has to connect to structural steel use bolted connection with thin dielectric isolator between two surfaces.

2.Replace welded connection to bolted connection with an isolator.

3.Use galvanized and painted plate instead of stainless

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired connection can be executed in the way shown. Welding stainless steel to carbon steel is an established method, which can be done using an appropriate welding method. As with all welding methods, there are certain points to be considered, such as:

- The fabricator to be approved for welding stainless steel to carbon steel and/or cast steel (qualification submittals)

- The welder to be approved for welding stainless steel to carbon steel and/or cast steel (qualification submittals)

- Surface preparation before welding necessary (welding procedure submittals)

- Selection of weld filler material (welding procedure submittals in combination with structural design verification)

- Surface preparation after welding (welding procedure submittals)

- Coating of weld and stainless steel member 30mm beyond weld (welding procedure submittals)

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

steel plate.

Please advise.

- etc.

However, the contractor in collaboration with his engineer and fabricator are free to propose alternative solutions. Since that specific connection is a design-built detail, the contractor can submit an alternative detail with supporting documentation (structural analysis, etc.) for review by the design team.

T-0691 **BGP - FF&FL Values for Mat Slab and Concourse Slab** **Closed** **08/23/2013** **09/03/2013** **09/03/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Don Muns

REQUEST:

1. Please confirm the contract documetns (TG06.0) do not specify a FF value for the Mat Slab.

2. Also, please reference ACI 302.1R and contract specification 033020.3.6.B. ACI 302.1R does not provide any recommendations on F-numbers for broomed surfaces. Furthermore, table 8.15.3.b of ACI 302.1R (page 46) demonstrates to achieve FF value of 20 for a slab on grade, it must be a smooth, floated surface.

Please clarify if the designer intends to have a rough broom/rake finish, or intends to have the concourse slab finished to a value of 20.

3. Please confirm the concrete finish within the train box.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed.

2. (Due to the impending first mat pour, only the mat slab is addressed in this RFI response. For this particular RFI, please separate the Mat and Lower Concourse topics.)

3. See responses to 1 & 2 or identify other specific surfaces of inquiry.

T-0692 **BGP - Rebar Configuration at Moment Beam with Incorporation of S-3 vs T-9 Ties** **Closed** **08/23/2013** **09/03/2013** **08/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached detail 3 on drawing S1-3603 and attached Gerdau Sketch SK-Gerdau RFI 070.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor proposed reinforcement configuration for the lower concourse moment frame beam transverse reinforcement is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm it is acceptable to install S-3 stirrups and one T-9 tie as shown in the attached sketch for the vertical ties in the moment frame beam in lieu of installing all T-9 ties as depicted in detail 3/S1-3603. The proposed concrete reinforcement configuration is needed to avoid the constructability issues associated with alternating the hooks under the 1.5" of clear cover beneath the bottom beam bars.

T-0693 **BGP - Conduits in Columns** **Closed** **08/23/2013** **09/02/2013** **08/27/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

From discussions with the Design Team, we have been informed that a number of columns will have post installed steel jackets. Columns with Fire Management and steel jackets will require the conduits and j-boxes to be embedded. It is noted that the jackets will not be full height, so the j-boxes will be flush with the concrete face.

Please provide the locations of the affected columns and a height for the boxes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AAI response: Refer to the attached sketches SKA-2808R1, SKA-2809R1, SKA-2811R1 showing the locations of the West End B2 level concrete columns which will receive post installed steel jackets and embedded conduits. The attached SKA-2817R2 shows the mounting height of the surface mounted electrical boxes for these columns.

WSP response: On the steel jacketed columns, backboxes will be surface mounted with conduit routed within the column. Conduit will exit the column terminating into the back of the surface mounted box. Contractor shall lay out and route the embedded conduits such that the number of bends between boxes does not exceed code (360 degrees between boxes). These embedded conduits shall not be required to follow building column lines, and direct runs between devices shall be acceptable to avoid intermediate junction boxes.

T-0693.1 **BGP - Embedded Conduits in Columns** **Closed** **09/04/2013** **09/14/2013** **09/05/2013** **Potentially** ☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

In the MEP meeting on 9/4/13, the response to RFI T-0693 was clarified. To confirm conversations with the WSP Electrical Design representative, the only conduits to be embedded in columns per the RFI T-0693 response are to be fire management conduits per the locations depicted in the response. All other conduits (power recepticals etc) are to be stubbed up on the face of the columns and are not to be embedded in the column.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

With reference to RFI T-0693, all other conduits (power receptacles etc.) are to be stubbed up adjacent to the face of the columns and are not to be embedded in the columns. The conduits and receptacles will be surface mounted on the post-installed steel jackets.
Note that the conduits are to be stubbed up with 5" between the conduit face and the concrete column face, to allow for the post-installation of the steel jackets. There are also plumbing risers on a number of the steel jacketed columns. The pipe risers should be positioned relative to the columns in accordance with the plumbing documents, but should not be closer than 5" to the concrete column, to permit post installation of the steel jackets.

T-0694	Additional Rebar Conflict for Plumbing Trim at GL2/D.4	Closed	08/26/2013	09/03/2013	08/27/2013	Potentially ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawings 1/A1-2122, 1/S1-3501 and attached Gerdau sketch SKS-1

Due to the density or the typical N-S top mat bars (#10) and additional bars (#11) near the elevator pit at Gridlines 2 and D.4, the additional trim rebar per 1/S1-3501 for interrupting the bars over the plumbing opening cannot be installed to the East of the plumbing opening within 3" of the opening. The alternative solution would be to install the additional steel in a new layer below the top mat; however, due to proximity of the piping to the steel the bars cannot be placed below the top mat. Gerdau proposes the folloing options:

A. Omit the additional trim bars to the East of the trimmed opening.
B. Relocate the additional trim bars approximately 3'-0" East of the opening where the rebar spacing would allow for additional steel.

Please advise if proposed options are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed option to omit additional trim bars to the east of the trimmed opening is acceptable for the cut plumbing opening at Grid 2/D.4. Added trim bars to the west of the opening will remain as placed.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(see attached SKS-1)

T-0695 **BGP - Additional Rebar Conflict for Floor Sink Trim GL B.7/2.7** **Closed** **08/26/2013** **09/02/2013** **08/27/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

See attached Gerdau's RFI #72, 1/S1-3501, A1-2122, attached Gerdau sketch SKS-1

Due to the density of the typical N-S top mat bars (#10), additional N-S top mat bars (#11) and pin pile trim steel (#11 with lap splices directly over floor sink) near the floor sink at Gridlines 2.7 and B.7, the additional trim rebar per 1/S1-3501 for interrupting the bars over the plumbing opening cannot be installed on either side of the plumbing opening. The alternative solution would be to install the additional steel in a new layer below the top mat; however, due to the proximity of the plumbing piping to the steel the additional bars cannot be placed below the top mat. Also, the additional bar to the East of the opening would conflict with the pin pile. Gerdau proposes to cut top mat bars to allow for the floor sink installation and omit the additional trim bars.

Please advise if the proposed solution is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per SKS-0282 (attached),

Pin pile add bars will be calculated as ½ the number of interrupted bars each side in lieu of ½+1 bars. This eliminates (2) pin-pile add bars being interrupted by the drain.

One wall add bar interrupted by the drain will be cut short at the northern limit of the drain and not be considered interrupted by the drain.

Reinforcing west of the drain centerline, but within the cut zone, will be jockeyed west so that no bars are required to be cut.

Reinforcing east of the drain centerline, but within the cut zone, will be jockeyed east so that no bars are required to be cut.

A single typical mat bar will remain within the cut zone and may be cut.

Congested reinforcing east of the cut zone will be jockeyed east aided by the partial (or complete) removal of a plumbing add bar.

Clear spacing of 1db to be maintained between all bars except where lap spliced.

In displacing bars to achieve the configuration shown in the SKS, resulting non-contact lap splices will be tolerated up to 6".

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0696	**SSS - Type 1 Drag Connection Angles**	**Closed**	**08/26/2013**	**09/05/2013**	**08/29/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2502, S1-2503, S1-2504, S1-2505, S1-2506, S1-2507

The angles shown in the bus deck plan views (drawings S1-2502 through S1-2507) for the Type 1 drag connections to the bus deck cast nodes do not appear to match with the corresponding angles shown on the casting drawings (drawings S1-5121 throughS1-5125).

The attached mark-ups show our fabricator¿s (Oregon Iron Works) attempt to calculate the angles on the bus deck plan views and compare them to the corresponding angles of the castings.

Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Beam plan angles (Sheets S1-2502 through S1-2507) and Bus Deck casting angles (S1-5121 through S1-5125) will not match in all cases because some casting types are used at multiple locations as indicated in Sheet S1-5120. The design intent was to minimize the number of unique castings in the structure which is more cost effective than developing unique casting geometry for every joint. For example, as indicated Sheet S1-5120, Casting 21A is used at various different joints at which joining beam angles vary in a certain range. The pad widths on the castings have been designed to be wide enough so that beams with different plan angles can be connected to the casting.

In some other cases, the casting angles were revised during cast node shop drawing review. For example, for Casting 35B one of the plan angles was changed from 42.25 to 26.14 degrees to match the beam angle. Contractor shall coordinate the information in the drawings with those in cast node shop drawings.

T-0697	**BGP - Moment and Spandrel Beams 180 Degree Hooks Versus 135 Degree Hooks**	**Closed**	**08/26/2013**	**09/06/2013**	**08/30/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

See attached Gerdau's RFI#068, S1-3600, S1-3410

At the contractor's option, Gerdau is requesting to change the 135 degree hooks on the Moment Frame and the Sprandrel Beam stirrups to 180 degree hooks.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractors proposal to replace the 135 degree hooks with 180 degree hooks on the Lower Concourse Moment Frame Beam and Spandrel Beam Perimeter Stirrups is acceptable.

T-0698	**SSS - Clash Between Slab on Deck and Transfer Girder**	**Closed**	**08/26/2013**	**09/05/2013**	**08/28/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Drawings: A1-2863, S1-2303, S1-5000
Reference Sketch: attached

There are many conflicts in the plans where the top of concrete and the top of the transfer girder in that given area does not leave the amount of space required under the Metal Deck Schedule on 2/S1-5000.

For Example: Using the Top Of Concrete (TOC) and Top Of Steel (TOS) elevation from sheet S1-2303 a clash occurs between the slab (S3 - TOC: 19.00') and Transfer Girder TR9 (TR9 - TOS: 18.37'). The 10" that the S3 deck requires in the Metal Deck Schedule on 2/S1-5000 cannot be maintained over the Transfer Girder. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to details that have been cut on plan across the transfer girders as applicable in the Superstructure IFC/ASI 105 issue.

Example: See section detail 8/S1-3705 that is cut at gridline 9 & D.4 on S1-2303 (included in the RFI).

T-0699 **BGP - Catch Basin Requirements** **Closed** **08/27/2013** **09/06/2013** **09/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

See attached page from DBI's standard catch basin detail, and reference drawings P1-6001 and P1-2022 thru 2030.

On 08/26/2013 during pressure testing inspection of the drainage lines in mat slab areas 1 and 2, the SFDBI Plumbing Inspector pointed out that all catch basins in the mat slab should be constructed per city standard catch basin details. However, the contract drawings do not show catch basins details with cleanouts, vents and trap primer connections per the City Standard details.

Please confirm the attached SFDBI city standard catch basin detail is to supersede all catch basin details currently shown in trade group package TG06.0 drawing set. Please include revised plumbing drawings incorporating the CIty Standard details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed in our review meeting with the SFDBI Plumbing Inspectors, the catch basin which are actually points of collection, will be installed as shown on contract documents.

T-0700 **BGP - Vehicle/Bike Beam End Support Embed** **Open** **08/27/2013** **09/09/2013** **08/28/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference attached drawing S1-3411 .

The corbel section detail I of sheet S1-3411 calls for a 3/4"x4"x 18" embed plate at the toe of the corbel. However, the embed detail in 1D/S1-3411 shows the embed width at 24".

Please clarify the embed width dimensional discrepancy: 3/4"x4"x18" or 3/4"x4"x24". Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired embed width is 24" as shown in detail 1D.

T-0702 **BGP - Chamfer Bar Top Hook** **Open** **08/29/2013** **09/08/2013** **08/29/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

See attached Gerdau's RFI#74.
See attached SKS-74

In an effor to prevent the chamfer bar from encroaching on the existing shoring waler beams, Gerdau would like to propose over bending the top hook and turning it into a standard 180 degree hook as shown on the attached sketch.

Please advise if this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed 180 degree hook for the chamfer bars that are in conflict with double shoring walers is acceptable for bars that have not been fabricated. The radius point for the bend shall remain located as originally detailed on 1/S1-3201.

T-0703 **BGP - Drainage Conflicts with Reinforcement** **Closed** **08/29/2013** **09/08/2013** **09/05/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

See attached marked up contract drawings PSK-2022 and S1-3005

Some of the drainage lines and fixtures are designed to be constructed in close proximity of the concrete columns, similarly S1-3005 depicts typicall mat shar reinforcement schedule and details. Some of these shear reinforcement bars will be interfering with the drainage lines and fixtures.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

General guidelines for displacement of headed reinforcing at plumbing conflicts are as follows:

Lines refer to heads that are perpendicular to a column face.

1) Any head in line can be displaced 4" in any direction provided that it is not the first head. First

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

SCCI suggest to displace these shear reinforcement bars where conflicts occur. Displacement would occur lateraly, in 8" increments, governed by the grid of the mat slab main reinforcement bars.

Please advise.

heads can only be displaced away from the column or parallel to the column face.

2) The maximum spacing of heads in a line shall be 12".

3) The minimum spacing of heads in a line shall be 4".

4) Any line can be started 8" along that line from the previously intended starting position provided the displacement is away from the column.

5) Any line or group of lines can be displaced laterally such that all lines are within the projection of the column face and the centroid of the resulting group is within the middle third of the projection of the column face.

6) The minimum spacing between adjacent lines shall be 4"

7) The maximum spacing between adjacent lines shall be 24".

All locations with displaced heads shall be observed by Thornton Tomasetti's field engineer prior to inspection.

T-0704 **SSS - Domestic Manufactured W40x503** **Closed** **08/29/2013** **09/08/2013** **09/03/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2505, S1-2506, S1-2507, S1-5050

We have determined that W40x503 is not produced Domestic melted and manufactured. This size girder occurs in 12 locations at the Perimeter Bus Deck Level between grid lines 21 and 33.

This beam is available from import sources, or it can be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

W40x503 may be replaced by a built-up wide flange with steel plates. The plates shall match the dimensions of the rolled shape.

Please be noted that the W40x503 are not only used at Bus Deck between Grid 31 and 33. They are also used at the ground level drag beam along Grid C & G.

Skanska and W/O please provide information on how

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

built up from domestic plate.

6/S1-5050 gives an option for W14 built up columns but does not give an option for W40 columns.

please advise

the bid was certified to conform to the Buy America clause.

T-0704.1 **SSS - Built Up Plate Fabrication for W40x503** **Closed** **09/16/2013** **09/26/2013** **09/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference RFI: T-0704

The built up beam will consist of 1 9/16" webs and 2 3/4" flanges. Please confirm that these plate sizes are appropriate.

The web to flange weld was not addressed on returned RFI T-0704. We would suggest a 3/8" double fillet weld to join the web and flanges.

Please confirm or provide an alternate detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Flange and web thicknesses are confirmed. The beams shall be 42" deep, the flanges shall be 16-3/8" wide. The plates shall be ASTM A572, GR 50 per General Notes SS-1. Web to flange welding shall be with double 5/8" fillet welds for 4 ft from each end of each flange plate and double 3/8" fillet welds in between.
W40X503 are also used at Roof and Ground Levels.
W/O to coordinate RFI T-0704-SSS and T-0704.1-SSS responses with other sub-contractors, as needed.

T-0705 **BGP - Haunch Reinforcement at Double Waler Condition** **Closed** **08/29/2013** **09/08/2013** **09/02/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc John Berggren

REQUEST:

Please refer to attached drawing 1/S1-3201 attached Photo SCCI-RFI 305.

As per field coordination, the double shoring waler condition, where the waler web is lower than that of a single waler, the tail of the #10@8" (reference attached excerpt drawing BM-3t of submittal package TG0600-301.1) haunch reinforcement interferes with the web of the shoring waler.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The revised haunch reinforcement clear cover as described in the RFI per field coordination is confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The condition was observed at Grid 2/ A and will likely repeat at other double waler locations. The typical resolution to the condition shall be to adjust the position, where required, so that the interfering tail clears the double waler web. As a result
the 1-1/2" clear cover will deviate up to 4-112" of clear cover. The plan location of the tail shall remain as close as possible per the placement drawings. See the attached Photo for further details.

The 1-1/2" clear spacing shall remain at locations unaffected by the reduced clearance of the double-wlaer. For pieces not yet fabricated and delivered, please refer to RFI T-0603 as the proposed solution to conform to the 1-1/2" clear cover.

Pleases confirm the revised haunch reinforcement clear clover as coordinated in the field is acceptable.

T-0706 **BGP - Locations of Electrical Outlets, Equipment, and Fixtures** **Closed** **08/30/2013** **09/09/2013** **09/13/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Per the RFI response, please find attached the revised layout for the Electrical Room B2221. This revised layout shows the dimensions off of the interior walls as requested.

Please advise if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per the Pour #1 RFI coordination meeting on 9/5/13, W/O is to resubmit RFI with revised sketch. Refer to RFI T-0665.2 submitted on 9/12/13.

T-0707 **BGP - Spandrel beam modifications in Area 1 & 2** **Closed** **08/30/2013** **09/09/2013** **09/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - C

Further to response to RFI T-637 please find attached

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/9/2013
RESPONSE:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

proposed changes and details to the spandrel beams in pour area 1 & 2 for location plan see Exhibit - A and B

Exhibit - B shows the extent of the modifications necessary due to the foundation wall offset and changes made to wall reinforcement due to CDSM encroachment.

Exhibit - C shows the transition between modified reinforcement to contract reinforcement at spandrel beam as well as cross sections of the original design and the proposed modified beam detail.

RFI T-448.5 and T-608 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 1 and 2.

RFI T-576 shows the revised location of the foundation wall on the west elevation of area 1.

Please confirm that these modification as outlined at these locations are acceptable.

Contractor proposed modifications to the Lower Concourse spandrel beams within Area 1 and 2 are acceptable.

T-0708 **BGP - Spandrel Beam Modification in Area 3** **Closed** **09/03/2013** **09/13/2013** **09/11/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A & B

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour area 3 for location plan see Exhibit - A

Exhibit - B shows the extent of the modifications necessary due to the foundation wall offset due to CDSM encroachment.

RFI T - 621.1 shows the revised location of the foundation wall on the north elevation of area 3 due CDSM pile encroachment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/11/2013
RESPONSE:
Contractor proposed modifications to the Lower Concourse spandrel beams within Area 3 are acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

RFI T - 576 shows the revised location of the foundation wall on the west elevation of area 3 again due CDSM pile encroachment.

Please confirm that this modification as outlined at these locations is acceptable.

T-0709 **BGP - Mat Slab Added Steel Interference** **Closed** **09/03/2013** **09/16/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Drawing S1-3003 and Spec Section 03 20 00
See attached Gerdau Sketch SK-77, BM-3b, BM-3t

Due to the location of select trestle and pin piles, the #9@16" (bottom mat) and #11@16" (top mat) added North-South layer reinforcement cannot be installed at the desired spacing. The proposed solution is to cut the added #9 or #11 bars, where interrupted by a pile, and add a hook of equal size or greater (#11 hook max) with a lap splice similar to the hooks used for the trestle and pin pile trim steel.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The rebar conditions for bars at pin/trestle piles are addressed in typical details 2 & 3 on S1-3003 as well as details 4 & 7 on S1-3009 - these also apply to the inquired add bars in the RFI. The contractor-proposed use of spliced hook at these locations is acceptable.

T-0710 **BGP - Haunch Reinforcement Alternative Detail at Dewatering Well in Area 3** **Closed** **09/03/2013** **09/16/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Drawing: S1 -3201
Reference Spec: 03 20 00
Attached Gerdau Sketch: SKS-76.1, SKS-76.2, SKS-76.3

A portion of the #10 @ 8" haunch bars cannot be installed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At conflicts with dewatering wells, the tail of the haunch bar may be terminated as shown in Gerdau SKS-76.3 contained in the RFI. The embedment length for #10 headed bar shall be 18¿. Alternatively, the embedment may be a straight development, either

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

as fabricated due to conflicts with overhead obstructions (shoring walers and struts) and the dewatering well sleeves. Per discussions with Sean McNeil where bars cannot be installed due to the obstructions, a modified #1 0 haunch bar with an HRC 555 head can be installed in place ofthe typical haunch bar. The attached sketches (SKS-76.1 and SKS-76.2) depict the magnitude ofthe obstructions at the dewatering wells in Area 3.

Please confirm if this is acceptable.

Additionally, please provide the required embedment length for the headed tail of the modified haunch bar.

inclined or vertical, of 42¿. The 180 degree hook at the top of the bar shall comply with the RFI T-702 BGP response regarding the location of the radius point.

T-0711 **SSS - Radius Change Request for LC301** **Closed** **09/03/2013** **09/13/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

A design change on the light column critical type LC301 (CN0058) node has changed the radius between the body and the lifting bracket from the original two inches to one inch. We would like to formally request a change to a minimum of a two inch radius in this location. A one inch radius on the 301 bracket creates the following manufacturing challenges:

A. The sand in the 1 inch radius in the mold will superheat and cause burn in/on sand adherence to the casting causing additional grinding and work in the finishing department to meet visual acceptance criteria.

B. The sharper radius will create a hot spot and solidification challenges - liquid metal contracts % inch per foot and silica sand expands 1.2% during solidification and as cast hot tear potential in the radius may occur causing welding, grinding and blending. This again will be to meet the visual acceptance criteria.

C. With a 2 inch radius the appendage (lifting bracket) will be much closer to thermally neutral reducing solidification stresses and potential shrinkage in the section radius.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed 2" fillet radius between the main body of casting LC301 and its side fin is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

D. Cosmetically a 2 inch radius will look much more presentable in the as cast state.

E. The 1 inch radius will require either chill sand in the radius, a metal chill made in the mold, or solidification cracking brackets as heat sinks to equalize the solidification temperatures and add strength to prevent hot tearing during solidification. Additional grinding of these areas will be necessary to meet visual acceptance criteria.

F. Items A, B, and E will add costs to the manufacturing process of the casting.

Our purpose is to point out the effects of the 1 inch radius design request and make sure that the designers are aware of the potential impact of having the smaller radius versus the 2 inch radius in the original designs that were reviewed. Bradken Atchison can certainly produce the 1 inch radius and manage the effects the 1 inch radius causes, but producing that design will have cost impacts to the casting process.

T-0712 **BGP - Jitter Bug Finish on Mat Slab Surface** **Open** **09/03/2013** **09/13/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Spec Section 033020.3.6.B.l.c.
See attached photos for a visual reference.

Please reference TG06.0, BGP contract specifications 033020.3.6.B.l.c. SCCI is proposing to finish the top surface of the Mat foundation Slab, as a "Jitter Bug" finish. All other finishing requirements will remain the same.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed ¿Jitter Bug¿ finish is not acceptable. Future requirements for the train bed are unknown and the proposed finish may not be acceptable in some instances. Use the stiff broom finish per specification section: 03 30 20.3.6.B.1.c

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T-0713 **BGP - Spandrel Beam Modifications in Area 4** **Closed** **09/05/2013** **09/15/2013** **09/16/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Documents: Exhibits A - B

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 4 for location plan see exhibit - A.

Exhibit - B shows the plan view of the modification necessary to the spandrel beam due to the revised reinforcement width of the foundation wall as well as typical cross sections.

RFI T - 622.1 shows the extent of the modification to the foundation wall on the north elevation of area 4.

Please confirm that this modification as outlined at this location is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/13/2013
RESPONSE:
Contractor proposed modification to the Lower Concourse spandrel beam within Area 4 is acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from 7-1/16 inch spacing to 6-1/2 inch at each side of the encroached wall region.

T-0714 **BGP - Area 3- Partition Wall Pier Rebar Conflict With Plumbing Near GL3/C.3** **Closed** **09/03/2013** **09/13/2013** **09/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

See attached Gerdau's RFI #078.

Near Gridlines 3/C.3, there is a conflict between the partition wall pier dowels and the installed 6" pluming pipe (8" with insulation). The wall pier currently overlaps with the plumbing pipe by approximately 6". Gerdau proposes to move the wall pier to the East, or West to allow the dowels to clear the pipe.

Please provide the acceptable direction (East or West) to shift the wall pier.

Please note that there are conduits stub up on the East side that would need to be moved, should the opening is shifted towards the East.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 2 corner bar dowels of the pier that are in conflict with the pipe may be minimally bent to clear the pipe.

Non-corner vertical bar dowels within the pier that are in conflict with the pipe may be shifted to clear the pipe.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0715	BGP - Adjustment to CB location	Closed	09/03/2013	09/13/2013	09/04/2013	Potentially	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

We understand from Design Team small adjustment to the locations of CBs at GL 1.8, J ; GL 7.2, C.3 and GL 10.2, B.5 are required.

Please provide dimensions for the modified locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the attached SKA-2820 and SKA-2821 for the modified locations of the CBs indicated in RFI T-0715 BGP.

T-0715.1	BGP - Adjustment to CB location	Closed	09/04/2013	09/14/2013	09/05/2013	Potentially	☐

From: Webcor Construction LP Spencer Sayles **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to attached drawing SKA-2820 and A1-2812 dated 04/29/2013.

As per design coordination meeting between SCCI, WOJV, AAI and TT, please confirm it is acceptable to omit SKA-2820 provided in RFI T-0715. Due to the timing of the issuance of this change, the Area 3 mat slab pour would be delayed by at least a week because the catch basin is already installed per drawing A1-2812, tested and inspected by DBI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to omit SKA-2820 provided in RFI T-0715.

T-0716	BGP - Haunch Reinforcement Alternative Detail	Closed	09/03/2013	09/13/2013	09/03/2013	Potentially	☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

See attached Gerdau's RFI #79.

The RFI Response to RFI T -0702 stated that the 180 degree hook chamfer bars are acceptable where the bars conflict with the double shoring walers. The intent of the RFI was to request the use of the 180- degree hook for the chamfer bars throughout the structure regardless of whether or not the bars were below a double or single walers.

Please confirm that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per RFI 702 response, contractor-proposed 180 degree hook for the chamfer bars that are in conflict with double shoring walers is acceptable for bars that have not been fabricated. The radius point for the bend shall remain located as originally detailed on 1/S1-3201.

At contractor's option, the same bars may be used at any haunch location and are not restricted to the double walers.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0716.1	**BGP - Haunch Hook Embedment Clarification**	**Closed**	**10/08/2013**	**10/18/2013**	**10/10/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to RFI T-0716 and drawing detail 1/S1-3201.

As per field review by SCCI, Gerdau and TT Field Engineer, the embedment lengths of the haunch hooks (see RFI T-716) provided average 35" but are no less than 29". The embedment lengths are measured from their intersection with the wall interior reinforcing curtain as shown in the attached Gerdau sketch SK-094. Please confirm the embedment lengths are acceptable as discussed with TT field engineer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/9/2013
RESPONSE:
The haunch hooked embedment lengths as described in the RFI are acceptable.

T-0717	**BGP - Spandrel Beam Modifications in Area 5**	**Closed**	**09/09/2013**	**09/19/2013**	**09/17/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Michael Spillane

REQUEST:

Reference Documents: Exhibits A - B

Further to response to RFI T-637, please find attached proposed changes to the spandrel beams in pour Area 5 for location plan see Exhibit- A

Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north elevation due to the revised reinforcement width of the foundation wall as well as typical cross sections. The spandrel beam on the south elevation will be installed as per contract drawing with no modifications necessary.

RFI T-626.1 shows the extent of the modification to the foundation wall on the north and south elevations of area 5.

Please confirm that this modification as outlined at this location is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
Contractor proposed modification to the Lower Concourse spandrel beam within Area 5 is acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from 7-1/16 inch spacing to 6-1/2 inch at each side of the encroached wall region.

T-0718	**BGP-Spandrel Beam Modifications in Area 6**	**Open**	**09/11/2013**	**09/21/2013**	**09/19/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Documents: Exhibits A - B

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 6 for location plan see exhibit - A

Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north and south elevations due to the revised reinforcement width of the foundation wall due to encroachment of the CDSM beams as well as typical cross sections of the spandrel beam. RFI T - 627.1 shows the extent of the modification to the foundation wall on the north and south elevations of Area 6.

Please confirm that this modification as outlined at this location is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/18/2013
RESPONSE:
Contractor proposed modification to the Lower Concourse spandrel beam within Area 6 is acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from 7-1/16 inch spacing to 6-1/2 inch at each side of the modified cross-section.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0719	**BGP - Spandrel Beam Modifications in Area 7**	**Open**	**09/16/2013**	**09/26/2013**	**09/19/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Michael Spillane

REQUEST:

Reference Documents: Exhibits A - B

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 7 for location plan see exhibit - A

Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north and south elevations due to the revised reinforcement width of the foundation wall due to encroachment of the CDSM beams as well as typical cross sections of the revised spandrel beams.
RFI T - 628.1 shows the extent of the modification to the foundation wall on the north and south elevations of Area 7.

Please confirm that this modification as outlined at this location is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/18/2013
RESPONSE:
Contractor proposed modification to the Lower Concourse spandrel beam within Area 7 is acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from the spacing in the construction drawings to the modified spacing at each side of the modified cross-section.

T-0720	**BGP - Electrical Design Intent for Typical Train Platform Drawings**	**Void**	**09/04/2013**	**09/14/2013**	**09/05/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

The electrical plan drawings that are noted for reference only in the For Construction - Below Grade Package drawing set dated 08/30/2012 include, but not limited to: E1-2102, E1-2103, E1-2104, E1-2105, E1-2106, E1-2107, E1-2110, E1-2204, E1-2206, E1-2207, E1-2210, E1-3101, E1-3102, E1-3201, E1-3202, E1-3203, and E1-5201. As discussed between F&K, SCCI and WOJV on Wednesday, September 04, 2013, SCCI has not installed or accomodated for any electrical conduits that may be required for devices shown in the aforementioned drawings due to the note "For Reference Only." As requested by F&K, this RFI is being submitted to review design intent.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed internally, F&K to pursue FCR process.

T-0721	**BGP - NW Corner Wall Intersection Horizontal and Haunch - Area 3**	**Closed**	**09/04/2013**	**09/14/2013**	**09/04/2013**	**Potentially**	☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Drawing: 3/S 1-3001
Reference Spec: 03 20 00

Per field coordination with the on-site structural engineer the following conditions are to be confirmed as acceptable:

1. In the Northwest comer of Area 3, comer bars matching the size, spacing and lap splices of typical horizontal reinforcing are installed in-lieu ofbent typical horizontal bars. See Bar A in sketch FC-1

2. In-lieu of hooked haunch horizontal bars, straight bars of the same size have been installed with the required embedment. See Bar B in sketch FC-1.

3. At the intersection of the North and West haunch bars, the haunch bars along the North (Bar D) wall have been trimmed at the approximate intersection with the West (Bar C) haunch bars. Reference sketch FC-2. The observed condition is acceptable, but at future locations within the intersection of two haunches the detail for BarE will be used unless BarD already has 42" of embedment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The field conditions as described in the RFI are confirmed as acceptable.

T-0722	BGP - Haunch Reinforcing Intersection with Dewatering Wells	Closed	09/04/2013	09/04/2013	09/04/2013	Potentially ☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference drawing: 1/S1-3201
Reference spec: 03 20 00

Per field coordination with the on-site structural engineer the following conditions are to be confirmed as acceptable:

1. In Area 3 along Gridline A, the haunch bars have been trimmed at the approximate intersections with the bottom mat. See sketch FC-3

2. In Area 3 along Gridline 1, (2) haunch bas have been trimmed at the approximate intersection with the top mat with no embedment. See sketch FC-4.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The field conditions as described in the RFI are confirmed as acceptable. Regarding potential future conflicts with dewatering wells, refer to RFI T-0710 BGP response.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

At future locations where dewatering wells interrupt haunch bars, use detail for bar E in sketches FC-3 or FC-4 if the haunch bars do not have 42" of embedment into the mat slab.

T-0723 **BGP - Couplers for Future Walls** **Pending** **09/05/2013** **09/13/2013** **09/05/2013** **Potentially** ☐

From: Webcor Construction LP Marina Rosso **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Reference Det. 6 on S1-3001
See attached photo of the form savers that are going to be used as couplers for future walls.

As discussed in area 3 Mat Slab meeting on 9/4/2013 SCCI is proposing to installing all formsavers for future walls in the Mat slab flush with the top of the Mat slab, to EL -35.67'.
As shown on the attached photo, epoxy coated form savers have tin cap incorporated into coupler's body. This tin cap will protect the rebar until the future construction, and will substitute "tar" shown on Det. 6 on S1-3001.

Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Epoxy-coated form savers shall be installed at the top of the mat slab as discussed on site in the RFI for locations where Detail 1/S1-9051 is applicable and may remain attached to the field observed 2x12 lumber, which shall be chaired to the target elevation. The form-saver/ lumber assembly is not applicable to any wall where there is a keyed joint or waterstop, such as the water tank walls. The arrangement is not acceptable for any "future wall" where the form-saver warranty will not cover corrosion protection for the construction interval without supplementary surface measures to be approved by the design team.

T-0724 **BGP - CDSM Soldier Pile Encroachment Area 8** **Closed** **09/06/2013** **09/16/2013** **09/17/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - I

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south wall in mat slab pour Area 8 as well as all levels of the encroachment into the foundation wall between CDSM piles 133 to 164 on the north elevation and 618 to 650 on the south elevation for Location Plan see exhibit - A

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/16/2013
RESPONSE:
The contractor proposed revisions to foundation wall reinforcement due to encroaching CDSM Piles 146, 158, 161 and 632 are acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Exhibit - B, & C depict the location and degree in which the SP are encroaching

WOJV proposal North elevation on gridline A:
(See Exhibit - B & Exhibit - F) Between CDSM piles 145 to 147 and 157 to 159 WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 146 & 158, originally these were WR1 reinforcement area's #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.1 (Exhibit - D).

Between CDSM piles 159 to 162-163, WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 161. This foundation wall area was originally a WR2 reinforcement area (#11@6"oc EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit -E).

WOJV proposal on the South elevation:
(See Exhibit - B) Between CDSM piles 631 to 635, WOJV is proposing to decrease the specified 36" wall thickness to 33 5/8" to clear the encroaching SP 632. This foundation wall area was originally a WR2 reinforcement area (#11@6"oc EF vertically) and would change to #11@5"OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on SE stamped Detail A/Sk.3 option 2 (Exhibit - E).

In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.

See Exhibit- G, H & I shows details of transition between modified reinforcement to contract reinforcement.

These solutions if approved would be incorporated into the TG06 shop drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm if these solutions would be acceptable.

T-0725 **BGP- CDSM Soldier Pile Cut-Off** **Closed** **09/06/2013** **09/16/2013** **09/18/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In Detail 2/A1-8710 (see attached) it's not clear as to the final cut-off elevation for the CDSM wall shoring piles. Currently CDSM shoring piles extend up past the existing grade and future TG12.1 Civil Site Work Trade Contractor will be responsible for cutting off the CDSM wall shoring steel piles to the final elevation. WOJV propose that the cut-off elevations for the shoring piles be established at 3" above the train box lid i.e. at the top of concrete protection slab. See attached sketch SK -1.

If the shoring piles are to be cut off below the train box lid as currently shown in detail 2/A-8710, the waterproofing membrane could be compromised by the heat generated by the cutting torches which will have to be used to cut these large steel piles, also this detail does not address the instances where the shoring wall is shared with further new projects i.e. 181 Fremont street in Zone 4 and 101 1st street in Zone 3.

It is preferable that the shoring piles be cut-off 3" above the top of the train box lid to ensure that the waterproofing system isn't compromised and omits the need to pothole around 861 CDSM piles which are in close proximity to adjacent property and live traffic.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
The soldier piles are within the City Public Right of Way. Obstructions either have to be at least 4' below the surface or be protected with 1" thick steel plates (similar to the Train Box Lid). Leaving the soldier piles in this Public Right of Way may compromise agreements that have been established with the City.

Either the piles will need to be cut down below the 4' depth entirely or the vertical flange adjacent to the Train box is left in place and the opposite (outside) flange and the web are cut down to 4' below the finished surface. Leaving the inside flange in place to the top of the Train Box Lid could facilitate support for the vertical waterproofing assembly.

T-0725.1 **BGP- CDSM Soldier Pile Cut-Off** **Closed** **09/30/2013** **10/10/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Further, in response to RFI T-725, WOJV requires the cut-off elevations for the 861 CDSM piles around the perimeter of the train box taking into account but not limited to, San Francisco city requirements for beam cut off in a public right of way, the elevation of utilities entering the train box structure, bridge structures and ramps as well as pedestrian stair towers 201A and 201 B and passenger elevator 201 foundations on the west side of Zone 1.
Another item which will also need to be taken into account is where the CDSM shoring wall is shared with adjoining Projects i.e. 181 Fremont Street in Zone 4 and 101 1st street in Zone 3.

This information once provided will but used as part of the future trade packages TG07.2 Concrete Superstructure and TG12.1 Civil Sitework scopes of work.

Please provide in tabular format a list of the final cut-off elevations for each individual CDSM pile around the perimeter of the train box.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE: RFI T-0725.1 BGP- CDSM Soldier Pile cut-off

George Metzger
10/11/2013
RESPONSE:
Per Design Review Meeting discussion on 10/09/2013, TJPA (ES) stated to reject the RFI as it is not construction related and will be addressed with W/O within the bidding documents.

T-0726	BGP- Trestle pile No 6 in comflict with beam at Lower Concourse Level	Open	09/09/2013	09/19/2013	09/20/2013	Potentially ☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: Webcor Construction LP Michael Spillane
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Following a review and discussion on the trestle pile location, it has been noted that trestle pile number 6 (see sketch attached) is in conflict with a beam (B45) at the lower concourse slab elevation between gridline 5-6, E-F. The contractor is proposing to blockout a section of slab as shown on the sketch, this blockout section would then be infilled once the trestle pile has been removed.

The contractor is to insure that the appropriate reinforcement lap splices are present between these concrete pours.

Please confirm if this option would be acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/20/2013
RESPONSE:
This approach is acceptable. Please submit detailing in reinforcement submittal for review.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0727	BGP - Area 8 Clear Cover to the Vertical Reinforcement on the Foundation Wall	Closed	09/09/2013	09/19/2013	09/18/2013	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Michael Spillane

REQUEST:

Reference Documents: Exhibits A - E

Further to response to RFI T=0609 (see exhibit - D) this RFI shows the areas of foundation wall in pour area 8, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see Exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement.

RFI T-0724 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 8.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

T-0728	BGP - Column Shear Reinforcement and Bump-Out Pile Interference at GL G/15 in	Closed	09/10/2013	09/20/2013	09/13/2013	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor/Obayashi Joint Venture Bob Garcia

REQUEST:

Please refer to attached drawing S1-2024 (dated 11/27/12), S1-3005 (dated 08/3012) and attached Shimmick sketch SK-SCCI 316.

Per field measurements, the 36" bump-out trestle pile near gridlines F.7/15 interferes with the nearby column shear reinforcement at gridlines G/15. Due to the size of trestle pile, the adjustment of the shear head locations, as provided in RFI T-0703, cannot be achieved.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per SKS-0283 (Attached):

To avoid the trestle pile interference with the column shear heads at Grid G/15, the heads layout shall be rotated 45 degrees about the column center.

The layout of heads in an arm shall be modified such that each of the arms contains 9 lines of heads extending to 16' from the column center.

Heads in an arm shall be placed approximately at each 8' reinforcing module intersection, such that each adjacent line radiating from the column is staggard.

The minimum number of total heads shall be 508.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*
T-0729	**BGP - Typical Trim Steel Requirements for Mat Slab per Field Coordination**	**Closed**	**09/10/2013**	**09/20/2013**	**09/11/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing S1-3009 and S1-3501.

As per field coordination between SCCI, Gerdau, WOJV and TT on 09/09/2013, to help alleviate congestion in the mat reinforcing, and in particular, congestion resulting from add bars due to openings and penetrations, please confirm the following items are acceptable:

1. Details 4 and 7 on Sheet S1-3009 in so far as they apply to trestle piles, pin piles, dewatering wells and piezometric pipes can be relaxed in terms of additional bars. For an even number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars)/2. For an odd number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars +1)/2.

2. Detail 1 on Sheet S1-3501, which applies to sinks, can be relaxed in terms of additional bars. For an even number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars)/2. For an odd number of bars interrupted (typical bars and add bars) the number of bars added on either side of the opening can be (number of interrupted bars +1)/2. The minimum requirement of 2 bars on either side of the opening need not apply.

3. The number of bars and maintenance of clear spacing will take precedence over 8" or 4" module spacing as to minimize the number of potential bar interruptions (and minimize resulting add bars). Any bar may be displaced to avoid conflict. The maximum center-to-center spacing of any two adjacent bars may be as large as 16". Clear spacing of 1 bar diameter shall be maintained between bars where bar relocation necessarily reduces spacing in the vicinity of relocation. Where bar relocation affects a lap splice, noncontact lap splices will be allowed up to 6" for #10 and #11 bars. This remedy shall apply in particular when seeking to avoid interruptions at small penetrations such as risers, vents, sinks and conduits.

4. Clear spacing of 1db minimum shall be maintained in all mat reinforcing except for contact lap splices.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/11/2013
RESPONSE:
The measures to reduce congestion described in the RFI are confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

5. Measures to reduce congestion at other locations such as catch basins, sump pits, elevator pits, shoring bracing and bridge piers will be considered on a case-by-case basis during field coordination with Thornton Tomasetti's field representative.

T-0730 **BGP - Extended Time for Concrete Delivery of Protection Slab Mix** **Closed** **09/10/2013** **09/20/2013** **09/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached excerpt from specification section 033020, Article 3.3 - D.

The referenced specification section requires mixed discharge concrete "...be completed within 1-1/2 hours or before the drum has revolved 300 revolutions, whichever comes first..." However, Cemex the concrete supplier has performed the set time test to evaluate the time at which the onset of hydration occurs for mix #1557217 (Protection Slab Mix) as per the attached Cemex letter dated August 26, 2013.

As per the attached test result by Cemex, please confirm it is acceptable to extend the concrete delivery to two (2) hours in lieu of 1-1/2 hours as specified.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It will be acceptable to extend the concrete delivery time as proposed in the RFI.

The contractor shall be responsible for providing an end concrete product that meets the specifications.

T-0730.1 **BGP - Extended Time for Concrete Delivery for Columns, Foundation Walls, Shear** **Closed** **12/04/2013** **12/14/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please see attached Set-time tests and Letter dated 11/25/2013, authored by Robert Foley, CEMEX QC Manager. The attached Set-time tests are for mixes: #1557205 - Columns, #1557216 - Foundation Walls, and #1558218 - Shear Walls and Concourse Slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/10/2013
RESPONSE:
It will be acceptable to extend the concrete delivery time as proposed in the RFI.
The contractor shall be responsible for providing an

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Is it acceptable to extend the delivery time of the mixes refernced herein to 2 hours?

end concrete product that meets the specifications.

T-0731 **BGP - Conduit Termination Location for Sump Pumps Between Grid Lines 1 & 12 - Closed** **09/12/2013** **09/22/2013** **09/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to drawing E1-6001, A1-2102, A1-2103, E1-2023 and E1-2022.

Per Detail 7 on plan sheet E1-6001, the sump pump conduits for the below grade package are to be terminated 12" above the mat slab directly adjacent to the future train platform wall.

1. With the train platform wall beginning at grid line 12 and moving east, please provide the conduit termination location for the sumps installed west of grid line 12 where there is no train platform. Please include a set dimension the conduit should be set away from the sump.

Please note that for the two sumps that have been poured in Area 3, the conduits were placed roughly 9' to the north of each sump opening to avoid the future train tracks. There are 8 total sumps west of grid line 12 with 6 of them left to be placed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per detail 7 on sheet E1-6001, note B reads to mount disconnect and receptacle on nearest column for zones 02 and 03. Please terminate conduit 12" above mat slab at nearest face of rectangular column

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T-0732 **SSS - Train Box Column Material Specification** **Closed** **09/13/2013** **09/23/2013** **09/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S-0007

After review of General notes SS-9 F on drawing S-0007 Skanskas fabricator, Thompson Metal Fab, is requesting clarification on the material grade specification for the Train Box Columns.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For Trainbox Steel Columns, Frequency P testing is not required. Testing at Frequency H is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please review and update the following if needed prior to Thomson Metal Fab¿s material order.

Plate: Grade ASTM A709 H.P.S. 70W Zone 1
All Train Box material to have a Charpy V Notch Impact Test with a Minimum of 25FT Lbs. @ -10 degrees.
ASTM A673 Frequency "P", ASTM A6 supplementary requirement S5.

T-0733 **SSS - Transfer Girder Material Specifications** **Closed** **09/13/2013** **09/23/2013** **09/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S-0007

After review of General notes drawing S-0007 Note our fabricator, Thompson Metal Fab, is requesting clarification on the material grade specification for the Transfer Girders.

Please review and update the following if needed prior to their material order.

Plate: Grade ASTM A572 GR 50 Zone 1
All Transfer Beam Material to have a Charpy V Notch Impact Test with a Minimum of 20FT Lbs. @ 70 degree F.
ASTM A673 Frequency "P", ASTM A6 supplementary requirement S5.

Or "AS Noted"

ASTM A709 Grade H.P.S. 70 W, Zone 1, CVN 25FT Lbs. @ -10 Deg. F.
ASTM Frequency "P", ASTM A6 Supplementary requirement S5.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No update required.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0734	**SSS - Transfer Girder Elevations**	**Closed**	**09/13/2013**	**09/23/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: S1-2303 thru S1-2307,

Elevations for transfer girders shown on drawings S1-2303 thru S1-2307 are in decimal feet. Once converted to feet/ inches they become 1/16th values.

Please verify if the elevations should be rounded up to the nearest 1/8th of an inch or kept as converted.

See attached specific conversions for each transfer girder locations

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Transfer girder elevations may be rounded to the nearest 1/8".

T-0735	**SSS -Clarification of Lateral Bracing Members**	**Closed**	**09/16/2013**	**09/26/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S-0007

Please identify what are considered "LATERAL SYSTEM MEMBERS" as called out in the GENERAL NOTES SS-9, B "REGARDLESS OF THICKNESS ALL TRUSSES, LATERAL SYSTEM MEMBERS (INCLUDING COLUMNS, BRACES, ETC.): 20FT-LB @ 70 DEG. F."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Lateral system members refer to members of the seismic framing. Following members constitute the seismic frame: Members designated as SLRS or SFRS in the drawings, members in "seismic frame elevations". See plan notes to locate "seismic frame elevations".
As called out in Specification 05 12 10 (Structural Steel - Additional Seismic Requirements) Section 2.1.A.1, "Heavy sections shall be supplied with CVN testing in accordance with AISC 341". Therefore, requirements of SS-9B need not be applied and CVN testing requirements can be limited to heavy sections (shapes) per the AISC 341 requirements. As noted in General Notes GR-2, AISC 341-10 is the governing provision.

T-0736	**SSS - PJP Weld Designation at Type 2 Drag Connection**	**Closed**	**09/16/2013**	**09/26/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawing: 2/S1-5017
Reference Sketch: SK1

On detail 2/S1-5017 for the Type 2 Drag connection verify at the 2" plates the 1/2" PJP weld is the actual prep or is additional prep required to achieve a 1/2" effective weld requirement (IE; 5/8" prep).

The 1/2" is actual bevel dimension, effective weld will be (1/2"-1/8")=3/8".

T-0737 **SSS - Type 2 Drag Connection Pin Clearance** **Closed** **10/07/2013** **10/17/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

1) The Drag Connection Details on drawing S1-5017 appears to show double nuts securing each end of the pin, please confirm.

2) Refer to the Drag Connection Details on drawing S1-5017, is it acceptable to add a cotter pin thru the threads of the pins after the double nut to further secure the nuts from backing out?

3) Skanska proposes to size the pins for the Drag Connections per AISC Table 15-8, "Dimensions and Weights of Recessed-Pin Nut", i.e. provide a 4 ½" diameter thread for a 6" diameter pin. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) It is confirmed that double nuts are required.
2) It is acceptable to add a cotter pin thru the threads of the pins after the double nuts to further secure the nuts from backing out.
3) Sizing the diameter of the thread area per AISC Table 15-8 is acceptable, but please note that the pin for the Type IIM & IIP drag connections is 7" diameter, not 6" as noted in the RFI.

Stacy Wilson (TCCO Response)
If the Contractor elects to use cotter pins as described in the RFI above, it will come at no cost to the TJPA as it is considered means and methods.

T-0738 **SSS - Drag Connection to Bus Deck Castings** **Closed** **09/17/2013** **09/27/2013** **10/01/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-5016 and S1-5017

The spacing of the shear plates on the bus deck cast nodes varies in conjunction with the thickness of the web of each connecting beam. See 1c/S1-5016 and 1b/S1-5017 for reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In concept, TT take no exception with standardizing the bolt and pin lengths, but offer the following comments:

1.The bus deck cast nodes are in the process being fabricated, so the proposed change shall not affect the cast node pad width. The pad on the cast node has

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In order to avoid customizing the cast nodes, connection pins and/or the bolt lengths, our fabricator, Oregon Iron Works, proposes to standardize the spacing on the cast node shear connection plates and customize the thickness of the web reinforcing plates. See the attached mark-ups of S1-5016 & S1-5017 depicting the proposed detail.

Please confirm that this proposal is acceptable.

sufficient width to accommodate the connection plates as shown on the contract documents.

2.For Type I drag connection, the tabulated plate thicknesses do not include the ones for W40 x327 (near Grid 9.9, 10.1, & 19.9) and W40x392 (near Grid 20.1).

T-0738.1 **SSS - Nominal Gap Dimensions for Cast Node Drag Connections** **Closed** **01/14/2014** **01/24/2014** **01/24/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

WOJV RFI T-0738 (SK RFI 004.1) was submitted to the EOR proposing a 1/2" gap for Type 1 and Type 2M drag connections at the Bus Deck Level Cast Nodes. These ½" gaps were not explicitly called out, but were indicated on the suppor ting documents attached for your reference.

Subsequent conversations with Thornton Tomasetti and Webcor/Obayashi have revealed that a 1/8" nominal gap is preferr ed in lieu of the noted ½" gap.

Please advise if a 1/2" or 1/8" nominal gap is required for the Type 1 drag connection on 1/S1-5016 and Type 2M drag connection on 1/S1-5017.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 1/2" gap was proposed initially in RFI T-0738 to allow for 1/4" gap at each side of the beam web. We propose a 1/8" gap each side to mitigate the potential joint movement in an earthquake. We believe that the 1/8" gap is sufficient for erection tolerance. If Skanska prefer the 1/4" gap, please provide justification for the Design Team to review.

T-0739 **BGP - Column C16 and Knock-Out Corbel at West Throat** **Closed** **09/17/2013** **09/27/2013** **09/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing detail 1/S1-2022 and 4/S1-3260.

Per previous discussion with TT field engineer, in the West throat shearwalls which contain integrated CI6 columns and vertical corbels to restrain the knock-out

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
Column C16 is a boundary element in the West Throat Shearwall. Integral to the column (and the wall) is a vertical corbel that restrains the knock-out wall. Ties

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

walls, only the CI6 column ties are required to penetrate the mat at the designated spacing for a distance of at least 12" below the lowest top mat elevation. The ties associated with the corbel are not required to penetrate the mat slab.

This RFI confirms that the column and corbel ties, as placed, are acceptable based on the observation by the TT field engineer.

are indicated for both the column and the corbel. Only the column ties are required to penetrate the mat at the designated spacing for a distance of at least 12¿ below the lowest top mat elevation. The ties associated with the vertical corbel are not.

As the corbel ties are not required below the mat, the corbel ties observed in the field are necessarily confirmed as acceptable.

The column ties, which are required to penetrate the mat, shall be placed per the contract drawings. This RFI response does NOT confirm the placement or spacing of the column ties observed in the field.

T-0740 | **BGP - Mat Slab Rebar Alternate to Grade 75 #11 in Area 6 & 7** | **Closed** | **09/17/2013** | **09/27/2013** | **09/26/2013** | **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Due to mill shortages of grade 75 #10 reinforcing please confirm that at no cost to the Owner, the implementation of grade 75 #11 reinforcing where required will be acceptable for use within the typical mat reinforcing installed at 8" O.C.

The use of the grade 75 # 11 rebar is expected to supplement the typical #1 0 bar in the following locations, 3rd and 4th layer of Area 6, and 4th layer of Area 7.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/25/2013
RESPONSE:
GR75 #11 bars as proposed in and limited to the scope of the RFI is acceptable.
Note that the lap splice length for #11 GR75 bars to #11 GR75 bars will increase over than of the previous #10 GR75 to #10 GR75 bars. Other combinations of spliced bars will be governed by the larger of LTE or the larger (or stronger) bar and the tension lap splice length of the smaller (or weaker) bar per Note 4 of Detail 1/S1-3001.
Clear documentation of these bars shall be made available from time of delivery. Submit as-built or marked-up submittal that reflects these bars for record.

T-0741 | **BGP - Pile Location Discrepancy at GL E/34.5 in Zone 4** | **Closed** | **09/17/2013** | **09/27/2013** | **09/26/2013** | **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference attached drawing S1-2057 and S1-3007.

The bridge pier pile (4'-0" diameter) near grid E/34.5 is shown in SI-2057 to be offset from the typical row of piles shown along gridline 34.7. In addition, detail 1/SI-3007 depicts the pile being located within the pit that is located at gridline E/34.5. However, as per BBI's Beale Street Bridge drawings and as-built conditions, the aforementioned bridge pile is installed in line with the other piles on gridline 34.7.

Please confirm the as-built location of the bridge pier is acceptable and the sump pit detail shown in 1/S1-3007 is no longer applicable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/25/2013
RESPONSE:
This topic has already been addressed in past RFI's. Please refer to responses for RFI T-0264.7 BSE as well as RFI-0264.3 BSE.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0742	**BGP- CDSM Soldier Pile Encroachment Area 9**	**Closed**	**09/20/2013**	**09/30/2013**	**09/26/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - G

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) and steel plate on the north & south wall in mat slab pour Area 9 as well as all levels of the encroachment into the foundation wall between CDSM piles 164 to 188 on the north elevation and 595 to 618 on the south elevation for Location Plan see exhibit - A
Exhibit - B, & C depict the location and degree in which the SP are encroaching
WOJV proposal North elevation on gridline A: (See Exhibit - B) Between CDSM piles 167 to 168 WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching Steel plate attached to SP 167 & 168, originally this was a WR1 reinforcement area #11@8" oc EF vertically and would change to #11@6" OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.1 (Exhibit - D).
WOJV proposal on the South elevation: (See Exhibit - B) Between CDSM piles 611-612 to 613-614, WOJV is proposing to decrease the specified 36" wall thickness to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/25/2013
RESPONSE:
The contractor proposed revisions to foundation wall reinforcement due to encroaching CDSM Piles (and added steel plates) in Area 9 are acceptable. Note that reducing the spacing of embedded column vertical reinforcement from 6 inch to 5 inch may negatively impact the installation of embedded column cross-ties which are #5 per construction drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

34" to clear the encroaching SP 612. This foundation wall area was originally a embedment column with reinforcement in this area was a double layer of #11@6" OC EF vertically and would change to #11@5" OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.4 option1 (Exhibit -E).
In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.
See Exhibit - F & G showing details of transition between modified reinforcement to contract reinforcement.
These solutions if approved would be incorporated into the TG06 shop drawings.
Please confirm if these solutions would be acceptable.

T-0742.1 **BGP - U-Bar at CDSM Encroachment Near GL 16.9/J in Area 9** **Closed** **10/17/2013** **10/27/2013** **10/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2024, S1-3302 and response to RFI T-0742 - CDSM Soldier Pile Encroachment Area 9.

Per the response to RFI T-0742, the spacing of the verticals in the C21 embedded column at Gridlines 16.9/J was changed from 6" OC to 5" OC due to the CDSM soldier pile encroachment. As a result, there is an odd number (19) of verticals per layer which would leave one row of verticals to not be straddled by a U-bar. Gerdau proposes to widen the final U-bar in the embedded column and straddle 3 rows of vertical bars as depicted in the attached Gerdau sketch SK-97.

Please confirm it is accceptable to proceed as shown in SK-97.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/22/2013
RESPONSE:
All exterior wall bars at their penetration into the mat shall have lateral support perpendicular to the edge of the mat. In Gerdau Sketch SK-97, provide a single leg tie with a 180 hook on the odd exterior vertical wall bar. Alternatively, normal u-shaped ties can be placed either side of an odd bar and a 180 hook added to the odd bar. The embedment length of the single leg tie shall be that of the u-shaped bars.

T-0743 **BGP- CDSM Soldier Pile Encroachment Area 10** **Open** **09/20/2013** **09/20/2013** **09/26/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Documents: Exhibits A - I

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south wall in mat slab pour Area 10 as well as all levels of the encroachment into the foundation wall between CDSM piles 164 to 188 on the north elevation and 571 to 595 on the south elevation for Location Plan see exhibit - A
Exhibit - B & C depict the location and degree in which the SP are encroaching
WOJV proposal North elevation on gridline A: (See Exhibit - B) between CDSM pile 200-201 to 206, WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching SP 206. This foundation wall area was originally a WR2 reinforcement area (#11@6" OC EF vertically) and would change to #11@5" OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.3 option 2 (Exhibit -E).
WOJV proposal on the South elevation: (See Exhibit - B) Between CDSM piles 574 to 576 and 587 to 588 - 589 WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching SP 575 &588, originally these were WR1 reinforcement areas #11@8" OC EF vertically and would change to #11@6" OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.1 (Exhibit - D).
Between CDSM piles 588-589 to 591, WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching SP 589 & 590. This foundation wall area was originally a embedment column with reinforcement in this area was a double layer of #11@6"oc EF vertically and would change to #11@5" OC this reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.4 option1 (Exhibit -F).
In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.
See Exhibit - G, H & I showing details of transition between modified reinforcement to contract reinforcement.
These solutions if approved would be incorporated into the TG06 shop drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/25/2013
RESPONSE:
The contractor proposed revisions to foundation wall reinforcement due to encroaching CDSM Piles in Area 10 are acceptable. Note that reducing the spacing of embedded column vertical reinforcement from 6 inch to 5 inch may negatively impact the installation of embedded column cross-ties which are #5 per construction drawings.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm if these solutions would be acceptable.

T-0744 **BGP - Reinforcement Ties in Knock-Out Corbel and Haunch at SW Corner in Area** **Closed** **09/17/2013** **09/27/2013** **09/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached detail drawing 2/S1-2030, excerpt drawing from submittal package TG0600-301.2 and SCCI Sketch SK-RFI-324

Per field coordination with TT field engineer, please confirm it is acceptable to omit the pilaster ties of detail 2/S1- 3204 within the body of the haunch provided that:

- The pilaster West corner bar (Bar A in attached sketch) is tied with 135 hooks in both directions
- Ties shall be #4 bars spaced at 4" o.c.
- The tie perpendicular to the South wall shall be developed a minimum of 14" into the South wall beyond thehaunch
- The tie parallel to the South wall shall be hooked around the pilaster East corner bar (Bar B in attached sketch)
- In lieu of two individual ties, it is also acceptable to combine the ties into a single shape with a 90 degree bend at Bar A
- The extent of the ties shall be from the top of the mat to the top of the haunch, after which Detail 2/S1-3204 will resume
- The horizontal haunch bars shall terminate with a spliced matching hook
- The horizontal formsaver bars for the future train tunnel shall be #7 @ 6" O.C. on the inside and outside face of the 3'-0" foundation wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/17/2013
RESPONSE:
The pilaster detailing as described in the RFI is acceptable within the body of the haunch.

T-0745 **BGP - Construction Joint Layout Modifications at Area 6** **Closed** **09/18/2013** **09/28/2013** **09/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

See attached photos of the construction joint at mat slab area 6 South, near grid line 8.5, and CJ layout drawings.

Due to congestion and access SCCI would like to shift the walls and concourse joints at this location 14.5"' to the East. This adjustment does not affect any other structure's elements and complies with the CJ parameters outlined in the contract specifications.

Please confirm modifiying the construction joint layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/27/2013
RESPONSE:
Per conversation between TT & Shimmick, it was clarified that the proposed joint modification is only at the south end where the original N-S running joint in the mat and the Lower Concourse will turn an angle near the toe of the chamfer so that the joint will end perpendicular to the foundation wall. The 14.5" shift proposed in the RFI is shift in the south end point only.

T-0746	BGP - Plumbing Clarifications to 2" Vent and 3" San Connection in Area 4	Open	09/18/2013	09/28/2013	09/20/2013	Potentially ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Pleaes refer to attached plumbing drawing PSK-2022 (dated 04/26/2013) and IR Report 1633.

On 09/10/2013, the SFDBI inspector expressed concern about the installation of the 2" vent and 3" connections in the mat slab area 4 - See IR 1633.

Please confirm the 2" vent and 3" connection pipes are to be installed per drawing PSK-2022..

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/20/13
RESPONSE:
The 3" drain and 2" vent connections serve as drain for the future Phase 2 under car deluge system control assemblies. They are similar to sprinkler drains, refer to detail 3/P1-6001 (with trap below floor, no trap primer connection below floor, the trap primer connection will be above floor).

T-0747	SSS - BU Girder Size at Roof GL 28	Closed	09/20/2013	09/30/2013	09/25/2013	Potentially ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-4114
Reference Sketch: CD RFI 015 SK1 attached.

Reference detail A/S1-4114 which does not indicated the built-up girder size at the Roof Park Level between column lines E.6 and D.4 (see CD RFI-015 SK1 attachment). It

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GL28 Roof Beam size provided in the Revit model is accurate.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

appears from the latest Revit model that the BU girder is intended to be BU66x30x1.5x2.25. Please confirm the size provided on the Revit model is accurate or advise the girder size to be used at this location.

T-0748 **SSS - Type TTT Threadbar Anchor Bolt Embedment** **Closed** **09/20/2013** **09/30/2013** **09/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

Reference Drawings: S1-5051

Reference S1-5051 which indicates the embedment depths for Type T and TT threadbar anchors are to be 3'-8" and 2'-8", respectively, while the embedment depth for type TTT threadbar anchors is to be 16'-0". Please verify the embedment depth for Type TTT threadbar anchors is to be 16'-0" as indicated on 4/S1-5051.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see attached email from Lee Ishida of Thornton Tomasetti confirming the embed length is 16 feet.

T-0749 **SSS - Anchor Bolt Finish Requirement** **Closed** **09/20/2013** **09/30/2013** **09/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-5051, S-0007
Reference Specification: 05 10 00 3.2.P.6

Reference is made to the base plate anchor rod schedule on 7/S1-5051 indicating anchor rods are to conform to either ASTM A615 or A722 standards. While ASTM A615 does not explicitly state finish requirements, A722 calls for all bars to be uncoated. Within the IFC documents, Specification Section 05 10 00 3.2.P.6 and Note SS-10 on S-0007 call for miscellaneous metals and exposed steel to be the hot-dipped galvanized.

Please confirm the finish requirements for materials listed in the base plate anchor rod schedule on 7/S1-5051.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Anchor rods shown on sheet S1-5051 are to be uncoated, as they will be covered by fireproofing.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0750	**SSS - Moment Frame Column Field Splice at Bus Level**	**Open**	**09/20/2013**	**09/30/2013**	**10/02/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-4201, S1-4203, S1-4202
Reference Sketch: CD RFI 022 SK1 & SK2

Reference is made to drawing 1/S1-4201 detailing the moment frame column field splice above the Bus Deck Level. Per details 1/S1-4201 and 1/S1-4203, a thickened column web plate is required at the Bus Deck Level in the 48" deep moment columns. Please verify the following is acceptable at this field splice:

1. The web plate can be extended 14" to the field splice location, eliminating a shop web splice in the column. Reference CD RFI 022 SK1 & SK2 for additional information.

2. The thickened column web plate will need to be tapered similar to detail 8/S1-4202 at the field splice location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contractor's proposal to extend the thickened web plate to the splice point is acceptable.

The thickened web plate shall be tapered similar to detail 8/S1-4202 as stated in the RFI.

T-0751	**SSS - Roof Level Moment Frame Column Field Splice at GL 28**	**Closed**	**09/20/2013**	**09/30/2013**	**09/26/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-4114 ,S1-4203
Reference Sketch: Reference CD RFI 023 SK1 & SK2

Reference is made to drawing 1A/S1-4114 and detail 5/S1-4203 indicating the SMRF column to beam flange moment connection at the Roof Level. Please verify the 8'-0" typical field splice dimension noted on A/S1-4114 at column grid D4 and E.6 is from the top of the roof girder, providing a 30" column section welded to the underside of the girder.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At GL28, 8 ft field splice dimension is measured from the bottom of the Roof beam, providing an 8 ft column section welded to the underside of the beam.

T-0752	**SSS - Anchor Bolt Coupler Location**	**Closed**	**09/20/2013**	**09/30/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Drawing: S1-5051

Reference is made to detail 6/S1-5051 for Type TT Threadbar Anchors. Please confirm the couplers will be centered about the bottom of the moment frame beam as indicated.

Confirmed that the couplers will be centered about the bottom of the moment frame beam as indicated.

T-0752.1 **SSS - Anchor Bolt Coupler Location** **Closed** **10/21/2013** **10/31/2013** **10/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please confirm it is acceptable to locate the couplers for the Type TT Anchor system 12-3/4" above the column and moment frame beam joint to allow for the installation of a temporary 1/4" alignment plate to aid with the installation and alignment of the anchor rods during the initial column pour.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the couplers for Type TT anchor system may be moved to 12-3/4" above the column and moment frame beam joint as proposed for the installation of a temporary alignment plate.

T-0753 **BGP - East Bulkhead and Catch Basin Conflict with Mat Slab Construction Joint in Closed** **09/20/2013** **09/30/2013** **10/02/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please refer to attached photo of as-built location, drawing SKA-2821 and excerpt from the CJ submittal shop drawing CJ-04 (TG0600-030).

SCCI had to shift the construction joint between mat slab areas 6 and 7 Eastward due to the interference with the micropiles and trestle piles. This shift in the CJ puts the bulkhead against the catch basin near GL G11.

Please confirm it is acceptable to shift the catch basin location approx. 24-inches in either east or west direction of the bulkhead/CJ.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/28/2013
RESPONSE:
It is acceptable to shift the Catch Basin location approximately 24" to the West (Refer to SKA-2850). Drainage piping to be shifted to the west accordingly.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0754	BGP - Area 9 Clear Cover to the Vertical Reinforcement on the Foundation Wall	Closed	10/10/2013	10/20/2013	10/18/2013	Potentially	

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-609 this RFI shows the areas of foundation wall/embedded column in pour Area 9, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement

RFI T - 742 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 9.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/2013
RESPONSE:
The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

T-0755	BGP - Area 10 Clear Cover to the Vertical Reinforcement on the Foundation Wall	Closed	10/11/2013	10/21/2013	10/18/2013	Potentially	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-609 this RFI shows the areas of foundation wall/embedded column in pour Area 10, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A
Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement.
RFI T - 743 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 10.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/2013
RESPONSE:
The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0756	**BGP - Structural Slurry Primer in Mat Slab**	**Closed**	**09/24/2013**	**10/04/2013**	**09/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to the attached letter, authored by Rober Foley (CEMEX QC), dated September 17, 2013.

With limited site access, many Mat Slab pours will require a larger than normal amount of slick-line. To ensure that no slick-line gets plugged, SCCI is proposing to prime the slick-line with a structural slurry that will reach and exceed the specified design strength for the Mat Slab. A miniscule percentage of this primer will be deposited into the mat slab. This percentage would amount to .01 to .02 percent by volume.

Please confirm the proposed SCCI method of slick-line priming is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/24/2012
RESPONSE:
Any material that is not the approved mix design for the mat slab, including slick-line primer, shall not be placed in the mat slab.

T-0757	**SSS - HSS Vertical Post Size at Roof Park Level**	**Closed**	**09/25/2013**	**10/05/2013**	**09/26/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: 2/S1-7109, A&C/S1-7136

At grid lines D.4 and E.6, west of grid line 24.9, four HSS vertical posts were added per ASI No. 0105. Please provide the missing HSS vertical post sizes at the indicated locations above the Roof Park Level (reference CD RFI 021 SK1 & SK2).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The four vertical HSS posts that were added above the Roof Park Level in ASI No. 105 and shown on S1-7109 and details A & C on S1-7136 have been removed in ASI No. 106.

T-0758	**SSS - W12 Beam Information at Roof Level GL E.1**	**Closed**	**09/25/2013**	**10/05/2013**	**10/11/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference is made to Drawing S1-2602 regarding the W12x14 beam stubs near grid line E, east of grid line 1. Please verify the following W12x14 beam characteristics as noted on CD RFI 027 SK1:

1) Please supply the location, length, and elevation for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The W12x14 beam identified in the RFI sketch is not required.
2. The 3 beams identified in the RFI sketch are not required.
3. See response to #2.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

W12x14 beams between grids E.2 and E.6.
2) Please verify the member sizes for the three areas noted between grids D & E.2 are to be W12x14.
3) For the same areas indicated in item #2, please supply the beam locations, lengths, and elevations.

W/O Note: Provide credit for deleted beams.

T-0759 **SSS - Beam Camber Dimensions at Ground Level** **Closed** **09/25/2013** **10/05/2013** **09/27/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference is made to Drawings S1-2303 and S1-2304 near grids F.9 and G.13. Please verify the following:

1) S1-2303 indicates the W30x90 beam near grid F.9 is to have a 3 ¼" camber (reference CD RFI 028 SK1). Please verify the camber should be ¾" in lieu of the 3 ¼" dimension indicated.

2) S1-2304 indicates that three W24x76 beams between grids F/G & 13/14 are to have a 3 ¼" camber (reference CD RFI 028 SK 2). Please verify the cambers should be ¾" in lieu of the 3 ¼" dimension indicated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the W30x90 beam near grid F.9 and the three W24x76 beams between grids F/G & 13/14, the beam cambers shall be 3/4" and not 3 1/4".

T-0760 **SSS - Column Base Plate Detail Clarification** **Closed** **09/25/2013** **10/05/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please verify the following in reference to Detail 5B on S1-5051 and the sketches attached (SD RFI 029 SK1, SK2, & SK3)

1) For type 2 column base plates at the lower concourse please confirm the grout hole indicated is to be 7" below the base plate in order to place it 5" below the top of concrete as appears to be shown in detail 5B/S1-5051.

2) For the 26" by 30" type 2 base plates as shown in 2/S1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The Grout hole in the shear key is to be centered at the 10" deep shear key (5" from the bottom of the base plate).

2) The location of the shear key shall be as shown on 3/S1-5051. Location of the shear key is controlled by the concrete beam top bars below. Where the base plate is only 26" wide, the shear key may be located 10" from center of column (instead of 10- 3/4" shown on 3/S1-5051) to fit within the width of the 26" wide

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5051 please confirm the shear key plates may be located 10" from center of column to fit within the width of the 26" wide as shown on SK3 base plates.

base plate.

T-0761 **SSS - Beam Size Clarification - Roof Park Level GL** **Closed** **09/25/2013** **10/05/2013** **10/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference S1-2603 which calls out the beam near grid F.8 as "BU-44x230" (see CD RFI 032 SK1 attached).

Please supply the plate sizes for this BU member or advise if this should be a W44x230 beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The framing in the area between 7.8 & 9 has been changed. Please refer to ASI 106.

T-0762 **BGP - Haunch Bar Grade and Size Increase** **Closed** **09/25/2013** **10/05/2013** **09/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing S1-3201 and spec section 032000.

The #10, Grade 60 concrete reinforcement for the "haunch" is shown on the typical foundation wall section drawing S1-3201. The trade group package contractor SCCI proposes the use of a Grade 75 #10 or #11 rebar in-lieu of the Grade 60 #10 "haunch."

Please confirm it is acceptable to use Grade 75, #10 or #11 rebar in lieu of the specified concrete reinforcement at the "haunch."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
9/30/2013
RESPONSE:
The #10 GR60 haunch reinforcing shown on the typical foundation wall section, 1/S1-3201, can be substituted with #10 GR75 reinforcing with the following conditions:

1. RFI T-702 BGP stands, i.e. the detailing and location of the hooked top remains unchanged.

2. RFI T-710 is modified such that headed bars are not allowed.

3. RFI T-710 is modified such that the straight embedment into the mat, either vertical or inclined, where the bar is interrupted by a dewatering well, shall be 52" minimum.

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#11 bars of either grade shall not be used in lieu of #10 haunch reinforcing.

T-0763 **SSS - MC10 Link Brace Foul at Roof Perimeter** **Closed** **09/26/2013** **10/06/2013** **10/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference detail 5/S1-4205 showing the link brace detail at the roof along column lines B and H. In the IFC documents, the beam size was increased from W21x55 to W24x55, causing the MC10x41.1 brace (increased from M8x22.6) to foul the beam flange. See CD RFI 020 SK 1 & SK2 attached for reference and advise on resolution for the foul noted.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A portion of the W24x55 bottom flange and a portion of the web (up to 1" from the bottom of the beam) may be coped to clear the double channel braces.

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T-0764	**SSS - Built-Up Beams - Plate Yield Strength**	**Closed**	**09/26/2013**	**10/06/2013**	**09/30/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference contract sheet S-0007, specifically structural steel note SS-1, which indicates that plates used for flanges in built up beams shall meet the criteria of ASTM Designation A572-50 (UNO) and have a maximum yield point of 58ksi.

The plate mills will not guarantee material that meets the A572-50 criteria and further restricts the yield to a maximum of 58ksi. The plate mills will guarantee material that will yield within the range of 50ksi - 65ksi. Attached you will find correspondence with two major US steel mills for reference.

Please confirm, for the plates used for flanges in built-up members produced from A572-50 material, that a yield range of 50ksi - 65ksi is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The maximum yield strength specified on General Note SS-1 is to ensure the strong column/weak beam condition is met. Hence, this requirement may be relaxed to applicable to steel plates for seismic moment frame beams only.

From our past experience, the maximum yield of 58 ksi is a very reasonable target. Also, the lab tensile tests commonly show a lower yield than what is provided on the mill certifications (around 2- 6 ksi lower).

However, we understand that this is still a risk to the steel contractor even though it is only applicable to the seismic moment frame beams. We agree to relax this requirement further accepting the yield strength up to 65 ksi as requested

---

T-0766	**SSS - Stiffener Requirements at Column Base Detail**	**Closed**	**09/27/2013**	**10/07/2013**	**10/02/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please confirm the following in reference to the column base details shown on S1-5051.

a) With reference to Drawing S1-5051, please confirm that only the Type I base plates have vertical stiffeners at the column flanges and web, while the Type II and Type III base plates have vertical stiffeners only at the column web.

b) With reference to Details 4 and 6 on Drawing S1-5051, please confirm the base plate type and column indicated in these details are for graphical purposes only and do not indicate the type of base plate to be used with the detailed threadbar anchor.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

a) Yes. Type I base plate has stiffeners at flange and web while Type II & Type III base plate only have stiffeners at column web.

b) Yes. the base plate shown is for graphical purpose only. The type of the base plate shall be in accordance with Base Plate Schedule.

T-0767	**SSS - Herrick RFI 01 - W shapes from BU**	**Closed**	**09/27/2013**	**10/07/2013**	**10/04/2013**	**Potentially**	☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

The following sizes and shapes are not available in the U.S. Please confirm all sizes will be Built up sections from plate.

W40 X 392 Grade A992, W40 X 503 Grade A992, W40 X 593 Grade A992 will be fabricated with A572-50 Plate. W40 X 392 Grade A709, W40 X 503 Grade A709, W40 X 593 Grade A709 at the Bus Deck will be fabricated with A709-50 Plate.

Welding Preparation of Built up sections to follow.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We confirm that equivalent built-up sections can be provided in lieu of rolled shapes listed in the RFI that are domestically unavailable. Proposed plate types and grades are acceptable. Plate dimensions for the equivalent built-up sections shall be per corresponding rolled shapes in AISC Steel Manual.

T-0767.1 **SSS - Fillet Weld Sizes for Built up Members** **Closed** **10/18/2013** **10/28/2013** **10/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

The response to Webcor/Obayashi RFI T-0767 (SK RFI 013) confirmed that equivalent built-up sections can be provided in lieu of W shapes not available domestically. All W40 X 503 and W40 X 593 at the Ground level (reference S1-2302 thru S1-2311) will be built-up sections.

Please provide fillet weld sizes accordingly for the sections noted in the attached sketch.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) For web to flange welding of built-up sections equivalent to W40x503, refer to response provided for RFI T-0704.1.

2) For built-up sections equivalent to W40x593, web to flange welding shall be with double 7/8" fillet welds for 4 ft from each end of each flange plate and double 5/8" fillet welds in between.

Note that W40X503 and W40x593 are also used at Bus Deck and Roof Levels. W/O to coordinate RFI T-0767.1 response with other sub-contractors, as needed.

T-0767.2 **SSS - Weld Preferences At Added Built Up Sections** **Closed** **11/18/2013** **11/28/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The response to Webcor/Obayashi RFI T-0767 (SK RFI 013) confirmed that equivalent built-up sections can

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the built-up sections equivalent to W40x392, web to flange welding shall be with double 5/8" fillet welds

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beprovided in lieu of W shapes not available domestically. All W40 X 392 at S1-2505, S1-2603, S1-2604, S1-2605 will be built up sections.

Please provide fillet weld sizes accordingly for the sections noted in the attached sketch.

for 4 ft. from each end of each flange plate and double 1/2" fillet welds in between.

T-0768 **SSS - PJP Weld Preperation at Column Base** **Closed** **09/30/2013** **10/10/2013** **10/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: 3/S1-5051

Please confirm the weld prep for the PJP weld indicated on Detail 3/S1-5051 is ½" deep at 45 degrees (reference CD RFI 038 SK1).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm that the bevel for PJP weld is 1/2" as shown.

T-0769 **SSS - Verify Beam Locations at Ground Level East** **Closed** **09/30/2013** **10/10/2013** **10/02/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2305, S1-2306, and S1-2307

As indicated on the sketches attached, there are beams which have not been located on the referenced drawings. The dimensions provided and clouded in red are taken from the latest Revit model. Please verify all clouded dimensions required to located the steel in question.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Beam locations are identified on structural drawings by:

1) Dimensions to nearest gridlines,

2) Dimensions to Edge of slab (Coordinate with architectural edge of slab drawings per sheet note on first zone plan of each level to identify beam locations),

3) Dimensions shown on partial plans,

4) Special symbols such as asterisks (*) adjacent to beam size tags in combination with sheet notes. See 3a) and 3b) for examples.

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a) Ground level: Beams supporting W systems are identified with asterisks. Sheet notes are provided on S1-2305, S1-2306 and S1-2307 stating that the locations of such beams need to coordinated with TG08.1 package.

b) Roof park Level: Sheet note 5 on S1-2602 states that for beams with a specific connection symbol, beam locations need to the coordinated with TG08.1 package.

5) General note GR-13 on S-0005 which states "Assume equal spacing between established dimensions, if not indicated on drawings".

6) General notes GR-11 through GR-16 shall apply.

Considering the above guidelines, please resubmit RFI 769 and 770 if further clarification is needed. We will clarify beam locations other than those covered by the above guidelines.

T-0769.1 **SSS - Verify Beam Locations at Ground Level East** **Closed** **11/22/2013** **12/02/2013** **12/13/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On the response to Webcor RFI # T-0769 (SK RFI # SK 050) & T-0801 (SK RFI # 066) we have reviewed and located most of the beam locations in question using the nearest gridlines, architectural dwg's, partial plans, equal spacing, etc per the noted guidelines in the response. However on drawings S1-2302, S1-2303 & S1-2304 there are still some beam locations that cannot be located and require verification therefore on sketches CD RFI 047.1 SK1 to SK3 please verify all clouded dimensions in RED as noted to close this RFI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Responses to the queries on dimensions for locating beams on floor plans have been noted on the attached sketches SKS-0303, SKS-0304 and SKS-0305.

T-0770 **SSS - Verify Beam Locations at Roof Park Level West** **Closed** **09/30/2013** **10/10/2013** **10/02/2013** **Potentially** ☐

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From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2602

See attached CD RFI 026 SK1 showing missing dimensions required to locate beams at the Roof Park Level Zone 02. Please verify all dimensions indicated in red, which have been taken from the latest Revit model, are accurate to locate the steel in question.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see response to RFI T-769 for response.

T-0770.1 **SSS - Verify Additional Beam Locations at Roof Park Level West** **Closed** **12/10/2013** **12/20/2013** **12/31/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

On the response to Webcor RFI # T-0770 (SK RFI # SK 052) & T-0769 (SK RFI # 050) we have reviewed and located most of the beam locations in question using the nearest gridlines, architectural dwg's, partial plans, equal spacing, etc per the noted guidelines in the response. However, on drawings S1-2602 to S1-2607 there are still some beam locations that cannot be located and require verification; therefore, on sketches CD RFI 026.1 SK1 to SK6 please verify all clouded dimensions in RED as noted to close this RFI.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Responses to the queries on dimensions for locating beams on floor plans have been noted on the attached sketches SKS-0316 through SKS-0321.

T-0771 **SSS - Lower Concourse Anchor Bolt Details** **Closed** **09/30/2013** **10/10/2013** **10/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference Drawing S1-5051 and confirm the following in regards to the column base details:

1) Confirm it is acceptable to oversize the holes for anchor bolt penetrations through base plate per AISC's 13th Edition Table 14-2 (reference CD RFI 016 SK2 attached).

2) Confirm the hole sizes indicated in Part 1 are acceptable for anchor bolt penetrations through the horizontal column stiffener.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The numbering of the response below matches with the numbering of the RFI.

1.Confirmed the holes may be oversized per AISC's 13th edition, Table 14-2.

2.Confirmed.

3.Washer thickness shall be in accordance with AISC's 13th edition, Table 14-2.

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3) Confirm it is acceptable to supply a ½" x 4" x 4" (A36) plate washer above the column stiffener with a 1/16" oversize hole.

4) Confirm it is acceptable to locate the grout holes typically as shown on CD RFI 016 SK3.

5) To aid in the alignment of the thread bar anchor rods during concrete operations, please confirm it is acceptable to provide one ½" thick anchor plate at the base of the thread bars with size to match the base plate in lieu of four separate ½" x 4" x 4" anchor plates.

6) Confirm the thickness of the stiffener for Type II and Type III column bases is to be 2".

7) Confirm an anchor bolt projection of 2.5 x AB dia. above the plate washer on top of the column stiffener is acceptable. See CD RFI 030 SK3 for reference.

8) Confirm an anchor bolt extension of 2.5 x AB dia. below the bottom plate washer is acceptable. See CD RFI 030 SK3 for reference.

9) Confirm that the 1" cover as shown on CD RFI 030 SK3 is acceptable.

10) Confirm that the anchor bolts shall be installed wrench tight.

4.Grout hole locations and procedure shall be confirmed by the mock-up.

5.1/2" anchor plate matching the base plate at the bottom of the anchor bolt is not acceptable as it will affect the consolidation of the concrete.

6.Confirmed, the stiffener is 2" thick.

7.Contractor to verify with the anchor rod suppliers for the length of the hex nut. Recommend projection = washer thickness+ hex nut length + 1.5x d Minimum to account for construction tolerance

8.See response to question #7.

9.Confirmed the 1" clear is acceptable.

10.Confirmed that wrench tight is adequate.

T-0771.1 **SSS - Lower Concourse Anchor Bolt Details at Column Base** **Closed** **10/11/2013** **10/21/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

As per the response to RFI# T-0771 please confirm the following:

1. For items 8 & 9 please confirm it is acceptable to have 0" cover at the underside of the concrete beam. See attached sketch SK-1 for clarification.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed that it is acceptable to have 0" cover at the underside of the concrete beam, as the bolt is directly above the concrete column.

2. Confirmed that it is acceptable to use an alignment plate with a 7" diameter center hole

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2. For item 5 please confirm it is acceptable to use an alignment plate with a 7" diameter center hole to allow for the consolidation of concrete and aid the alignment of the threaded bar. See attached sketch SK-2 for clarification.

T-0772 **SSS - Anchor Bolt Details at Column Base** **Closed** **09/30/2013** **10/10/2013** **10/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference Drawing S1-5051 and the attached sketches in regards to the column base details:

1) Confirm that the 1-3/4" anchor bolts as referenced 7/S1-5051 are acceptable to typically locate as shown (reference CD RFI 034 SK1 attached) so that the plate washers clear the stiffener plate and weld.

2) Confirm the plate washer size, thickness and grade is acceptable (reference CD RFI 034 SK1 attached).

3) Confirm that the 2-1/2" anchor bolts as referenced 7/S1-5051 are acceptable to typically locate as shown (reference CD RFI 034 SK2 attached) so that the plate washers clear the stiffener plate and weld

4) Confirm the plate washer size, thickness and grade is acceptable (reference CD RFI 034 SK2 attached).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) confirmed.

2) confirmed.

3) confirmed.

4) Use 1" thick washer plate per anchor rod catalog.

T-0773 **BGP - Geothermal Fields 11, 12, & 13 Layout in Zone 4** **Closed** **09/30/2013** **10/10/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please refer to Spec Section 31 23 34.

To avoid conflicts with trenching through the buttress shaft concrete and rebar, please confirm if either of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/10/2013
RESPONSE:
This should not be an RFI. Our preferred option is to

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proposed options is acceptable.

install as shown on the Contract Documents. Option 1 is not acceptable. Option 2 reduces geothermal system capacity and is a change to the Contract Documents. Per the Contract Documents this contractor proposed change should be submitted as a change order for review by the TJPA or the TJPA's representatives.

T-0774 **BGP-Pre-cutting of CDSM Soldier Pile** **Closed** **09/30/2013** **10/10/2013** **10/21/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author:

REQUEST:

Further, in response to RFI T-725, WOJV is proposing to pre-cut the inside flange of the CDSM beams at the required cut off elevations prior to the installation of the waterproofing system see exhibit A for details, This pre-cutting of the CDSM beams would minimize the possibility of heat damage to the waterproofing system. The remainder of the CDSM beam cutting and top section removal will be completed by the TG012.1 Civil Sitework contractor.
Please confirm if this would be acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
10/18/2013
RESPONSE:
This is a means and method item. Contractor to comply with manufacturer's requirements and recommendations to ensure proper installations and warranties while performing work per contract documents.

T-0775 **BGP-Concrete strength requirement for bracing Removal** **Closed** **09/30/2013** **10/10/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

In accordance with Spec section 31-55-00 1.4 J the contractor is to submit concrete strength results to the design team prior to the removal of internal bracing. In order to fulfill this requirement the contractor has asked the following questions.

1. What is the criteria for bracing removal for instant if the average strength of the concrete cylinders tested is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/9/2013
RESPONSE:
The response of this RFI is limited to the scope of the removal of the lowest level D temporary shoring struts:

1. The criteria for removing the shoring struts is defined in general note FO-5 on sheet S-0005 of the

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calculated to be above the design strength can the internal bracing be removed?

2. Is there any tolerance on the design strength requirement for bracing removal, for example if the concrete has reached 90% of design strength could the bracing be removed? Obviously this could have a positive effect on the construction schedule.

TG03 BSE documents: " F0-5 Do not remove temporary shoring struts against foundation walls until the foundation wall and mat concrete has attained 100% of its design strength."

For consideration of bracing removal prior to 56 day concrete cylinder tests, design strength may be considered achieved when all earlier tested cylinders meet ACI 318 acceptance criteria. For this purpose, "test" in ACI will not be required to be the average of multiple test results of a particular batch.

If the results of the concrete cylinders meet ACI criteria and averages (as defined by ACI) exhibit values above design strength, the element may be considered to have attained its design strength.

2. The lowest level brace D may be removed when the concrete strength has reached 90% of design strength. Note that this is a relaxation of the contract document criteria and limited to the removal of the lowest level brace D.

T-0775.1 **BGP-Concrete strength requirement for level D bracing removal** **Closed** **10/09/2013** **10/19/2013** **10/16/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

To clarify question 2 in RFI T-0775

WOJV is requesting that the level D bracing be removed once the concrete in the mat slab beneath has reached 75% of its design strength.

Please confirm if this would be acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/15/2013
RESPONSE:
RFI T-0775 already allowed a relaxation of the original contract document requirement. To consider the criteria of 75% design strength, the Contractor shall produce all necessary calculations to justify that the 75% strength and the reduced stiffness at 75% strength is sufficient.

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T-0775.2	**BGP-Concrete strength requirement for the level D bracing removal**	**Closed**	**11/15/2013**	**11/25/2013**	**11/20/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-0775.1, Please find attached supporting calculations to justify that the concrete in the mat slab is sufficient at 3000 psi to removal the level D bracing.

Please confirm that this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/19/2013
RESPONSE:
A submittal is required to address the contents of this RFI.

T-0776	**BGP - Mat Slab Construction Joint Between Area 2 and Area 4**	**Closed**	**10/01/2013**	**10/11/2013**	**10/03/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please refer to attached excerpt drawing CJ-04 from submittal package TG0600-030.3, Item ID #033000-003.3.

As discussed and coordinated in various Progress Meetings, SCCI plans to combine slab pours S102 and S104 into one pour without bulkhead forms in between. The specificaitons do not restict SCCI from using bulkheads in the east and west directions. The returned construction joint layout shop drawing review comments do not reflect the coordinated revised construction joint.

Please confirm it is acceptable to combine slab placement areas S102 and S104 into one pour without bulkhead forms in between.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/3/2013
RESPONSE:
The construction joints submitted and approved in Submittal TG0600-030.2 (Item 033000-003.2) dated May 29, 2013 were acceptable to the design team and formed the basis for CTL's Submittal TG0600-201.1 (Item 033020-011).

CTL (Shimmick's consultant) indicates that slab cracking becomes increasingly likely when aspect ratios exceed 1.5:1. TT notes that the revised construction joint layout creates an additional high aspect ratio pour. While TT does not recommend the elimination of the joint, the contractor may at their own risk eliminate the joint between Area S102 and S104 per the revised joint layout contained in Submittal TG0600-030.3 (Item 033000-003.3) dated September 17, 2013. Further, the contractor shall verify that the new geometry does not change the previously issued CTL submittals.

T-0777	**BGP - FF & FL Values for Concourse Slab**	**Closed**	**10/02/2013**	**10/12/2013**	**10/17/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Please refer to attached RFI T-0691.

This RFI is being submitted in response to RFI response T-0691. As per contract specification section 033020, Section 3.6.B the concrete finish of the lower concourse slab notes an FF value of 20.

Table 8.15.3b of ACI 302.1R (page 46) states that to achieve a surface with an FF value of 20, it must be a smooth floated surface. ACI 302.1R does not provide any recommendations of "F" numbers for broomed surfaces.

Please confirm the design intent for the concourse slab finish: 1. To have a rough broom/rake finish or 2. To have the concourse slab finished to an FF value of 20.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/16/2013
RESPONSE:
The Lower Concourse shall be finished to the FF and FL numbers contained in the Specification 03 30 20, Section 3.6B-1a. Section 3.6B-1a will take precedence over Section 3.6B-1c.

T-0778 | **BGP - Electrical Equipment and Box Layout in Electrical Room B2640 - Area 15** | **Closed** | **10/02/2013** | **10/12/2013** | **10/25/2013** | **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please reference drawing E1-2026 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, please confirm the proposed "...location of outlets, fixtures and equipment..." layout as shown in the attached SCCI sketch SK-RFI-337 for Electrical Room B2640 in Area 15 is acceptable.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/10/2013
RESPONSE:
WSP has reviewed these layouts for conformance with electrical equipment locations and layouts are in conformance with the Contract Documents. As noted in response to RFI 0665.1, documentation should be presented on CAD for review and approval, hand sketches are not acceptable.

T-0778.1 | **BGP - Electrical Equipment and Box Layout in Electrical Room B2640 - Area 15** | **Closed** | **10/28/2013** | **11/07/2013** | **10/30/2013** | **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI #T-0778, drawing El-2026, and Spec Section 26 05 34.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

RFI #0778 response proposes layout for electrical equipment and box layout in Electrical Room B2640 - Area 08 in CAD format. See attached.

Please confirm layout is acceptable.

RESPONSE:
WSP cannot review these layouts because walls have not been properly coordinated. Refer to markup from AAI. Further submissions of equipment layouts should be submitted as shop drawings on CAD backgrounds for proper coordination.

T-0778.2 **BGP - Electrical Equipment and Box Layout in Electrical Room B2640 - Area 15** **Closed** **12/20/2013** **12/30/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeremy Lau

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference RFI #T-0779, drawing EI-2024, and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached proposed layout SCCI sketch SK-RFI-337.1 for Electrical Room B2640 in Area 15 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
12/23/2013
RESPONSE:
Per design team, Delete the subcontractor's request regarding additional cost.

Please submit layout in shop drawing submission for all areas.

T-0778.3 **BGP - Electrical Equipment and Box Layout in Electrical Room B2640 - Area 15** **Open** **01/28/2014** **02/07/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

Please reference RFI #T-0779, drawing EI-2024, and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached proposed layout SCCI sketch SK-RFI-337.1 for Electrical Room B2640 in Area 15 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

Please note this RFI is being remitted per coordination meeting between AAI, WOJV, SCCI and TCCO to exclude SCCI's version of the RFI; referencing cost impacts.

T-0779 **BGP - Electrical Equipment and Box Layout in Electrical Room B2461 - Area 8** **Closed** **10/02/2013** **10/12/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please reference drawing E1-2024 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, please confirm the proposed "...location of outlets, fixtures and equipment..." layout as shown in the attached SCCI sketch SK-RFI-336 for Electrical Room B2461 in Area 08 is acceptable.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/10/2013
RESPONSE:
WSP has reviewed these layouts for conformance with electrical equipment locations and layouts are in conformance with the Contract Documents. As noted in response to RFI 0665.1, documentation should be presented on CAD for review and approval, hand sketches are not acceptable.

T-0779.1 **BGP - Electrical Equipment and Box Layout in Electrical Room B2461 - Area 8** **Closed** **10/28/2013** **11/07/2013** **10/31/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI #T-0779, drawing El-2024, and Spec Section 26 05 34.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE: RFI T-0779.1 BGP - Electrical Equipment and Box Layout in Electrical Room B2461 -

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

RFI #T - 0779 response proposes layout for electrical equipment and box layout in Electrical Room B2461 - Area 08 in CAD format. See attached.

Please confirm layout is acceptable.

Area 8

George Metzger
10/29/2013
RESPONSE:
WSP cannot review these layouts because walls have not been properly coordinated. Refer to markup from AAI. Further submissions of equipment layouts should be submitted as shop drawings on CAD backgrounds for proper coordination.

T-0779.2 **BGP - Electrical Equipment and Box Layout in Electrical Room B2461 - Area 8** **Closed** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference RFI #T-0779, drawing EI-2024, and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-336.1 for Electrical Room B2461 in Area 08 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0779.3 **BGP - Electrical Equipment and Box Layout in Electrical Room B2461 - Area 8** **Open** **01/28/2014** **02/07/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please reference RFI #T-0779, drawing EI-2024, and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-336.1 for Electrical Room B2461 in Area 08 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

Please note this RFI is being remitted per coordination meeting between AAI, WOJV, SCCI and TCCO on 1/10, to exclude SCCI's version of the RFI which makes reference to cost impacts.

T-0780 **BGP - Electrical Equipment and Box Layout in Electrical Room B2460 - Area 08** **Closed** **10/02/2013** **10/12/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Please reference drawing E1-2026, A1-2104 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, please confirm the proposed "...location of outlets, fixtures and equipment..." layout as shown in the attached SCCI sketch SK-RFI-335 for Electrical Room B2460 in Area 08 is acceptable.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/10/2013
RESPONSE:
WSP has reviewed these layouts for conformance with electrical equipment locations. The layout dimensioning should be revised as noted in the attachments to be in conformance with the Contract Documents. As previously noted in response to RFI 0665.1, documentation should be presented on CAD for review and approval, hand sketches are not acceptable.

T-0780.1 **BGP - Electrical Equipment and Box Layout in Electrical Room B2460 - Area 08** **Closed** **10/28/2013** **11/07/2013** **10/30/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:
Please reference RFI #T-0780, drawings El-2026 and Al-2104, and Spec Section 26 05 34.

RFI #T - 0780 response proposes layout for electrical equipment and box layout in Electrical Room B2460 - Area 08 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger
10/29/2013
RESPONSE:
WSP cannot review these layouts because walls have not been properly coordinated. Refer to markup from AAI. Further submissions of equipment layouts should be submitted as shop drawings on CAD backgrounds for proper coordination.

T-0780.2 **BGP - Electrical Equipment and Box Layout in Electrical Room B2460 - Area 08** **Closed** **12/20/2013** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:
Please reference RFI #T-0780, drawings El-2026 and Al-2104, and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-335.1 for Electrical Room B2460 in Area 08 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger
12/27/2013
RESPONSE:
WSP response: WSP has reviewed these layouts for conformance with electrical equipment locations and layouts are in conformance with the Contract Documents.

Judy Long
12/23/2013
RESPONSE:
Per design team, Delete the subcontractor's request regarding additional cost.

Please submit layout in shop drawing submission for all areas.

T-0781 **BGP - Electrical Equipment and Box Layout in Electrical Room B2441 - Area 09** **Closed** **10/02/2013** **10/12/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:
Please reference drawing E1-2024, A1-2104 and Spec

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, please confirm the proposed "...location of outlets, fixtures and equipment..." layout as shown in the attached SCCI sketch SK-RFI-334 for Electrical Room B2441 in Area 09 is acceptable.

Please advise.

10/10/2013
RESPONSE:
WSP has reviewed these layouts for conformance with electrical equipment locations and layouts are in conformance with the Contract Documents. As noted in response to RFI 0655.1, documentation should be presented on CAD for review and approval, hand sketches are not acceptable.

T-0781.1 **BGP - Electrical Equipment and Box Layout in Electrical Room B2441 - Area 09** **Closed** **10/28/2013** **11/07/2013** **10/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI #T-0781, drawings El-2024 and Al-2104 and Spec Section 26 05 34.

RFI #T-0781 response proposes layout for electrical equipment box layout in Electrical Room B2441 - Area 09 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013
RESPONSE:
WSP cannot review these layouts because walls have not been properly coordinated. Refer to markup from AAI. Further submissions of equipment layouts should be submitted as shop drawings on CAD backgrounds for proper coordination.

T-0781.2 **BGP - Electrical Equipment and Box Layout in Electrical Room B2441 - Area 09** **Closed** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference RFI #T-0781, drawings El-2024 and Al-2104 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-334.1 for Electrical Room B2441 in Area 09 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

T-0781.3 **BGP - Electrical Equipment and Box Layout in Electrical Room B2441 - Area 09** **Open** **01/28/2014** **02/07/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

Please reference RFI #T-0781, drawings El-2024 and Al-2104 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-334.1 for Electrical Room B2441 in Area 09 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

Please note this RFI is being remitted per coordination meeting between AAI, WOJV, SCCI and TCCO on 1/10, to exclude SCCI's version of the RFI which makes reference to cost impacts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0782 **BGP - Electrical Equipment and Box Layout in Electrical Room B2560 - Area 09** **Open** **10/02/2013** **10/02/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please reference drawing E1-2025, A1-2105 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, please confirm the proposed "...location of outlets, fixtures and equipment..." layout as shown in the attached SCCI sketch SK-RFI-333 for Electrical Room B2560 in Area 09 is acceptable.

Please advise.

George Metzger
10/10/2013
RESPONSE:
WSP has reviewed these layouts for conformance with electrical equipment locations. The layout dimensioning should be revised as noted in the attachments to be in conformance with the Contract Documents. As previously noted in response to RFI 0665.1, documentation should be presented on CAD for review and approval, hand sketches are not acceptable.

T-0782.1 **BGP - Electrical Equipment and Box Layout in Electrical Room B2560 - Area 10** **Closed** **10/28/2013** **11/07/2013** **10/31/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI #T-0782, drawing EI-2025, AI-2105, and Spec Section 26 05 34.

RFI #T -0782 response proposes layout for electrical equipment and box layout in Electrical Room B2560 - Area I0 in CAD format. See attached.

Please confirm that the layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013
RESPONSE:
WSP cannot review these layouts because walls have not been properly coordinated. Refer to markup from AAI. Further submissions of equipment layouts should be submitted as shop drawings on CAD backgrounds for proper coordination.

T-0782.2 **BGP - Electrical Equipment and Box Layout in Electrical Room B2560 - Area 10** **Closed** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference drawing E1-2025, A1-2105 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-333.1 for Electrical Room B2560 in Area 10 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

T-0782.3 **BGP - Electrical Equipment and Box Layout in Electrical Room B2560 - Area 10** **Open** **01/28/2014** **02/07/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

Please reference drawing E1-2025, A1-2105 and Spec Section 26 05 34.

As per spec section requirement 26 05 34 - Raceways and Boxes, Article 3.2 - B, the "...location of outlets, fixtures and equipment is governed by field conditions...verify final location of outlets, fixture and equipment with the TJPA through the RFI process."

Please confirm the coordinated equipment layout with the knee walls per RFI T-0899 as shown in the attached as-built layout SCCI sketch SK-RFI-333.1 for Electrical Room B2560 in Area 10 is acceptable. Please refer to the conduit layout in submittal shop drawing package TG0600-905.

Please note this RFI is being remitted per coordination meeting between AAI, WOJV, SCCI and TCCO on 1/10, to exclude SCCI's version of the RFI which makes reference to cost impacts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0783 **BGP- CDSM Soldier Pile Encroachment Area 11** **Closed** **10/18/2013** **10/28/2013** **10/24/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north & south wall in mat slab pour Area 11 as well as all levels of the encroachment into the foundation wall between CDSM piles 188 to 236 on the north elevation and 548 to 571 on the south elevation for Location Plan see exhibit - A

Exhibit - B & C depict the location and degree in which the SP are encroaching

WOJV proposal North elevation on gridline A: (See Exhibit - B) between CDSM pile 234 to 236, WOJV is proposing to decrease the specified 36" wall thickness to 34' to clear the encroaching SP 235. Originally this was a WR1 reinforcement areas #11@8"oc EF vertically and would change to #11@6" OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.1 (Exhibit - D).

WOJV proposal on the South elevation: (See Exhibit - B) Between CDSM piles 548 to 551 WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching SP 550, originally this was a WR1 reinforcement areas #11@8" oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.1 (Exhibit - D).

In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.

See Exhibit - E & F showing details of transition between modified reinforcement to contract reinforcement.

These solutions if approved would be incorporated into the TG06 shop drawings.

Please confirm if these solutions would be acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/23/2013
RESPONSE:
The contractor proposed revisions to foundation wall reinforcement due to encroaching CDSM Piles in Area 11 are acceptable.

T-0784	**BGP- CDSM Soldier Pile Encroachment Area 12**	**Closed**	**10/18/2013**	**10/18/2013**	**10/24/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** **Answered By:**

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Turner Construction Compan Gary Krutsch — Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

This RFI addresses the impact of the encroaching CDSM soldier piles (SP) on the north elevation in mat slab pour Area 12 for location Plan see exhibit - A. This RFI is subject to revision as the current survey data available does not recorded positioning of the CDSM beams at the lowest mat slab elevation.
Exhibit - B, & C depict the location and degree in which the SP are encroaching

WOJV proposal North elevation on gridline A: (See Exhibit - B) between CDSM pile254 to 257, WOJV is proposing to decrease the specified 36" wall thickness to 34" to clear the encroaching SP 255 & 256. Originally this was a WR1 reinforcement areas #11@8"oc EF vertically and would change to #11@6"OC, the reduction in foundation wall thickness would be compensated by reducing the rebar spacing predicated on Detail A/Sk.1 (Exhibit - D).

The South elevation has no encroaching piles and therefore the reinforcement would remain unchanged per the contract drawings

In all other areas without CDSM pile encroachment issues the reinforcement will remain unchanged as per the Contract drawings.

See Exhibit - E which shows a detail of transition between modified reinforcement to contract reinforcement.

This solution if approved would be incorporated into the TG06 shop drawings.

Please confirm if these solutions would be acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/23/2013
RESPONSE:
The contractor proposed revisions to foundation wall reinforcement due to encroaching CDSM Piles in Area 12 are acceptable. We note that the survey data for CDSM piles near the mat level is not provided in this RFI. Once that information is available, the encroachment information and therefore the foundation wall reinforcement in Area 12 may require further revision.

T-0785	BGP - Column Type C31/D22 Vertical Coupler Layout	Closed	10/03/2013	10/03/2013	10/08/2013	Potentially ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing 1/S1-3300, S1-3301, S1-3306 and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

attached Sketch SK-90.

Detail 1/S1-3301 requires the couplers for the adjacent column vertical bars be staggered with a vertical distance of 24" or more; however, due to the pattern and spacing of vertical bars for the type C31/D22 detailed on S1-3306, the condition cannot be met. Attached is Gerdau sketch SK-90 - C31/C22 Column Vert Layout with a proposed pattern for the vertical bars in the type C1/D22 columns.

Please confirm the proposed concrete reinforcement detail shown in the attached sketch is acceptable for type C31/D22 columns.

10/7/2013
RESPONSE:
Contractor proposed configuration for placement of vertical bars for Column C31 is acceptable.

T-0785.1 **BGP - Type C8 & C9 Coupler Stagger Revised Pattern** **Closed** **01/17/2014** **01/27/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Reference: RFI T-0785 and drawings s1-3300, S1-3301 and S1-3305.

Detail 1/S1-3301 requires the couplers for the adjacent column vertical bars be staggered with a vertical distance of 24" or more; however, due to the pattern and spacing of vertical bars for the type C8/D9 detailed on S1-3305, the condition cannot be met. The attached SCCI sketch SK-RFI418, is the proposed pattern for the vertical bars in the type C8/D9 columns, please confirm if it is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE: RFI T-0785.1 BGP - Type C8 & C9 Coupler Stagger Revised Pattern

George Metzger
1/24/2014
RESPONSE:
The proposed stagger is acceptable

T-0786 **SSS - Light Column Clevis Pin Material** **Closed** **10/04/2013** **10/14/2013** **10/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-6006

Note on drawing S1-6006 states "ALL CLEVIS PINS AISI 5160 STEEL, OIL QUENCHED FROM 830C, 650C

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We checked the proposed substitution with regard to chemical composition and strength requirements. An acceptable substitution for the pin material is ASTM-A540 grade B23, class 4.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

TEMPER OR DIN 34 CRNIMO 6 + QT CODE EN 10083". The pin manufacturer, Dyson Corp., indicates this material is not available and suggests a substitution to ASTM-A540 grade 823, class 5 (see attachment).

T-0787 **SSS - Charpy V-Notch Impact Testing Requirements** **Closed** **10/04/2013** **10/14/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please confirm the following regarding the Charpy V-Notch (CVN) testing requirements for the project:

· The members identified on the attached sketches (SFRS - SK) are the only members that are part of the Seismic Force Resisting System (SFRS/SLRS/MF/BF) and are CVN tested in accordance with AISC 341-10 "Heavy Section" definition.
o Except from AISC 341-10: "For structural steel in the SFRS, hot rolled shapes with flanges 1-1/2" thick and thicker shall have a minimum CVN toughness of 20 ft-lb at 70°F, tested in the alternate core location as described in ASTM A6 Supplementary Requirement S30. Plates 2" thick and thicker shall have a minimum CVN toughness of 20 ft-lb at 70°F, measured at any location permitted by ASTM A673, Frequency P, where the plates is used for the following:"
- Members built up form plate
-The steel core of buckling restrained braces

· SFRS/SLRS/MF material will use the "Heavy Section" definition from AISC 341-10: hot rolled shapes with flanges 1-1/2" thick and thicker and plate 2" thick and thicker.

· Non SFRS/SLRS/MF material will use the project specification, Section 05 10 00, Part 1, 1.2, C.6, "Heavy Section" definition: hot rolled shapes with flanges exceeding 1-1/2" thick and plates exceeding 2" thick.

· Non SFRS/SLRS/MF material will be CVN tested in

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) In elevation sheets S1-4101 through S1-4116; moment frame columns, transfer girders and tapered roof girders are part of Seismic Framing (SFRS). In this RFI, only moment frame beams are highlighted by the Contractor as SFRS in these sheets. As indicated in Sheet S1-2302 (see Sheet Notes), Sheets S1-4101 through S1-4116 include "superstructure transverse seismic frame elevations".

2-) RFI correctly highlighted all the members in the "longitudinal seismic framing elevations" as SFRS. This was also indicated in Sheet S1-2302 (Sheet Notes).

3-) Buckling Restrained Braces are part of SFRS. If core plates within the BRBs 2" or thicker (unlikely since the specified BRB steel core area is relatively small), AISC 341-10 Heavy Section CVN requirements will apply.

4-) Ground Level Gridline G beams between Gridlines 12 and 16.9 are SFRS. Note that RFI correctly highlights these beams as SFRS in longitudinal seismic framing elevation views. However, they were not shown as SFRS in the plans.

5-) 2nd Floor Gridline D beam between Gridlines 16 and 16.9 is SFRS as indicated in construction drawings.

6-) For pipe columns (large diameter tubular sections), CVN requirements are as indicated in General Notes

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0788	BGP - Areas 5 and 6 EW Top Mat Reinforcing at South Wall Radius	Closed	10/04/2013	10/14/2013	10/04/2013	Potentially	☐

accordance with note SS-9 on drawing S-0007. These testing requirements apply only to steel using complete joint penetration groove welds that fuse through the thickness of a flange or web. Members or plates that meet this criteria shall be CVN tested as follows:

o ASTMA6/A6M hot rolled shapes with a flange thickness exceeding 2" and built-up heavy shapes with plates exceeding 2" in thickness shall have a minimum CVN toughness of 20 ft-lb at 70°F.

o ASTM A709 hot rolled shapes with a flange thickness exceeding 2" and plates exceeding 2" in thickness shall have a minimum CVN toughness of 30 ft-lb at 70°F.

o ASTM A709 hot rolled shapes with a flange thickness less than or equal to 2" and plates less than or equal to 2" in thickness shall have a minimum CVN toughness of 25 ft-lb at 70°F.

The testing is in accordance with ASTM A673. The frequency is H.

o For "Heavy" rolled shapes, as defined by 05 10 00, test to be in accordance with ASTM A6/A6M, supplementary requirement S30, CVN impact test for structural shapes ¿ alternate core location. The testing is in accordance with ASTM A673. The testing frequency is H.

o For "Heavy" built-up shapes, as defined by 05 10 00, test to be in accordance with ASTM A6/A6M, supplementary requirement S5, CVN test. The testing is in accordance with ASTM A673. The testing frequency is P.

- Confirm that the exception noted in the response to SK RFI 020 (W/O T-0732) for the built-up train box columns still applies which states that for the built-up heavy plates of the train box columns frequency H testing is acceptable.

Please confirm that this RFI, and its response, shall be the governing document for all CVN testing for the structural steel shapes, plates and bars, and that no further testing, beyond what is explicitly stated within the RFI and its response is required.

SS-1 (API 5L, Product Specification Level 2). CVN requirements for alternative material options for pipe columns are also provided in the same section of General Notes. Note that the CVN requirement for option 1 (API 2B) and option 2 (Spuncast pipe) shall be 30 ft-lb at 0 degree Centigrade (not 0 degree Fahrenheit). This revision is to a higher temperature therefore to a less stringent CVN requirement.

7-) CVN requirements for steel below grade columns are as indicated in our response to RFI T-0732.

8-) For Non SFRS/SLRS members, the testing requirements indicated in General Note SS-9 apply to a) steel using CJP welds that fuse through the thickness of a flange or web, b) members that are spliced using CJP welding (see meeting minutes, 09/26/13 - Weekly Structural Issues Coordination).

We note that scope of this RFI is limited to CVN requirements for steel plates.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Refer to the attached sketch 131003_S105-S106 South Radius.

In Areas S105 and S106, EW top mat reinforcing makes an increasingly acute angle with the south wall. This eventually prevents the reinforcing from penetrating the haunch and wall reinforcing curtains to reach the edge of the mat.

Per field coordination, please confirm it is acceptable to terminate EW top mat reinforcing in a hook prior to reaching the edge of the mat slab provided the following provisions are as followed:

- All terminating EW top mat reinforcing shall be hooked
- Where the angle becomes such that the mat reinforcing cannot penetrate the inner wall reinforcing. The reinforcing may terminate immediately in front of the wall reinforcing inside the haunch. This is labeled Zone 1 in the sketch.
- In Zone 1, single haunch bars that interfere with penetration of mat reinforcing into the haunch shall be relocated to allow penetration. Relocation will be to the nearest adjacent placement opportunity without regard to the 8" spacing module. Clear spacing, however, between haunch bars shall be maintained.
- The total number of haunch bars will remain unchanged.
- In Zone 1, provide a curved band of reinforcing at the typical size and spacing of the mat within the wall.
- Where the angle becomes such that the mat reinforcing cannot penetrate the haunch without relocating more than one haunch bar, reinforcing may terminate at the toe of the haunch. This is labeled Zone 2 in the sketch.
- In Zone 2, provide a curved band of reinforcing at the typical size and spacing of the mat within the haunch.
- Zone 1 and Zone 2 bands will overlap typical reinforcing by the distance LTS.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/4/2013
RESPONSE:
It is acceptable to terminate EW top mat reinforcing of Areas S105 and S106 prior to reaching the edge of the mat as described in the RFI.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0789	**ASI 106 - Forced Air Thermal Cooling addition to LCC Nodes**	**Closed**	**10/07/2013**	**10/17/2013**	**10/21/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference: Attached Bradken letter

ASI 106 specification section 05 15 21 2.1.B.2.a.1.f calls for "casting to be normalized with forced air cooling."; however, in order to reach other requirements (chemistry, carbon equivalent, and mechanical properties) Skanska will need to water quench the material to achieve the mechanical properties specificed for the nodes.

The addition of this specification requirement willl greatly affect Bradkens ability to deliver the product, thus Bradken is requesting that this change to the specifications be removed.

The heat treatment proposed by Bradken/Skanska (liquid quenching) is acceptable to replace normalized and force air cool thermal treatment specified in 05 15 21.

T-0790 **SSS - Anchor Bolt Diameter Clarification** **Closed** **10/07/2013** **10/17/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-5051

See attached CD RFI 043 SK1 & SK2 and confirm the anchor bolts for the columns at Grids 21/D.4 & 21//E.6 are 1" diameter per 7/S1-5051.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Anchor bolts are 3/4" diameter. The details for 3/4" diameter anchor is similar to the ones for 1" diameter (Type T anchor bolts). At the contractor's option without additional cost to TJPA, 1" diameter anchor bolt is acceptable to substitute the 3/4" diameter anchor bolt.

T-0791 **SSS - Anchor Plate Dimensions** **Closed** **10/07/2013** **10/17/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached CD RFI 044 SK1 and confirm the noted plate washer dimensions are sufficient for the 2 1/2" dia. anchor bolts. Additionally confirm that the plate washer thickness may be ½" as per Detail 3 Section A, not 2" as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The plate washer dimension is correct as shown (2' x 4" x 4").

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0792	**SSS - Anchor Bolt Detail Clarification**	**Closed**	**10/07/2013**	**10/17/2013**	**10/21/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-5051

1) The plate washer will clear the fillet weld by 3/16". This is not sufficient to accommodate the maximum anchor bolt as-built tolerance based on the maximum oversize holes per A.I.S.C. Please advise.

2) The plate washer will clear the fillet weld by 1/4". This is not sufficient to accommodate the maximum anchor bolt as-built tolerance based on the maximum oversize holes per A.I.S.C. Confirm it is acceptable to locate the anchor bolts 5 1/2" from the center of the column.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In the direction parallel to column web, moving the anchor bolts to 5-1/2" from column center line as proposed in RFI will cause washer plates to clash with column flange (or welds). To alleviate this problem, suggest locating the 2 1/2" anchor bolts 4" from column center line (in direction parallel to web). The plate washer for the lower nut may be deleted.

In the direction perpendicular to column web, moving the anchor bolts as proposed in this RFI is acceptable.

T-0793	**SSS - Connection Plates at Type 2 Drag Connections**	**Closed**	**10/07/2013**	**10/17/2013**	**10/22/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-5017 for the Type 2 Drag connections there are finger type connections where the carrying plates on the beams slide between the framing plates. In order for the beams to side down between these shop attached plates during erection please confirm a 1/8" clearance is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the proposed 1/8" gap is acceptable.

T-0795	**SSS - Transfer Girder Stiffener Configuration**	**Closed**	**10/07/2013**	**10/17/2013**	**10/11/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference Draiwngs: S1-4302 & S1-5052

Stiffeners required on TR9 transfer girder (A/ S1-4302) at line F are fouling. Stiffeners were detailed as per 2/ S1-5052 and 4/ S1-5052. See attached sketch CD RFI 040 SK1 for clarification. We propose to trim the stiffeners by ½" to avoid fouling.

Please advise if this proposal is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Trimming not required. Interference for this case can be avoided moving the below grade column stiffener 1/2" towards the center of the column.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0796	SSS - Transfer Girder Stiffener Thickness	Closed	10/07/2013	10/17/2013	10/09/2013	Potentially	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-4300, S1-4308, S1-5052

For columns above transfer girders Detail 1/ S1-5052 calls out thicknesses of "X=1 1/2" for tfc <2 or tfc=2" and "X=2" for tfc >2"). For columns that are below transfer girders 4/ S1-5052 calls out "2 1/2" thk stiffener PL ea side, typ. (see note 3)". Note 3 states "Stiffeners required UON in transfer girder elevations".

Where columns are directly above and below a transfer girder and full height stiffeners are shown per transfer girder elevations, please advise on what thickness these full height stiffeners should be.

*Please note that 1/S1-5052 is also referred to on 2 and 6/S1-5052.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

When a below grade column is present immediately below an above grade column, full depth stiffeners that line up with the flanges of the column above are used within the transfer girder. Therefore, Details 1, 2 or 6/S1-5052, which are for above grade columns, govern the thickness of the full height stiffeners. This condition is indicated by Note 4 of Detail 1/S1-5052 which states, the stiffeners are half-depth UON in transfer girder elevations. For information not shown in Detail 2 and 6/S1-5052 (see Note 2 in these details), Detail 1/S1-5052 is referred to as correctly understood by the contractor.

Note that where the above grade columns are connected to the transfer girders via castings, different details apply and stiffener requirements are different. Refer to corresponding details from Transfer Girder elevations.

T-0797	BGP - Mat Slab Construction Joint Conflicts in Area 8	Closed	10/08/2013	10/18/2013	10/16/2013	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please refer to attached photos, excerpt drawing CJ-05 from submittal package TG0600-030.3 and SCCI sketch SK-0341.

The east side of the mat slab construction joint of Area 8 (S108) has several constructability issues with the mat keyway and other project structure elements. The following are identified conflicts and SCCI proposed remediation:

1. The current east construction joint layout in Area 8 falls within the row of micropiles as shown in attached Photo-1 and Photo-2. SCCI intends to jog the joint an addition 12" +/- to the East of GL 16.6 to clear the micropile conflict
2. The east construction joint of area 8 currently jogs thru the thickened slab section at GL 16.6/G.3. SCCI intends to shift the joint Eastward to capture the thickened section

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/15/2013
RESPONSE:
1. We assume the RFI means to state the proposed shift is "... 12"+/- to the East towards GL 16.6..." (and not "...12"+/- to the East of GL 16.6...") as graphically depicted in the RFI sketch SK-341. This is acceptable.

2. The proposed jog around the pit/thickened slab is not acceptable as proposed. However, an acceptable alternative would be to turn the CJ westward along (or parallel) to GL F.7 within S108 and then turn 90 degrees south to align with the CJ on the west side of wall W160.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

within the Area 8 pour.

Please confirm the revised construction joint layout shown the attached SCCI sketch SK-341 is acceptable.

T-0798 **BGP - Mat Slab Construction Joint (east side) Conflicts in Area 09** **Closed** **10/08/2013** **10/18/2013** **10/16/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

REQUEST:

Please refer to attached SCCI sketch SK-345 and drawing (CJ-05) excerpt from submittal package TG0600-30.2.

The east side of the mat slab construction joint of Area 09 (S109) has several constructability issues wih the mat keyway and other project structure elements. SCCI proposes to install the CJ between area 09 and 10 as shown on the attached sketch.

Please confirm the revised construction joint layout as shown in the attached SCCI sketch SK-342 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/15/2013
RESPONSE:
The proposed mat joint between S109 and S110 is acceptable.

Refer to RFI T-0797 for the joint on west side of area 9 between S109 and S108.

T-0799 **BGP - Partition Wall Pilaster and Plumbing Conflict at GL C.5/4.8** **Closed** **10/08/2013** **10/18/2013** **10/10/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2052 and S1-9050.

The reinforcement for the partition wall pilaster at approximately GL C.5/4.8 is in conflict with the drainage pipe below. Per note 3 on detail 9/S1-9050 the ties will be installed if possible.

Two vertical bars in the pilaster will have to be bent in order to clear the pipe and two others will have to be slightly displaced to clear the pipe. See the attached

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/9/2013
RESPONSE:
The revised reinforcement detail for pilaster near Grid C.5/4.8 as described in the RFI is acceptable

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Gerdau sketch SK-93 for details.

Please confirm the revised reinforcement detail for the partition wall pilaster as detailed in sketch SK-93 is acceptable.

T-0800 **SSS - Top of Base Plate Elevation Clarification** **Closed** **10/08/2013** **10/18/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawing: S1-3621, S1-5051

The top of base plate elevation at Grids 21.0/D.4 & 21.0/E.6 is shown as -4"-4 1/2 in 2/S1-5051 but when working with detail 5/S1-3621, the top of base plate elevation is -4' -6 1/2. Please refer to attached CD RFI # 041 SK1 to SK3 and provide the top of base plate elevation to be used at the noted Grids.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, the top of the base plate for grids 21.0/D.4 & 21.0/E.6 shall be at (-) 4'-6 1/2".

T-0801 **SSS - Revit Model Dimension Verification** **Closed** **10/08/2013** **10/18/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-2302, S1-2303 & S1-2304 there are some beam & HSS member locations that are not located on the design drawings therefore we have used the Revit model to locate these members. On sketch CD RFI 047 SK1 to SK3 please verify all clouded dimensions that were taken from the latest Revit model received 9/12/13 to locate the steel in question.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See response to RFI-0769. Resubmit the RFI considering the guidelines provided in the response to RFI-0769 to locate beams on floor plans

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T-0802 **BGP - Mat Slab Construction Joint (east side) Conflicts in Area 10** **Closed** **10/08/2013** **10/18/2013** **10/16/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Filip Filipic

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Please refer to attached SCCI sketch SK-345 and drawing (CJ-05) excerpt from submittal package TG0600-30.2.

The east side of the mat slab construction joint of Area 10 (S110) has several constructability issues wih the mat keyway and other project structure elements. SCCI proposed to install the CJ between area 10 and 11 as shown on the attached sketches.

Please confirm the revised construction joint layout as shown in the attached SCCI sketch SK-345 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/15/2013
RESPONSE:
The proposed mat joint between S110 and S111 is acceptable.

Refer to RFI T-0798 for the joint on west side of area 10 between S110 and S111.

T-0803 **SSS - 2nd Level Revit Model Dimension Verification** **Closed** **10/08/2013** **10/18/2013** **10/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-2402, S1-2403, S1-2404, S1-2406 & S1-2407 there are some beam & HSS member locations that are not located on the design drawings therefore we have used the Revit model to locate these members. On sketches CD RFI 048 SK1 to SK5 please verify all clouded dimensions that were taken from the latest Revit model received 9/12/13 to locate the steel in question

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Revit model is not a contract document. See response to RFI-0769. Resubmit the RFI considering the guidelines provided in the response to RFI-0769 to locate beams on floor plans.

T-0803.1 **SSS - 2nd Level Revit Model Dimension Verification** **Closed** **11/22/2013** **12/02/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On the response to Webcor RFI # T-0769 (SK RFI # SK 050) & T-0803 SK RFI # 067) we have reviewed and located most of the beam locations in question using the nearest gridlines, architectural dwg's, partial plans, equal spacing, etc per the noted guidelines in the response. However on drawings S1-2402, S1-2403, S1-2404, S1-2406 & S1-2407 there are still some beam locations that cannot be located and require verification therefore on sketches CD RFI 048.1 SK1 to SK5 please verify all

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Responses to the queries on dimensions for locating beams on floor plans have been noted on the attached sketches SKS-0307 through SKS-0311 and SKA-2970.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

clouded dimensions in RED as noted to close this RFI.

T-0804 **SSS - W21 Beam Substitution** **Closed** **10/08/2013** **10/18/2013** **10/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

With reference to the W21x44 and W21x50 beams shown on Dwgs S1-2302 to S1-2307 (Ground Level), S1-2402 to S1-2407 (Second Level), Dwgs S1-2502 to S1-2507 (Bus Level) and Dwgs S1-2602 to S1-2607 (Roof Park Level), these beams have relatively narrow flanges. These beams sizes are problematic with regard to stability during erection for spans over 30 feet in length. The substitution of the W21x48 for the W21x44 and W21x55 for the W21x50 would resolve the stability issue. Please advise if these substitutions are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In general, where there is no shaft opening or recess on either one or both sides of the W21, the proposed substitutions for temporary erection stability are acceptable as long as there is no additional cost to TJPA. However, where there is an opening or recess on either one or both sides of the W21, substituting W21x44 or W50 with a beam with wider flange might negatively affect the edge clearance. Skanska may decide to move the beam to gain the same edge distance and submit the revised framing plan (with dimensions) as a RFI.

T-0805 **BGP-Area 7 level D bracing removal** **Closed** **10/08/2013** **10/18/2013** **10/21/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-0641 please find attached supporting information from the internal bracing designer (PB&A) see exhibits B this information is a three dimensional structural analysis of the CDSM wall and bracing system. WOJV is proposing the removal of the level D bracing in area 7 and also the bracing which spans across the Construction joints between Areas 6 & 7 and Areas 7 & 8 waler (WD-09 to WD-12, & WD-60 to WD-63 as well as struts 20-25 level D See SK-1 2 &3 in exhibit A) The removal of this bracing will allow all the first lift of wall to be completed in area 7 and mitigate any possible delays to the construction schedule.
As part of this bracing removal process, WOJV will also put a monitoring plan in place to monitor the CDSM beams which will be unsupported by either the concrete of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/17/2013
RESPONSE:
For the condition where the Level D bracing will be removed above a poured mat slab that has not reached adequate strength, the structural engineer should comment as to the appropriateness of this.

Where mat slabs are not yet poured, Level D bracing removal will allow additional movement and pose a risk of cracking and loss of watertightness of the CDSM material as compared to the sequence illustrated on drawing GT-1112. Therefore we recommend that the early removal of the Level D bracing not be done.

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mat slab or the level D walers and struts see exhibit C

Please confirm if this would be acceptable

T-0806 **SSS - Backing Bar Removal from CJP Welds** **Closed** **10/09/2013** **10/19/2013** **10/11/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

1. In reference to AWS D1.1, Skanska has not found any members or connections identified on the drawings as 'subject to cyclical loading'. Therefore, it is our understanding that the provisions of AWS D1.1 - Clause 2 - Part C do not apply. Please confirm.

2. Please confirm that for welds subject to the provisions of AWS D1.8, Table C-1.1 is the governing reference for the removal of tabs and backing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed that AWS D1.1-Caluse 2-Part C does not apply.

2) For welds subject to the provisions of AWS D1.8, the removal of weld tabs and backing shall be in accordance with the details included in the contract documents. Confirmed that where removal of weld tabs and backing are not specifically detailed on the contract documents, AWS D1.8, Table C-1.1 is the governing references.

T-0807 **Blockout and reinforcement detail on the future bridge decks** **Closed** **10/10/2013** **10/20/2013** **10/16/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please provide a blockout and reinforcement detail for the 48"diameter bridge piers support the TG03 BSE (Balfour installed) temporary bridges on 1st street, Fremont street and Beale street.
Provide specification for positional couplers to be used, and confirm that rebar has appropriate concrete cover with positional coupler use.

This detail will be part of the TG07.2 scope of works.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/14/2013
RESPONSE:
It is our understanding that this RFI is in regards to block-outs for the temporary bridge piers through the TG07.2 Ground Level concrete roadway slabs. These block-outs are considered temporary openings and therefore the responsibility of the Contractor per General Note GR-9 to propose a detail.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0808	**SSS - Material Grade Certification**	**Closed**	**10/10/2013**	**10/20/2013**	**10/18/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to attached CD RFI 046 SK1 to SK5 sketches and confirm all connection material shown on drawing S1-5051 is ASTM A36 material per the material note for plates in SS-2 on drawing S-0007 unless specifically noted on the drawing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

T-0809	**SSS - Shear Plate Connections**	**Closed**	**10/10/2013**	**10/20/2013**	**10/22/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

For the typical shear plate connections per detail 1/S1-5011 see sketches CD RFI 060 SK1 & SK2 for items 1, 2 & 3 noted below.

1. Confirm it is acceptable to locate the bolts 2 3/4" from face of beam web as shown for duplication of shear plate marks.

2. Confirm it is acceptable to cope the beam to match the "k" distance of the supported beam (W24) while maintaining a 1/2" minimum clearance to avoid cutting inside the "k" in lieu of the 1/2" max. shown in detail 1/S1-5011.

3. Confirm the shear plate thickness and weld size at a W16x31 to W24x68 connection as per Note 3 in 1/S1-5011 is 3/8" shear plate and 1/4" weld.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed. It is typically acceptable to provide a distance of 2 3/4" between face of the beam web and the bolt centerline.

2. It is acceptable to typically cope the supported beam by a distance of k - e while maintaining a ½" minimum clearance as noted wherever detail 1/S1-5011 applies. k is the "k" distance of the supported beam and e is the fillet encroachment allowed per Figure 10-3 of the AISC Steel Manual 14th Edition. For the instance highlighted in the RFI, see response to 3.

3. The shear plate connection shown in SK1 and SK2 occurs at 4 locations between GL 12 and 14. W16 beams at these four locations are going to be upsized in a future ASI.

T-0810	**SSS - Transfer Girder Kicker Connection**	**Closed**	**10/10/2013**	**10/20/2013**	**10/11/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

On S1-2305 near grids 24.9/E the kicker angle connection per detail 5/S1-5015 will miss the connecting beams at 4 locations as noted on sketches CD RFI 064 SK1 & SK2. Please supply an alternate connection detail at these

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Provide kickers with 1 to 1.25 slope at the four locations highlighted in the RFI so that the top gusset plates connect to the short W44 beams that span East-West.

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locations.

T-0811 **SSS - Fitted Stiffeners** **Closed** **10/10/2013** **10/20/2013** **10/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Attached sketch

Spec 05 10 00 - 16 N states: "Stiffeners: Fitted stiffeners shall be ground to fit closely against flanges."

1.Please clarify which stiffeners are fitted stiffeners as this terminology does not appear to be noted in the structural drawings.

2. Confirm it is acceptable to provide the shear plate height as d-2tf minus 1/16" for fabrication tolerance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1.) When a stiffener is called out in the drawings as "fitted" stiffener, it shall be ground to fit closely against the flanges as indicated in the specification. In following cases, "fitted" requirement can be disregarded and stiffeners can be constructed using standard AISC fabrication tolerances: a-) When stiffeners are welded to beam/column flanges using CJP welding. b-) In Sheets S1-8001, S1-8002, S1-8003. c-) In Detail 1/S1-5013.

2.) If a stiffener is not called out as "fitted", use of standard AISC fabrication tolerances for construction is acceptable.

T-0812 **SSS - Pipe Column Connections to Cast Nodes** **Closed** **10/10/2013** **10/20/2013** **10/18/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please review attached sketches with details on S1-4020 and cast node details for pipe connections to cast nodes.

1. Work points for 32" diameter basket column to cast node connections have been offset from the theoretical work line as noted on design sheet S1-4020. Verify ends of 32" pipe will need to be bevel cut to match face of cast node geometry.

2. Where necessary bevel cuts are required at each end of the 32" diameter pipe we propose to add a scribe line along the top surface on centerline of the pipe to facilitate

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. As noted on details on Sheet S1-4020, the center line of the pipe is not in line with the center line of the cast node. Since the cast node ears are casted to be perpendicular to the cast node axis, the pipe end need to be bevel cut to match face of the case node geometry.

2. Scribe line if needed shall be laid out and scored into the casting by Skanska as a part of means and methods. The depth and thickness of the scribe line shall be submitted for review. Scribe line if added, shall not affect the appearance of the cast node nor

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matching the cut surface to the cast node face. Please verify a corresponding scribe line will be added to the face of Cast Nodes.

pipe after painting.

T-0813 **SSS - Kick Angle Requirements** **Closed** **10/10/2013** **10/20/2013** **10/21/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to sketch CD RFI #070 SK1. The BU members on Grid 1 are not noted as MF, TR or TPG and it is not clear which kicker brace detail on S1-5015 applies. Please advise which kicker brace detail on S1-5015 is to be applied along Grid 1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Bottom flange bracing is not required at the BU-40x22x1x2 beams along GL 1.

T-0814 **SSS - Missing BU Members in the Bottom Flange Brace Schedule** **Closed** **10/10/2013** **10/20/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per detail 7/S1-5015 please refer to sketch CD RFI # 072 SK1 and supply the information for the missing BU 30x18x1x1.5 & BU 30x22x1.5x2 members in the schedule.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Bottom flanges of Moment Frame (MF) beams are to be braced per 6/S1-5015 where the "H" dimension noted in the detail is less than or equal to 12" or per 7/S1-5015 where the "H" dimension is greater than 12". The BU30 MF beams highlighted in the RFI are to be braced per 6/S1-5015 as "H" < 12" for these beams

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T-0815 **SSS -Missing Kicker Brace Details** **Closed** **10/10/2013** **10/20/2013** **10/21/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

At the Bus level near grid line 12 and at grids 18 & 26 please refer to sketches CD RFI # 073 SK1 to SK3 and supply the appropriate kicker brace detail on S1-5015 to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kicker brace at the locations highlighted in the RFI shall be per Detail 7/S1-5015, similar to the one for BU-40x18x0.75x1.5.

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be used for the noted beams as these beams are not MF beams, Transfer Girders or Tapered Girders.

T-0816 **BGP - Revised Placement Tolerance at Top Mat Reinforcement** **Closed** **10/10/2013** **10/20/2013** **10/22/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2052 and ACI 117.

Please confirm it is acceptable to increase the top mat slab reinforcement placement tolerance from +/-1/2" to +1/2" and -1" as discussed and coordinated with TT field respresentative. This would also change the concrete cover tolerance from -1/2" to +/-1/2".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/18/2013
RESPONSE:
Minimum acceptable concrete cover over top reinforcing stands at 1" per ACI 117 Section 2.2.2 (+1/2 proposed in RFI). Minimum acceptable concrete cover over headed reinforcing stands at ½" per ACI 117 Section 2.2.2.

Maximum acceptable concrete cover may be increased to as much as 3" provided that the distance from the top of reinforcing to the protection slab is no less than 58" (Relaxation of proposed -1" tolerance in RFI to -1.5" with stipulation).

T-0817 **BGP -Compressible material between concrete structure & CDSM wall** **Closed** **10/11/2013** **10/21/2013** **10/23/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

The contractor has raised a concern see letter in exhibit A attached.
Does the design team envisage any possible issues with the CDSM wall if the waterproofing substrate becomes compressed between the permanent structure and the CDSM wall once the level D bracing is removed? The same question applies when the re-bracing is installed against the permanent foundation walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/21/2013
RESPONSE:
We do not envisage any problems with the CDSM wall due to the compressible layer. The performance of the CDSM wall with regards to meeting the specified deflection criteria is the responsibility of the internal bracing designer.

WOJV shall coordinate between the Waterproofing

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and shoring Sub-contractor and provide requested information to BBI.

T-0818 **SSS- Kicker Brace Connection to Underside of Beam Flange** **Closed** **10/10/2013** **10/20/2013** **10/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-2505 at grid lines 20.1/E please refer to sketches CD RFI # 074 SK1 & SK2 and supply a connection detail for the kicker brace to the underside of the beam flange as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Adjust the slope of the kicker brace such that the top gusset plate connects to the bottom flange of the W24x55 beam. For connection detail of kicker brace to underside of beam flange refer to typical gusset plate detail 7/S1-5015. Slope of the kicker brace should not exceed 3:5 (3 horizontal to 5 vertical).

T-0819 **SSS -Gusset Plates at Kicker Angle Connections** **Closed** **10/10/2013** **10/20/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-5015 for the bottom flange connection and the kicker angle connection clarification please refer to sketches CD RFI # 077 SK1 & SK2 for items 1 & 2:

1) Confirm it is acceptable to cut the gusset plate as shown to avoid a pointed corner as the weld will not beeffective in the shaded triangle area.
2) Confirm it is acceptable to cut the gusset plate as shown to avoid a pointed corner as the weld will not be effective in the shaded triangle area.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Changes proposed in the RFI (cutting the gusset plate as shown in CD RFI 077 SK1 and SK2) are acceptable

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T-0820 **SSS - Missing Beam Connection Details** **Closed** **10/10/2013** **10/10/2013** **10/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0821	**BGP - Plumbing Line in Area 4 Stairway**	**Closed**	**10/10/2013**	**10/20/2013**	**10/31/2013**		**Potentially** ☐

At the ground level north of grid line G at grids 2, 3 & 4 please refer to sketches CD RFI # 078 SK1 to SK4 for items 1 to 4 below and supply connection details as noted.

1) Supply a connection detail.
2) Confirm connection is per 12/S1?]5010.
3) Supply a connection detail.
4) Supply a connection detail.

Accept Suggestion: ☐

1. Connection detail at the W30x99 beam will be similar to 2/S1-5011 except that instead of a single shear plate, the connection will have two shear plates between the three transfer girder flange plates. Width of plates to match the larger of the transfer girder flange plate widths. Provide 2 bolts in the top shear plate and 4 bolts in the bottom shear plate. Bolt sizes, spacing between the bolts, bolt edge distances, shear plate thickness and fillet weld between the shear plate and transfer girder flanges/web for the two plates are to be followed per 2/S1-5011. Provide closure plates for the metal deck at the gap between the WT and the transfer girder top flange. Refer to SKS-0288 (attached) for the connection details.

2. Provide connection detail per 2/S1-5011 except that the shear plate spans between top and middle flange plates of the Transfer girder. Refer to SKS-0288 (attached).

3. Connection detail at the W30x99 beam will be similar to that described in 1. For the connection at W40x183, provide 2 bolts in the top shear plate and 7 bolts in the bottom shear plate. Width of plates to match the larger of the transfer girder flange plate widths. Bolt sizes, spacing between the bolts, bolt edge distances, shear plate thickness and fillet weld between the shear plate and transfer girder flanges/web for the two plates are to be followed per 2/S1-5011. When a transfer girder brace is required per 5/S1-5015 at a beam with a shear plate connection, connect the brace angle to the shear plate. Bottom gusset plate per 5/S1-5015 is typically not required in such instances. Refer to SKS-0289 (attached) for the connection details.

4. Provide a double angle connection per detail 9/S1-5010 at the W40x183 beam. Provide 1 bolt less than that required by the connection detail to avoid conflict with the connection on other side of the transfer girder.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:
Reference Drawing P1-2022 between Line C/4-5

Per drawing P1-2022, a 6" sanitary line and vent connection is shown inside the Area 4 stairway. WOJV recognizes the need to flush the sprinkler system and/or needed drain. However, per CBC Code 2007 section 1020.1.2, plumbing line or drains are not listed under Penetrations.

Please confirm the plumbing line detailed inside the Area 4 stairway will comply with the referenced code section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger
10/30/2013
RESPONSE:
There are a number of sprinkler drains that terminate with an indirect waste connection and they are located in the level B2 stairwells outside of the exit path radius. The dedicated indirect waste connections for the sprinkler drain risers are an integral part of the sprinkler system just as much as the sprinkler drain riser itself.

T-0822 **SSS - Angle Connection Details at GL 23** **Closed** **10/11/2013** **10/21/2013** **10/14/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author:

REQUEST:
On S1-2305 around the light column @ grid 23 see attached CD RFI 062 SK1 and confirm details 6 & 7/S1-5015 may be applied at the noted (16) locations. If not, supply a detail reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Confirmed. Braces may be provided per 6 and 7/S1-5015 at the 16 highlighted locations.

T-0822.1 **SSS - Angle Connection Details at GL 23** **Closed** **12/03/2013** **12/13/2013** **12/13/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
RFI T-0822 (attached for reference) confirmed the use of details 6 and 7/S1-5015 at the 16 highlighted areas. Please refer to CD RFI 062.1 SK1 and confirm that the weld dimension "A" indicated on 7/S1-5015 applies to skewed angle connections as indicated on the sketch attached. Otherwise, please provide the required welding information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Confirmed.

T-0823 **SSS - Bolted Beam Connections** **Closed** **10/11/2013** **10/21/2013** **10/14/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per S1-5012 for the typical bolt beam connections please refer to sketches CD RFI # 079 SK1 to SK3 for items 1 to 7:

1) Confirm the noted dimension may be 1 3/4" in details 1 & 2/S1-5012 to match 3/S1-5012.
2) Confirm the noted dimensions are acceptable for details 1, 2 & 3/S1-5012.
3) Supply plate thickness.
4) Supply welding for shear plate to column.
5) Confirm dimensions are acceptable.
6) Confirm dimensions are acceptable.
7) Supply plate thickness.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed. Vertical bolt edge distance 2db can be changed to 1 3/4" in details 1 and 2/S1-5012 if the bolt diameter is not more than 7/8".

2) Confirmed. The noted dimensions are acceptable for details 1, 2 and 3/S1-5012. Note that the distance between the centerline of the bolts and the face of the column is 3".

3) Plate thickness is 3/4" as noted on Superstructure ASI 106 drawings.

4) Welds between shear plate and column are double sided 5/16" fillet welds as noted on ASI 106 drawings.

5) Confirmed. Noted dimensions are acceptable.

6) Confirmed. Noted dimensions are acceptable.

7) Plate thickness is 1" as noted on Superstructure ASI 106 drawings.

T-0824 **SSS - Bottom Flange Connection Plate** **Closed** **10/11/2013** **10/21/2013** **10/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per detail 6/S1-5015 for the bottom flange connection plate please refer to sketches CD RFI # 069 SK1, SK2 & SK3.

1) Access for field welding the web extension plate per 6/S1-5015 is a problem at the noted location as well as other similar locations.

Confirm the web extension plate may be typically omitted when the dimension shown as 1 3/4" is 3" or less.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Access for field welding of the web extension plate per 6/S1-5015 is a problem at the following locations:

1) Location highlighted in SK1 in the RFI

2) At GLs 6/C.3 and 6/F.7

3) At GLs 9.9/C.3 and 9.9/F.7

4) At GLs 20.1/C.3 and 20.1/F.7

5) At W40x149 beams framing into moment frame beams between GL 32.4 and 33.2 (Total 8 brace locations).

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Provide brace detail per sketch SKS-0290 (attached) at locations listed in 1, 3 and 4 above. Braces at locations listed in 2 and 5 are not required.

T-0825 **SSS - W30 Beam to Girder where bf exceeds 22** **Closed** **10/11/2013** **10/21/2013** **10/17/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On S1-2505 along grid line 20.1/E.6 where the W30x108 beam frames into the MF girder please refer to sketches CD RFI # 076 SK1 & SK2 for items 1 & 2 noted below.

1) The noted "MF" beam is a BU-44x24x1.25x2.75. Detail 1/S1-5011 does not apply as "bf" exceeds 22". Please supply a typical connection for a round circle on plans when the "bf" exceeds 22 (work with item 2 on SK2)
2) Please note that if a full depth shear plate is used it will foul the beam extension plate per 6/S1-5015. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Provide double angle connection per 1/S1-5010 at the two W30x108 beams that frame into the Moment Frame beam at GL 20.1. For the four shear plate connections at the W30x108 and W40x149 beams on GL 21, provide connections per 1/S1-5011. There are no other locations where a shear plate connection per 1/S1-5011 is specified and where support beam flange width is greater than 22".

2) See response to 1.

T-0826 **SSS - Oversized Hole Size in Web Stiffeners** **Closed** **10/14/2013** **10/24/2013** **10/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please confirm it is acceptable to oversize the bolt holes in the web stiffeners to the bolt diameter + 3/16". Reference Detail 1 on S1-5019 and CD RFI 055 SK1 for additional information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Use of oversize bolt holes in this drag connection is not acceptable.

T-0826.1 **SSS - Clarification of Oversized Holes in Web Stiffeners** **Closed** **11/11/2013** **11/21/2013** **11/15/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

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Reference the response to W/O RFI # T-0826 (SK 114 & CD 055D), attached for reference.

W/O RFI T-0826 response states that "Use of oversize bolt holes in this drag connection is not acceptable." Confirm that the response above applies only to conditions when the web stiffener plate is the outside plate in a connection and that the 3/16" oversize holes for the web stiffener plates are acceptable in details 1 & 2/S1-5016 when the web stiffener plate is not the outside plate in the connection.

Accept Suggestion: ☐

RESPONSE:
Use of oversize hole is not allowed for drag connections, neither at the shear plates nor at the web stiffener plates, and regardless of whether the web stiffener plate is the inside plate in the connection or not.

T-0827 **BGP - Clarification to Galvanized Steel Plate at Seismic Joint in Area 16** **Closed** **10/14/2013** **10/24/2013** **10/28/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Scott Bunnell

REQUEST:

Please refer to attached drawing detail 7/A1-8881 and 4/S1-3010.

Detail 7/A1-8881 (and other details on A1-8881) call for a 5/8" x 6' galvanized steel plate secured to the mud slab and soldier piles. This plate does not appear on the structural details for the seismic joint in drawing S1-3010.

1. Please explain the functionality and purpose of the galvanized steel plate shown in 7/A1-8881 and 1/A1-8881 in relation to the seismic joint assembly.

2. Please provide revised structural drawings showing all welding and design criteria required to attach and secure the "5/8" THK x 6' wide galv steel plate" to the mud slab and soldier beam, respectively.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/24/2013
RESPONSE:
AAI Response:
1. The 5/8" thk x 6' wide plates were provided at the mat slab (horizontal) and at the shoring wall (vertical) to serve as relatively smooth backing for the seismic joint assembly as the train box moves against the mud slab and shoring wall. It also provides a flat surface for the neoprene gasket seal when pressed against it.
2. The horizontal plates are mechanically anchored to the 4" thk reinforced mud slab with 3/8" expansion anchors (with the shortest minimum embed 2 5/8" or 3" depending on the manufacturer) spaced at 8" min. The vertical plates are either seam/slot welded to the soldier piles or are 2 plates (with total width of 6')-plate panels welded to the solder piles, depending on the field location of installed adjacent soldier piles. Welds ground to a smooth finish.

TT Response:
This plate is not intended to show on the structural drawings.

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T-0828	**SSS - Locations for Scratch Plate for BRBs**	**Closed**	**10/14/2013**	**10/14/2013**	**10/17/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference the sketch attached and verify the proposed scratch plate end locations and surface locations are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The locations of the BRB scratch plates are acceptable with following modification: Move the scratch plate from the BRB in Detail H/S1-4150 to one of the BRBs in Detail F/S1-4150. Mount scratch plate near the top of the brace, on near side.

T-0829	**BSE - Voids Across Top of CDSM Wall on the West side of Zone 1**	**Closed**	**10/15/2013**	**10/25/2013**	**10/21/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Photos: attached

There are a number of voids that run across the top of the CDSM wall on the West side of zone 1 (see attached photos). During prior conversations between W/O and Arup there has been discussion of filling these voids with material. Please provide the material and application desired by the design team to fill these voids.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The voids do not need to be filled at this time.

T-0830	**SSS - Type T, TT, and TTT Base Plate Anchor Rod Location Confirmation**	**Closed**	**10/15/2013**	**10/25/2013**	**10/21/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Detail 7 on S1-5051 provides locations where type TT and type TTT base plate anchor rods will be installed. There are other details throughout the plans that contradict the columns base plate anchor rod locations provided in 7/S1-5051. For example: 7/S1-5051 shows a column at gridline 10.1/G.3 as having a type TTT base plate anchor rod detail; however, 1/S1-3610 shows the column at 10.1 and G.3 as having a type T base plate anchor rod detail.

Please confirm that detail 7/S1-5051 provides the correct base plate anchor rod detail for each of the columns.

Please provide a type T base plate anchor rod detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed that 7/S1-5051 provide correct anchor rods information.

2) Type T anchor rod details are provided in Detail 3 & 5/S1-5051 (see the note stating "TYPE T thread bar anchor shown, for Type TTT threadbar anchor see 4/S1-5051, for TYPE II threadbar anchor see 6/S1-5051).

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T-0831	**BGP - Area 11 Clear Cover to the Vertical Reinforcement on the Foundation Wall**	**Closed**	**10/22/2013**	**11/12/2013**	**10/29/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-609 this RFI shows the areas of foundation wall/embedded column in pour Area 11, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement in this case only pile number 225 on the north elevation has this issue.

RFI T - 783 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 11.

Please confirm that the clear cover between the waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013
RESPONSE:
The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

T-0832	**BGP - Area 12 Clear Cover to the Vertical Reinforcement on the Foundation Wall**	**Closed**	**10/24/2013**	**11/05/2013**	**10/29/2013**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-609 this RFI shows the areas of foundation wall/embedded column in pour Area 12, on the north & south wall elevations which will have greater than 6" of clear cover to the vertical reinforcement for location plan see exhibit - A

Exhibit - B & C depict the amount and location of the foundation walls which the will have greater than 6" of clear cover to the vertical reinforcement in this case only two pile numbers 237 & 238 on the north elevation has this issue.

RFI T - 784 shows the thinning of the wall with the revised reinforcement spacing due to CDSM pile encroachment in Area 12.

Please confirm that the clear cover between the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013
RESPONSE:
The clear cover between the waterproofing system and vertical reinforcement as presented in Exhibit C of this RFI is acceptable.

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waterproofing system and the vertical reinforcement as outlined at these locations is acceptable.

T-0833 **BGP - Embed Clarification at Elevator Rail Support** **Closed** **10/16/2013** **10/26/2013** **10/30/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please confirm the length of the elevator rail support embed dimension is 2'-7", as shown in the attached detail drawing 4/S1-7630..

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/26/2013
RESPONSE:
Inquired length is confirmed.

Note that there is more than one size of HSS, therefore the height of vertical plate may vary.

CMGC shall make all future bidders of trades that may be impacted by detail issues such as this, aware of the work of adjacent trades.

T-0834 **BGP - Structural Steel Embeds in Concourse Slab/Columns** **Closed** **10/17/2013** **10/27/2013** **10/24/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Chris Williams

REQUEST:

Attached is a rebar congestion model of the concourse slab and column C2 at C/24.9. As is apparent, the structural steel shear lug portion of the plate embed is in conflict with the reinforcing steel and will not fit with required rebar spacing. The rebar conflicts with he shear lug and blockout that are present, include but are not limited to:

- Typical MFB Beam at C/24.9 (blue colored bars in model)
- B-68 Beam (yellow colored bars in model)
- Main concourse slab (pink colored bars in model)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 3-D images provided seems to orient the base plate/shear key in the wrong direction. The long face of the shear keys are to be in parallel to the web of the steel column as shown in details on Sheet S1-5051.

Spacing for the slab rebars and the top rebars for the misc. beams (e.g., B71 at Grid C/2, B68 @ Grid C/24.9) shall be adjusted slightly to clear the shear keys.

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- Column C-2 vertical T-Heads (purple colored bars in model)

Please provide a solution that will provide a constructible blockout and embediment of the structural steel plate.

T-0835 **BGP - Vehicle Ramp Beam and Wall Support Embed Clarifications** **Closed** **10/17/2013** **10/27/2013** **10/29/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference attached drawings S1-2251, A1-7401, S1-3411, S1-3203 and S1-3204.

1. Please confirm the beam support angle/plate as shown on D1 of S1-3411 are located where shown on drawing S1-2251 (notation in red). There will be a total of three total embeds.

2. Please confirm the wall support angle/plate (two total embeds) shown on detail D6/S1-3203 and D10/S1-3204 are located where shown on the notated drawing S1-2251 (notation in green).

3. Please provide a drawing that shows the acute and obtuse angles for embeds highlighted on A1-7401.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/29/2013
RESPONE:
1. Confirmed.

2. Confirmed.

3. See attached SKA-2863.

T-0835.1 **BGP - Vehicle Ramp Beam Support Embeds** **Closed** **11/05/2013** **11/15/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference RFI T-0835, RFI T-0453.1 and attached SKA-2863.

RFI Response T-0453.1, stated that in lieu ofbending the L8x8x1-1/8" member, is was acceptable to weld two 1-1/8"

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/17/2013
RESPONSE:
Contractor proposal as presented in the RFI is acceptable. Include in forthcoming shop drawings that

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thick plates together in order to achieve desired obtuse and acute angles.

1. Please confirm that additional embeds per detail 1 S1-3411, not reference in RFI T-0453.1, can be welded to create the specified angles per RFI response T-0853 (this will be an additional2 angles). Please reference attached SKA-2863 for specified angles and locations of embeds in question.

is referenced in RFI T-0881.

(Note that we assume the RFI is intending to reference "T-0835" and not "T-0853".

T-0836 **BGP - Sump Pit Rebar Tail and Trestle Pile @ GL 18.5/E - Area 9** **Closed** **10/17/2013** **10/27/2013** **10/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference: RFI T-0644

Three of the sump pit lower mat #11 tails near grid line 18.5/E are in conflict wit the nearby trestle pile. The bars have been trimmed to clear the trestle pile and provide an LTE of 34" instead of 60" as required per plans.

Typically, a bent bar would be spliced to the interrupted bar as required in SKS-0281 in the response to RFI T-066; however, the trimmed bars have a 70" length which would not beet the 78" LTS requirement. Gerdau propose to leave the 3 ea trimmed bars as-is and not incoporate an additional spliced bent bar. Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/22/2013
RESPONSE:
Provide spliced bent bar as indicated in RFI T-0664 and that RFI's accompanying Sketch SKS0281. Lap length may be reduced to 69". The total length of bent bar extending beyond the intersection with the bottom mat reinforcing shall be 60". The bent bar may be rotated so that the tail clears the layer of mat top reinforcing.

T-0837 **BGP - Structural Details for Elevator Door Sill Plate Angles on Concourse Level** **Closed** **10/17/2013** **10/26/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing A1-2824 through A1-2847.

The architectural drawing note at the elevator door sill

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/7/2013
RESPONSE:
Refer to detail 4/A1-7576. The galvanized steel angle

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plates refer to the structural drawings for details. However, the current structural drawing set do not provide the applicable misc metal angle detail.

Please provide structural detail drawings showing the typical misc metal elevator door sill support angle. Please include mounting detail to concourse slab or topping slab detail, misc. metal details, and all pertinent information to accurately detail the elevator door sill plate angle.

cast on top of the lower concourse structure (which forms the edge of the topping) shall be an L6x4x3/8 (LLH) with ¾¿ x 8¿ long studs at 12¿ OC. Studs shall be 3¿ clear from edge of lower concourse slab. Elevator sill angle to be provided by elevator manufacturer.

T-0837.1 **BGP - Elevator Sill Conflict with Elevator Rail Embed Plate** **Closed** **11/19/2013** **11/29/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

The architectural elevator sill angle/emebed (continous) detail shown in 4/A1-7576 is in conflict with the structural elevator rail support embed drawing in 4/S1-7130.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/3/2013
RESPONSE:
The elevator sill plate support angle is interrupted by the HSS elevator guiderail support. The support angle shall terminate and recommence as follows:
Cope horizontal (6") leg of sill plate support L6x4x3/8 contained in RFI response T-0837 up to 2" to clear vertical PL 5/8 of Detail 4/S1-7630. Remaining L4x4 (approx.) shall extend over the PL 1/2 embed plate to within 2" of the HSS elevator guiderail support. Length of cope shall not exceed HSS depth. A stud shall be placed within 3" of the cope.

T-0838 **BGP - Concourse Slab Opening Dimension Clarification at GL C/13** **Closed** **10/17/2013** **10/26/2013** **10/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing A1-2844 and S1-2204.

The slab opening east of GL 13 and north of GL C shown on drawing A1-2844 appears to be in conflict with the slab

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/24/2013
RESPONSE:
The Slab Opening for future ST 402 is 91-1 ¼" as

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opening shown on drawing S1-2204.

Please confirm the aforementioned slab opening is 26'-3" x 8'-8 3/4".

shown on Sheet A1-2844 issued in ASI 107.

T-0838.1 **BGP - Concourse Slab Opening Dimension Clarification at GL C/13** **Closed** **10/29/2013** **11/08/2013** **11/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

Please refer to the attached drawing A1-2844, S1-2204 and RFI T-0838.

WOJV is in receipt of AAI's response to RFI T-0838, in which the slab opening dimension is referenced in a drawing that has yet to be issued for construction (A1-2844, ASI 107).

Please provide the dimensions for the slab opening east of GL 13 and north of GL C as located on the current contract drawing A1-2844 dated 08/31/2012.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/14/2013
RESPONSE:
See attached SKA-2870 showing dimensions to the slab opening east of GL 13 and north of GL C. Structural beams are aligned at the edges of the opening.

T-0839 **SSS - Bolt Specifications** **Closed** **10/18/2013** **10/28/2013** **10/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

As per the Contract Drawings and Specifications all high strength bolts shall be A325, A490 & A354 BD. All TC bolts shall additionally conform to ASTM F1852 & F2280.

1. We propose to use TC bolts for all connections (shop & field) 1-1/8" diameter or less (unless galvanized). All galvanized bolts to be standard A325.

2. All bolts 1-1/4" to 1-1/2" diameter to be standard A490.

3. All bolts larger than 1-1/2" diameter to be standard A354 BD

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We assume the term "Standard AXXX" used in this RFI refers to high-strength bolts with Hex Heads that will be pre-tensioned using acceptable methods per Specification Section 05 10 00 - 3.2.K (other than TC). If this is not the case, please resubmit the RFI with additional clarification. Responses to individual items in RFI as follows:

1.) As indicated in Specification Section 05 10 00 - 3.2.K.1, it is acceptable to use TC bolts. Bolt specification shall be as indicated in the construction drawings. Standard A325 is acceptable for galvanized

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Please confirm this is acceptable.

bolts.

2.) Standard A490 is acceptable in this diameter range.

3.) Standard A354BD is acceptable in this diameter range.

T-0840 **SSS - Means & Methods - Erection Devices** **Closed** **10/21/2013** **10/31/2013** **10/23/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

REQUEST:

As per OSHA Standards Sub Part R Steel Erection 1926.756 (C)(1) When two structural members are sharing common connection holes, at least one bolt shall remain connected to the first member unless a shop or field attached seat or equivalent connection device is supplied with the member to prevent displacement. We propose the Means & Methods depicted in the attached sketch SK-1A to meet these OSHA requirements.
Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per 01 10 40 1.6 C 2 - TJPA will not reply and will reject the RFI: "Questions relating to construction means, methods, techniques, sequences, procedures or safety precautions. (These are the Contractor's responsibilities exclusively.)"

T-0841 **SSS - Transfer Girder Splice Conflict with Clip Angle Connection** **Closed** **10/18/2013** **10/28/2013** **10/24/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

As noted on sketches CD RFI 075 SK1 through SK8, there are several instances where the clip angle at the beam to transfer girder connection is in conflict with the transfer girder web splice. This condition occurs at TR7, TR8, TR11, TR19.1, TR19.9, TR21, and TR24.

Please reference the sketches attached and confirm the modified transfer girder web splice locations are acceptable to avoid conflict with the beam clip angle connection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Transfer girder splice locations may be moved as shown in sketches SK1 through SK7 in this RFI.

There is no splice specified on the structural drawings (D/S1-4305) at TR24 between gridlines E.2 and D.8. Additional splice shown on SK8 is not acceptable.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0842	**SSS - Full Height Columns**	**Closed**	**10/18/2013**	**10/28/2013**	**10/24/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to the attached drawing, S1-4104. The columns shown in the transverse frame elevation that extend from the ground level to the roof level typically have a field splice located 4' above the bus deck slab. Please confirm that this field splice may be eliminated and that it is acceptable to provide full height columns.

The detail is shown at GL 7 & GL 8. Other locations are similar.

Note that a shop splice may be required due to limitations in mill rolling lengths.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At moment frames where the column sections above and below the splice point are identical, it is acceptable to eliminate the column field splice.

T-0842.1	**SSS - Moment Frame Column Splice**	**Open**	**01/27/2014**	**02/06/2014**		**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

In reference to W/O RFI T-0842, in which permission was given to eliminate field splices in the built-up columns, please see the following:

At certain column locations (see S1-4102 at GL4, for example) the thickness of the flange is constant throughout the height of the column. The fabricator will seek to provide single piece flanges when material availability permits. In instances where the availability of certain plate sizes does not permit the fabricator to provide a single piece / full height flange plate, a shop splice will need to be introduced.

Please identify any locations or areas along the height of the column flange that a shop splice is not permissible so that these limitations may be considered while finalizing our shop details and plate purchases.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0843	**SSS - PJP Welds at Roof Node to Brace Beam**	**Closed**	**10/18/2013**	**10/28/2013**	**10/25/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference is made to sheet S1-4205, Detail 2 "Brace Detail" which specifies a 1 ¾" effective weld from roof node to brace beam. Sheet S1-5131, Detail 1, Side View F specifies a bevel of 2 3/8" x 45 degrees for the weld joint area in question.

Sheet S-0007, General Note SC-4 states that weld sizes shown are considered effective weld sizes. Prequalified weld joint BTC-P4-GF (attached for reference) states that the effective weld size shall equal the bevel size for flat and horizontal weld positions.

These welds are intended to be performed in the horizontal or flat position. Please confirm that a bevel size of 1 ¾" to equal the specified weld size of 1 ¾" is acceptable and conforms to the requirements of note SC-4 and AWS 2010 D1.1 Detail BTC-P4-GF attached.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The weld size shown in Detail 2/S1-4205 is the effective weld size required for this joint. It is acceptable to revise the bevel size shown in 1/S1-5131 according to the effective weld size as required by the welding procedure.

T-0844	SSS - PJP Weld at Roof Node to EBF Link Beam	Closed	10/18/2013	10/28/2013	10/24/2013	Potentially ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference is made to sheet S1-4205, Detail 1 "EBF Link Beam Detail" which specifies a 2 ¼" effective weld from roof node to EBF Link beam. Sheet S1-5131, Detail 2, Side View F specifies a bevel of 2 3/8" x 45 degrees for the weld joint area in question.

Sheet S-0007, General Note SC-4 states that weld sizes shown are considered effective weld sizes. Prequalified weld joint BTC-P4-GF (attached for reference) states that the effective weld size shall equal the bevel size for flat and horizontal weld positions.

These welds are intended to be performed in the horizontal or flat position. Please confirm that a bevel size of 2 ¼" to equal the specified weld size of 2 ¼" is acceptable and conforms to the requirements of note SC-4 and AWS 2010 D1.1 Detail BTC-P4-GF attached.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The weld size shown in Detail 1/S1-4205 is the effective weld size required for this joint. It is acceptable to revise the bevel size shown in 2/S1-5131 according to the effective weld size as required by the welding procedure.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0845	**SSS - Welding Type 61 Roof Nodes to Roof Beams**	**Closed**	**10/21/2013**	**10/31/2013**	**11/05/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-4205, S1-5132, S-0007

Reference is made to sheet S1-5132, Detail 1, Side View D which specifies a bevel of 1" x 45 degrees for the weld joint for Type 61 roof nodes to the roof beam.

Sheet S-0007, General Note SC-4 states that weld sizes shown are considered effective weld sizes. Prequalified weld joint BTC-P4-GF (attached for reference) states that the effective weld size shall equal the bevel size for flat and horizontal weld positions.

These welds are intended to be performed in the horizontal or flat position. Based on the information provided above, please provide the required effective weld size at the area in question and confirm the bevel size is to match the specified weld size.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Effective weld size required for this joint is 1". According to the welding procedure indicated in this RFI, corresponding bevel size at this joint would also be 1".

T-0846	**SSS - Grade 60 A615 Threaded Anchor Rod**	**Closed**	**10/21/2013**	**10/31/2013**	**10/23/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

With reference to the Grade 60 A615 Type T threaded anchor rod specified on detail 7/S1¿]5051 (attached), we request to substitute this material for the higher Grade 75 A615 anchor rod at no additional cost.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that substituting Grade 60 Type T thread bar anchors with Grade 75 A615 anchor rods as proposed is acceptable.

T-0847	**SSS - Weld Process for Roof Nodes at Roof Beams**	**Closed**	**10/21/2013**	**10/31/2013**	**10/28/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please reference sheet S1-5131 Detail 1 Section F, Detail 2 Section F, and sheet S1-5132 Section D. OIW is proposing to perform the CJP welds from P3 to P4 using a "Narrow Gap Improved Electroslag Weld (NGI ESW)"

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Using "Narrow Gap Improved Electroslag Weld" (NGI ESW) for the proposed location is acceptable pending on prior approval of the WPS and Welding procedure Qualification. WPS shall be prepared in accordance

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process. AWS D1.8 Section 6.2.1 allows the use of alternate weld processes contingent upon approval by the Engineer.

Attached is a detailed narrative and supporting data for this welding process including the following:
-Process Details, General Parameters, and Practices from ARCMATIC (OIW welding consultant)
-Sample Welding Procedure Data Sheets (WPS) including MTR¡¦s and destructive testing

Upon conceptual approval of this process, applicable and job specific PQR/WPS data will be provided for Engineer review.

Please confirm that NGI ESW welding process is acceptable in this application.

with AWS D1.5.

T-0847.1 **SSS - Weld Process for Roof Nodes at Roof Beams** **Closed** **11/25/2013** **12/05/2013** **11/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The response to RFI T-0847 states that "WPS shall be prepared in accordance with AWS D1.5," while the specifications require that welds be prepped in accordance with AWS D1.1 and D1.8. Please verify that the reference to AWS D1.5 is the intended Standard for the proposed weld process, as Skanska intends to prepare PQR/WPS in accordance with D1.1 and D1.8.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The specification requires that weld to be prepped in accordance with AWS D1.1 and D1.8. However, since the weld procedure proposed by Skanska (narrow gap improved electroslag weld) is not covered in AWS D1.1 and D1.8, but covered in AWS D1.5, the WPS shall be prepared in accordance with AWS D1.5

T-0848 **BGP - Dewatering Well Pipe Alternate Route** **Closed** **10/21/2013** **10/31/2013** **10/31/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Scott Bunnell

REQUEST:

Please refer to attached excerpt details 6/A1-8711 and 1/S1-3201.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/31/2013
RESPONSE:

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SCCI is requesting to re-route all 2" dewatering well lines as proposed in the attached drawings and depicted in the attached photo. The SCCI proposed re-route is to eliminate any potential conflicts with future work (bracing removal, wall waterproofing, rebar, and form/pour/strip). Upon completion of the use of the dewatering system, the line will be cut below the sleeve, capped and grouted in with the trestle block-out pour back. The line will be poured in place with the future mat and concourse slabs and all 3 wall lifts. The line will also be capped at the top of the final wall lift.

Please confirm the proposed dewatering well re-route as shown in the attached file is acceptable.

Routing the temporary dewatering system within the permanent foundation wall will not be permitted.

T-0849 **BGP - Mat Slab Layer 3 Lap Splice Relocation in Area 11 thru 16** **Closed** **10/21/2013** **10/31/2013** **10/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2052.

Due to limited access between the waterproofing and access trestle, Gerdau proposes to shorten the mat slab typical layer three (North-South) 67'-0" bars at Areas 11 through 16. This requires the lap splice location to be moved from the center of column line, as specified on Note 1 of the Mat Top Bar Notes in S1-2052, to the location shown in the attached Gerdau sketch SK-99.

Please confirm the revised lap splice detail shown in Gerdau sketch SK-99 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
10/22/2013
RESPONSE:
It is acceptable to move the reinforcing splice from the center of the column line as indicated in the RFI.

T-0850 **BGP - Request for 14 day Concrete Compressive Strength test on future mat slab ı** **Closed** **10/22/2013** **11/01/2013** **10/25/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per discussion with TT field Engineer and TJPA

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger

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representatives, WOJV is asking for all future mat slab pours that one of the two concrete test cylinders allotted for the 28 day compressive strength test could be tested at 14 days instead, This information will be used to assess the concrete strength for the level D bracing removal.

Please confirm if this would be acceptable.

10/24/2013
RESPONSE:
At 14 days it is acceptable to test (1) of the (2) concrete test cylinders allotted for 28 day compressive strength testing by the Specifications.

All future mat slab pours will have a sample set for testing consisting of (1) cylinder for 7, 14, and 28 days followed by (3) cylinders for 56 days. (1) additional cylinder per set shall be retained in reserve for later testing if required. The total number of cylinders taken per sample set shall remain at (7).

T-0852 **SSS - Weld Returns at EBF Link Beams** **Closed** **10/24/2013** **11/03/2013** **10/25/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Detail 3 on sheet S1-4205 indicates the weld requirements from the underside of the EBF link beam (28" W) to the roof node (24" W). Detail 3 requires a 3 ½" reinforcing weld to be returned (boxing) 6" at each interior corner of the welded roof node. The distance from the roof node to the edge of the girder flange is only 2" on each side based on the dimensions noted above (reference drawings attached).

Please confirm it is acceptable for the returns running longitudinal to the direction of the EBF Beam to be made as 1 ½" reinforcing fillets, while the weld running transverse to the girder flange remain at 3 ½" as specified. Reference the attached detail showing this condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to use 1-1/2 inch reinforcing fillets at the 6 inch returns provided that welding pass is continuous from the 3-1/2 inch thick region into the 6 inch returns.

T-0853 **SSS - Transfer Girder Field Splice** **Closed** **10/24/2013** **11/03/2013** **11/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In order to facilitate self-supporting erection of the transfer girders during temporary conditions prior to the completion of the field welded splice joints, please confirm it is acceptable to utilize a temporary connection plate that will bolt the two transfer girders together while the weld takes place, as shown on the attached sketches GS-1.0 and GS-2.0. The temporary connection plate will be removed and open holes will be permanently filled with A325 bolts.

Acceptable for the bolt diameter (1-1/8") and spacing (6") shown in sketches GS-1.0 and GS-2.0.

T-0854 **SSS - Type 4 Drag Connection (Y)** **Closed** **10/25/2013** **11/04/2013** **10/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

For Type 4 Drag connection (Y) per detail 1/S1-5019 please refer to sketches CD RFI # 082 SK1 to SK3 for items 1 & 2 noted below. Note sample location is on S1-2402 near grids 2/C.3 shown on SK2.

1) See SK2 & SK3 and confirm this 18" applies at all locations noted as "Y" on plans as this will place the bolts exceedingly outside the supporting beam profile.
2) Please clarify which plan drawings this note applies to.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1a) At Ground Level: Provide b = 18" per schedule in 1/S1-5019 for all Type 4-(Y) drag connections.

2b) At Second Level: There are 14 locations between GL 2 and GL 3 where Type 4-(Y) drag connections per Detail 1/S1-5019 are to be provided. At 8 of these 14 locations the supporting girder is a W30x99. At these 8 locations, provide b such that the beam end is 1" outside of the W30x99 flange as indicated in SK3 of the RFI. Provide b = 2" at the remaining 6 locations.

2) Note applies to Ground Level plans.

T-0855 **SSS - Double Angled Connection** **Closed** **10/25/2013** **11/04/2013** **10/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

For the double angle connection at the Transfer girders per detail 12/S1-5010 please refer to sketch CD RFI 085 SK1 for the following question.

Based on the 3" bolt location from the face of girder web, confirm it is acceptable to use a 1" gap between the girder

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. It is acceptable to use 1) 1" gap between the face of the girder web and end of the beam and 2) 2" distance between the bolt centerline and the beam end as shown in SK1.

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web and the end of the beam with a 2" end distance on the beam.

T-0856 **SSS - Skewed Beam Connections** **Closed** **10/25/2013** **11/04/2013** **11/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

For the skewed beam connections up to 15 degrees per detail 7/S1-5011 see sketch CD RFI 087 SK1 for items 1 to 3 noted below.

1) Confirm it is acceptable to typically locate the bolts 2 3/4" as shown to minimize the number of shear plate marks.

2) Confirm it is acceptable to cut the end of the skewed beams square and clip the flange as shown.

3) Confirm it is acceptable to cut the shear plates square as shown and apply the welds per schedule in detail 7/S1-5011.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.

2) Acceptable.

3) Acceptable provided that weld sizes in Detail 7/S1-5011 are adjusted to account for the root opening introduced by the square cut.

T-0857 **SSS- Gusset Plate Fouling W24 Beam** **Closed** **10/25/2013** **11/04/2013** **10/29/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

1). On S1-2602 to S1-2607 along the north & south perimeter lines the gusset plates required for the MC10x41.1 Link braces per detail 5/S1-4205 are fouling the bottom of the revised beam size W24x55 beam flanges as noted on sketches CD RFI 089 SK1 & SK2. Please verify the bottom of the W24 beam can be coped to clear the gusset plate as an alternate solution. Please note the bottom of the beam flange will be partially coped to clear the MC10 channels per the response to Webcor RFI # T-0763 (SK RFI # 032).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) It is acceptable to cope the bottom flange of the W24 beam as shown in SK-2 to clear the gusset plate (stiffener) and the double channel.

2) The 8 3/8 inch to 12 inch bevel on the gusset plate (stiffener) as shown in SK-1 is acceptable.

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2). On sketch SK1 to establish the gusset plate shape please verify the 8 3/8 to 12 bevel (scaled) noted on the gusset plate.

T-0858 **SSS - Framing HSS Post & Bracing** **Closed** **10/25/2013** **11/04/2013** **11/13/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Drawings: S1-2303

Please clarify the details for the HSS indicated on SK1 (member sizes, connections etc¿) as they are not defined on the framing plans or elsewhere on the contract drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The inquired HSS posts (qty=2) and the bracing (qty=2) are not required.

T-0858.1 **SSS - Framing HSS Post & Bracing** **Open** **12/12/2013** **12/22/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Following response to W/O RFI T-0858 (SK RFI 136) confirming the HSS posts are not required, we assume the underlying W12x14 beams are not required either. See attached SK1 and SK2. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

T-0859 **SSS - Elevator Framing** **Closed** **10/25/2013** **11/04/2013** **10/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

On details 2, 3 & 4/S1-7108 and section A/S1-7136 per ASI 0106 please refer to sketches CD RFI 106 SK1 & SK2 and clarify the discrepancy in framing that is shown on the referenced drawings. Note the elevator vertical was removed on ASI 0106 but a similar vertical is shown on

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section A/S1-7136 does not show the highlighted vertical HSS sections because they are beyond the extent of the section cut. Section C/S1-7136 shows the vertical HSS because the section is directly cut through the HSS member in S1-7108 partial plans.

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section C/S1-7136.

The primary purpose of the section cuts in S1-7136 is to show elevator rail support framing elevations. The vertical HSS members highlighted in the RFI are not part of the elevator rail support framing, they support the W-5 system.

T-0859.1 **SSS - Elevator Framing** **Closed** **12/19/2013** **12/29/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

In attached drawings S1-7108, S1-7136 and S1-7137, we have highlighted structural members we consider are part of TG07.1R scope around elevators PE502 and PE503. Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

All structural steel shown in your contract drawings are included in your scope. This is including, but not limited to, all the highlighted members noted in this RFI. The beams marked "NIC" are not excluded from your contract.

T-0860 **BGP - Area 3 Drill and Epoxy Walls** **Closed** **10/25/2013** **11/04/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Contract Dwg. A1-2122 to A1-2123, and attached sketch

Rebar dowels were installed for future partition walls at gridlines A-F/1-6 during Area 3 mat slab pour on September 7, 2013. Due to conflicts with equipment access for the removal of Level C and D shoring struts and walers, selected rebar areas as shown on the attached drawing will need to be cut at and removed. Any additional walls that are found to be blocking access once operations have begun will be analyzed on an as needed basis. Please confirm it is acceptable to cut rebar dowels in the partition walls as shown on the attached sketch and on an as needed basis, with exception to columns and wall pilasters, then return to drill and bond after bracing procedures are complete. Scanning will be included.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/6/2013
RESPONSE:
It is not acceptable to cut the inquired (interior partition & water tank) wall dowels and re-instate them with drill and epoxy method.

Contractor may cut the inquired wall dowels and reinstate the bars with Type 2 couplers. Note that this is limited to the walls inquired in this RFI. Contractor SHALL coordinate with the work of other packages per General Note GR-3 and GR-22 on S-0005.

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0861	**BGP - Interior Wall Thickness Change Clarification in Area 8 & 11**	**Closed**	**10/28/2013**	**11/07/2013**	**11/06/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2054, S1-2055 and attached excerpt drawings from submittal package T0600-0103.

Per the submittal review notes found on drawing sheet S108.2 and S111.1 from submittal package TG0600-0103, the train platform future interior wall thicknesses have been increased from 10" to 1-0" and 1'-2" to 1'-4", respectively. In addition to the revised wall thicknesses, the following noted was included: "For 1'-4" walls use same coupler reinf as 14" walls. Coordinate with RFI T-0587." The note does not include 12" walls which were previously 10".

Please confirm the now 12" wall is to use the same coupler reinforcing as the 10" walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/6/2013
RESPONSE:
Bars for 12" thick walls are per contract detail 5/S1-3205.

T-0861.1	**BGP - GL 15.4/E Partition Wall Formsavers in Area 8**	**Closed**	**11/07/2013**	**11/17/2013**	**11/13/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-2054, TG0600-103 and RFI T-0861.

The response to RFI T-0861 confirms that the train platform future interior wall near GL 15.4/E which was changed from 10" thick to 12" thick requires the bars to be #6 @ 8" O.C. E.F. per detail 5/S1- 3205; however, the # 6 epoxy coated formsavers are not available for the Area 8 pour.

Please confirm it is acceptable to use # 5 @ 8" O.C. E.F. in lieu of the # 6 @ 8" O.C. E. F. in Area 8 as shown in 5/S1-3205.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/12/2013
RESPONSE:
Contractor-proposed use of #5 bar couplers/dowels is acceptable for the scope of this RFI only.

T-0862	**SSS -Full Height Stiffener Detail Clarifications**	**Closed**	**10/28/2013**	**10/28/2013**	**11/05/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Please reference detail 1/S1-5013 regarding the full height fitted stiffener detail and confirm the following:

1) Confirm it is acceptable to provide a 2" end distance typically at beams with 7/8" dia. bolts in lieu of the 1 ¾" end distance noted by the "2db" dimension.

2) Confirm the stiffener width is to equal the beam "a" dimension, defined as [bf - tw]/2, thus the noted dimension should read "2db min."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1.) Acceptable.

2.) Confirmed.

T-0863 **SSS - Double Angled Connections at TPG1 & TPG3** **Closed** **10/28/2013** **11/07/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

For the double angle beam connections per detail 1/S1-5010 into the TPG1 & TPG3 roof girders on detail 1/S1-4200 are problematic due to the thick flanges. See sketches CD RFI 091 SK1 & SK2 for items 1 & 2 below for proposed modified connection.

1) Confirm it is acceptable to reduce the end distance on the connection angles to 1 1/4" per A.I.S.C.13th Edition Table J3.4 in order to fit the connection angles inside the beams at the TPG1 & TPG3 girders.

2) Confirm it is acceptable to cut the beam flanges flush as shown when the connection angles encroach into the beam "k" area beyond A.I.S.C. allowable limits.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For connections to TPG1:

1)
a) W14x22: Provide one less bolt than that required by 1/S1-5010. All other connection parameters including edge distance on the connection angles shall be per 1/S1-5010.
b) For all other beam sizes noted on SK1, our response is "Acceptable".

2)
a) W14x22: Cutting the beam bottom flange is not required with the reduction in number of bolts per (see 1a).
b) W24x68, W27x84, W30x90, W33x118, W36x135, W40x297: The encroachment of the angle into the "k" region is less than the maximum allowed per AISC 360-05, Figure 10-3. Cutting the bottom flange flush as shown in the RFI is not required and not acceptable.
c) W40x149, W40x183, W40x199: Acceptable.

For connections to TPG3:

1)
a) W14x22: Provide one less bolt than that required

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by 1/S1-5010. All other connection parameters including edge distance on the connection angles shall be per 1/S1-5010.
b) W24x68: Acceptable.
c) W27x84: There is no W27x84 framing into a TPG3.
d) W40x392: The connection is per detail 8/S1-5032 as noted on Sheet S1-2604 near GL 14/D. In addition, gravity moment connection is shown at the ends of these beams where they connect TPG3. Therefore, flanges of the W40X392s are to be welded to TPG3 per detail 4D/S1-5010.

2)
a) W14x22: Cutting the beam bottom flange is not required with the reduction in number of bolts (see 1a).
b) W24x68: The encroachment of the angle into the "k" region is less than the maximum allowed per AISC 360-05, Figure 10-3. Cutting the bottom flange flush as shown in the RFI is not required and not acceptable.
c) W27x84: See 1c.
d) W40x392: See 1d.

T-0864 **SSS - Beam to Column Connection at Roof Level** **Closed** **10/28/2013** **11/07/2013** **11/04/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Reference sheet S1-2606 for the BU beam to column connection at grids 31/D.4 and 31/E.6. Please confirm it is acceptable to reduce the "Lev" dimension indicated on 3/S1-5011 from 5" to 2 ¾" in order to clear the BU flange to web weld as indicated in CD RFI 092 SK1 & SK2.

If this is not acceptable, please provide an alternate detail for this condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Provide 10 bolt rows ("M" = 10) and vertical bolt edge distance, Lev = 4" for connections at all BU56 beams where 3/S1-5011 is applicable.

T-0865 **SSS - Clarifications for Kicker Brace at Ground Level** **Closed** **10/28/2013** **11/07/2013** **11/07/2013** **Potentially** ☐

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From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please refer to detail 6/S1-5022 and verify the kicker brace requirements at ground level as noted on CD RFI 093 SK1 to SK3 and in the items below:

1) Confirm the alternate bracing connection proposed in CD RFI 093 SK1 is acceptable.
2) Supply the weld size and length for brace angles to ½¿ plate.
3) Confirm the work point location indicated is acceptable (intended to match S1-5015 details).
4) Confirm the reference to S1-2304 should be added to the referenced detail and the reference to S1-2307 should be deleted.
5) Confirm detail 6/S1-5022 applies only to grid lines 16.9, 19.1, 24.9 & 27.1 on the Ground Level as referenced on plans.
6) Confirm detail 6/S1-5022 is typical for all braces along grid line 16.9, similar to grid line 19.1.
7) Confirm detail 6/S1-5022 is typical for all braces along grid line 27.1, similar to grid line 19.1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Locate the top gusset plate such that the centerline of kicker angle divides the gusset plate into a 1:3 ratio (3":9") at the top of the plate.

2) Provide a weld size of 5/16" with a minimum length of 4" on each side of the kicker angles.

3) Confirmed.

4) Correct references are S1-2304 and S1-2306 (updated in ASI 106 drawings).

5) Detail 6/S1-5022 is applicable at Gridlines 16.9 and 27.1 at Ground Level. Detail 9/S1-5022 is applicable at Gridlines 19.1 and 24.9.

6) Refer to SKS-0297 (attached) that shows applicable bracing type along GL 16.9 transfer girder. As indicated in the sketch, the bracing along GL16.9 is either transfer girder brace per 5/S1-5015 or kicker brace per 6/S1-5022. Same sketch can be used to identify the bracing type along 19.1 transfer girder by replacing 6/S1-5022 with 9/S1-5022.

7) Refer to SKS-0298 (attached) that shows applicable bracing type along GL 24.9 and GL 27.1 transfer girders. As indicated in the sketch, the bracing along GL 27.1 is either transfer girder brace per 5/S1-5015 or kicker brace per 6/S1-5022. Similarly, the bracing along GL 24.9 is either transfer girder brace per 5/S1-5015 or kicker brace per 9/S1-5022.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0866	**SSS - Bending Radius at Skewed Beam Connections**	**Closed**	**10/28/2013**	**11/07/2013**	**11/07/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Refer to details 7 & 8/S1-5010 regarding bending radius requirements for skewed beam connections. The radius indicated in CD RFI 095 SK2 is per A.I.S.C. (2.5t for A572 GR50 material). Please confirm it is acceptable to proceed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The minimum inside bending radius for a A572 GR 50 plate up to t = 1" is 1.5t per AISC 360-10 Table 10-13, if the bend line is perpendicular to final direction of rolling. These values need to be increased 50% if the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

per this criteria.

bend lines are parallel to the final direction of rolling. 2.5t inside bending radius proposed by the contractor is acceptable for the condition presented in SK2, where t = 1/2". In general, it is acceptable to proceed with the minimum bending radii specified in AISC 360-10 Table 10-13.

T-0867 **SSS - W24 Skewed Beam Connections at Grid 6.C.3** **Closed** **10/28/2013** **11/07/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Refer to drawing S1-2303 (CD RFI 096 SK1) indicating the portion of the W24x68 running between GL C.3 and GL 6. CD RFI 096 SK2 shows the tight design requirements for this beam run connecting to TR6. Please advise if this portion of the W24x68 beam can be eliminated due to the tight design requirements. If eliminating this portion of the beam is not acceptable, please provide an alternate connection detail to TR6, as detail 8/S1-5010 will not work at this location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The portion of the W24x68 beam indicated in the RFI can be eliminated.

T-0868 **SSS - Framing Clarification for W21 Beams at Ground Level** **Closed** **10/28/2013** **11/07/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Refer to the areas indicated on S1-2303 between grids 10.1 & 11 and D & F (CD RFI 097 SK1). Please confirm the noted W21x50 beams are at top of steel elevation 19'-1 5/8" and the BU-WT's are not required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The noted W21x50 beams support the depressed escalator pit slab (Slab S4). T/Slab for Slab S4 is 17.44' as indicated in Sheet S1-2303 and T/Steel for these two beams is 6 1/4" below the T/Slab for S4 as indicated in Sheet Note 2 on S1-2302. Therefore, these two beams support slabs with different elevations and BU-WTs are required.

T-0868.1 **SSS - Framing Clarification for W21 Beams at Ground Level** **Closed** **11/25/2013** **12/05/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to W/O RFI T-0868 (SK RFI 135), the TOS for the W21 should be at 16'-11" and the BU-WTs are required to support the slab at 19'-9 1/8". Based on this response, please confirm the following:

1) The difference between the TOS elevations per the response to SK RFI 135 requires a BU-WT with a total height of 2'-2 5/8", exceeding the maximum height dimension indicated on 5/S1-5002. Please confirm it is acceptable to proceed with detail 5/S1-5002 and the required BU-WT height of 2'-2 5/8" at this location.

2) Please confirm it is acceptable to stop the BU-WTs 1" clear from the edge of the transfer girder flange to allow for erection clearance or advise if the BU-WTs are required to extend to the face of the transfer girder web for deck support. (Reference CD RFI 097.1 SK1)

3) The W21 connection to the transfer girder at grid line 11 fouls the bottom flange of the girder and cap plate of the train box columns as indicated on CD RFI 097.1 SK1. Please provide an alternate connection detail at this location.

4) As indicated on CD RFI 097.1 SK2, there is no support down for the escalator slab perpendicular to the W21 near the edge of the knock-out slab and the W21 supporting the S4 escalator slab. Please advise if deck support is required at this location and, if so, please provide details as required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) It is acceptable to stop the BU-WTs 1" clear from the edge of the transfer girder flange.
3) Cope the top of the W21 beam and provide a double angle connection per 1/S1-7604 with 3 bolts. The connection plates shown in 1/S1-7604 are to be welded to bottom of the trainbox column cap plate. In addition, provide web stiffener plates on each side of the beam web at the coped section per 12/S1-5010. Extend the stiffener plate beyond the coped section a distance equal to the depth of the cope.
4) There is no deck at the highlighted location. The pit slab edge is the same as the knock-out slab edge only it is lower. Refer to detail 4/A1-7550 that shows the slab and escalator enclosure assembly at this location. Note that detail 6/S-7660 is called out on 1/S1-7302 (partial plan of this location). Detail 6/S-7660 applies at the north and east edges of the E305 escalator pit but not at the knock-out slab edge. Similarly detail 6/S-7660 applies at the south and east edges of the E304 escalator pit but not at the knock-out slab edge.

T-0869	SSS - Coping Brace Beam Bottom Flange	Closed	10/29/2013	11/08/2013	11/11/2013	Potentially ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Per details 1&2/S1-5016 refer to sketch CD RFI 056.1 SK1 and confirm it is acceptable to cope the beam as shown to be able to erect the beam with the double shear plates permenantly shop welded.

The gap between the shear plates will be the beam web

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to cope the beams in details 1&2/S1-5016 as indicated in SK1 of the RFI, except that cope the bottom flange only (flush with the beam web) and cope shall be 1" max beyond the shop welded shear plates. In these details, contractor proposed gap between the two shear plates (beam web thickness +

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

thickness, the doubler plate(s) + 1/16" ~ confirm.

doubler plates + 1/16") is acceptable.

T-0870 **SSS - Skewed Beam Connections** **Closed** **10/30/2013** **10/30/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

For skewed beam connections per detail 8/S1-5011 please verify the skewed beams may be cut square with the flange clipped as shown on sketch CD RFI 088 SK1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Acceptable.

T-0871 **SSS - Type 4 Drag Connection Stiffener Clarification** **Closed** **10/30/2013** **11/09/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing S1-2303 and CD RFI 115 SK1 highlighting the W40x149 beam connection along grid line F, between grid lines 9.9 and 10.1. Per detail 1/S1-5019, the web stiffener plate is to be 31" long at each end. Due to the length of this beam, the web stiffeners will foul each other. This same condition occurs on S1-2303 along grid line D between 9.9 and 10.1.

Please confirm it is acceptable to supply one continuous web stiffener plate at the two locations identified as indicated in CD RFI 115 SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Acceptable

T-0872 **SSS - Drag Connection Clarification for Kicker Brace** **Closed** **10/30/2013** **11/09/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing S1-2303 and CD RFI 116 SK1 indicating the W40 beam connection to TR11 at Grid F.11. This detail requires a full height shear plate per 1/S1-5019

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1-) It is acceptable to connect the kicker brace to the 1-1/2" thick full depth shear plate at the location highlighted in the RFI and at other similar instances.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

and bracing per 5/S1-5015. (Reference CD RFI 116 SK2). This same condition occurs on S1-2303 along grid D.11.

Please confirm it is acceptable to connect the required kicker brace to the 1 ½" full depth shear plate and increase the gusset plate below the beam to 1 ½" thick. Otherwise, please provide an acceptable detail for this condition.

Length of the fillet weld between the kicker and the shear plate shall be 7" min each side as indicated in detail 5/S1-5015.

2-) It is acceptable to increase the thickness of the gusset plate at the top of the kicker to 1-1/2".

T-0873 **BGP - Spandrel Beam Modifications in Area 8** **Closed** **10/30/2013** **10/30/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 8 for location plan see exhibit - A
Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north and south elevations due to the revised reinforcement width of the foundation wall due to encroachment of the CDSM beams as well as typical cross sections of the revised spandrel beams.
RFI T - 724 shows the extent of the modification to the foundation wall on the north and south elevations of Area 8.

Please confirm that this modification as outlined at these locations is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/6/2013
RESPONSE:
Contractor proposed modifications to the Lower Concourse spandrel beams within Area 8 are acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from the spacing in the construction drawings to the modified spacing at the encroached wall sections.

T-0874 **BGP - Spandrel Beam Modifications in Area 9** **Closed** **10/31/2013** **11/10/2013** **11/12/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 8 for location plan see exhibit - A

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/11/2013
RESPONSE:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north and south elevations due to the revised reinforcement width of the foundation wall due to encroachment of the CDSM beams as well as typical cross sections of the revised spandrel beams.
RFI T - 742 shows the extent of the modification to the foundation wall on the north and south elevations of Area 9.

Please confirm that this modification as outlined at these locations is acceptable.

Contractor proposed modifications to the Lower Concourse spandrel beams within Area 9 are acceptable. Proper lap splices shall be provided where the beam rebar is transitioned from the spacing in the construction drawings to the modified spacing at the encroached wall sections. Note that Area 9 foundation wall thinning shown in RFI T-0874 (2-3/8") and RFI T-0742 (2") are not consistent. Contractor to reconcile the discrepancy and prepare/update shop drawings accordingly.

T-0875 **BGP- Trestle piles No 20 & 21 in comflict with beams at Lower Concourse level** **Closed** **11/01/2013** **11/11/2013** **11/07/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Following a review and discussion with Thornton Tomasetti on the trestle pile locations, it has been noted that trestle pile numbers 20 and 21 (see sketches attached) are in conflict with beams (B4A) at the escalator pits on the lower concourse slab elevation between gridline 11-12, D-F. The contractor is proposing to blockout a section of slab as shown on the sketch, this blockout section would then be infilled once the trestle pile has been removed.

The contractor is to insure that the appropriate reinforcement lap splices are present between these concrete pours.

Please confirm if this option would be acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/7/2013
RESPONSE:
Contractor proposed approach is acceptable. Note that the trestle pile also encroaches on the pit slab as well and will have to be addressed.

Include proposed reinforcement in rebar submittal for review.

T-0876 **RFI T-0876 BGP- Trestle piles No 10,12 & 14 are in conflict with a step in the slab a** **Closed** **11/01/2013** **11/11/2013** **11/27/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Following a review and discussion with Thornton Tomasetti on the trestle pile locations, it was noted that trestle pile numbers 10, 12 and 14 (see sketches attached) are in conflict with a step in the slab on the lower concourse elevation between gridline 06-08, E-F. Thornton Tomasetti noted it may be possible to move this step clear of the trestle pile blockout locations.

Please confirm if this option on moving the step location is still possible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/26/2013
RESPONSE:
The plan location of the drop shall remain. In order facilitate temporary conditions, such as support of the slab transition without shoring, Detail 2/S1-3501 may be modified increasing the distance "6D" to allow additional reinforcing bars to replace bars interrupted by the blockout in the temporary condition. Additional simplifications to the temperature steel continuity may be allowed. The specific details of the blockout shall be provided by the contractor in accordance with General Note GR-9 on S-0005 and shall provide continuity of longitudinal and temperature steel in the final condition.

T-0877 **SSS - Light Column Blockout at GL 23** **Closed** **11/04/2013** **11/14/2013** **11/08/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference sketchs: SK1 and SK2

1. Please supply the angle to locate the anchor bolts as referenced in SK1
2. Please supply the material grade of the stiffeners, shear tabs, and welded shear keys as referenced in SK1
3. Please confirm a 6"x6" corner clip is acceptable or supply the dimensions as referenced in SK1
4. Please confirm a 2" set back from the edge of the base plate to the edge of stiffener plate is acceptable or supply the dimension.
5. Please supply oversize hole criteria as referenced in SK2

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Question 1: Angle as indicated in SK1 = 8.18 degrees
Question 2: Material grade of stiffeners, shear tabs, and welded shear keys as referenced in SK1 is ASTM A572 Gr. 50
Question 3: 6" x 6" corner clip as referenced in SK1 is ok
Question 4: Set back from the edge of the base plate to the edge of stiffener plate is 2" (note: as shown in dim. line on 3/S1-6008).
Question 5: As referenced in SK2, oversized hole diameter = 6-1/2"

T-0878 **BGP - All of Lower Concourse Slab Edge Dimension Discrepancies** **Closed** **11/04/2013** **11/14/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Please refer to similar RFI T-0838 and T-0838.1.

The structural drawings for the lower concourse (SI-2202 through SI-2207, framing plans) do not include dimensions for the slab openings. Scaled dimensions from these drawings conflict with many of the dimensions provided on the architectural slab edge plans (AI-2842 through AI-2847).

Please see attached for observed conflicts (highlighted). Please confirm that the dimensions shown on the architectural plans at the slab openings are correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/18/2013
RESPONSE:
The attached SKAs are provided to clarify and confirm current slab openings as well as setting out of couplers at the Lower Concourse Level.

1. For setting out of slab openings at the Lower Concourse Level, refer to the Lower Concourse Level Slab Edge Plans (SKA-2916 to SKA-2923).

2. For Setting out of PH1 walls at the Lower Concourse Level, refer to the Lower Concourse Level Zone Plans (SKA-2900 to SKA-2907) and Enlarged Plans (SKA-2924 to SKA-2945).

3. For setting out of couplers for PH2 walls, refer to the Lower Concourse Level Wall Plans (SKA-2908 to SKA-2915).

Note: The "Wall Plans" show wall starter couplers installed in the Below Grade Package, however the "Wall Plans" provide coupler setting out dimension for Phase 2 walls only. For coupler setting out for walls and curbs constructed in Phase 1, refer to the wall types and dimensions shown on the Lower Concourse Level Zone Plans.

T-0879 **BGP - Elevator Opening Embed Conflicts with Future Walls** **Closed** **11/04/2013** **11/14/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached Detail4 on SI-7630, attached AI-2202 thru AI-2205 and AI-2207. The following drawings are for reference SI-2202 thru SI-2205 and SI-2207, SI-7130, SI-7132, SI-7134, SI-7136 and SI-7139.

Please confirm no conflict exists between embed Detail 4 on S1-7630 and future walls highlighted on attached architectural drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/18/2013
RESPONSE:
The elevator embed is at the edge of the elevator shaft opening. A curb is being provided for the elevator shaft walls. The embed and end of the beam are within the curb zone.

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Contractor shall coordinate sequence of construction of work between trades so that the beam and embed will be cast into the curb for the shaft wall.

T-0879.1 **BGP - Conflict of Elevator Opening Embed and Future Walls** **Closed** **11/25/2013** **12/05/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

SCCI is in receipt of RFI response T-0879. TT's response does not fully address the conflict brought up in the original RFI. TG06.0 contract drawings do not show a curb at the edge of the elevator openings at the lower concourse level.

Please address and provide details regarding the embed in question in RFI T-0879.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/6/2013
RESPONSE:
As indicated in the response to RFI T-0879, the end of the beam and the embed will be cast into the wall curb. The sketches provided with the response to RFI T-0879.1 illustrate the relationship of the beam and the future wall curb. The concrete curb on the elevator shaft walls in Phase 1 will be extended under the future W-5 cladding and its supporting walls in Phase 2. The HSS rail support embed is within the concrete curb zone for both phases.

Refer to the following attached SKAs:

1. SKA-2958 to SKA-2962 - Lower Concourse Zone Plans showing locations of the Service and Passenger Elevators.

2. SKA-2963 to SKA-2967 - Enlarged Plans of Service and Passenger Elevators showing Partition Types with Concrete Curbs.

3. SKA-2968 - Section Detail at Service Elevator Shaft at Pit showing HSS elevator rail support beam.

4. SKA-2969 - Concrete Curb Schedule.

T-0880 **BGP - Receptacle Requirements at Elevator Pits Near GL 19/E and 20/G** **Closed** **11/04/2013** **11/14/2013** **11/13/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:
Please refer to drawing E1-2024 and E1-2025

There are elevator pits in the mat slab at approximate grid lines 19/E and 20/G. The drawings E1-2024 and E1-2025 do not show any receptacles being supplied to these pits. Please confirm this is correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger
11/13/2013
RESPONSE:
These receptacles are not required within the BGP package. The only active elevator in Phase 1 is PE203 at the west end. The elevator pits in question will be provided with power in Phase 2. Provisions have been made to run conduit at that time.

T-0881 **BGP - Vehicle Ramp Wall Embedded Supports** **Closed** **11/05/2013** **11/15/2013** **11/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:
Please reference attached detail6 S1-3203, attached detail10 S1-3204, RFI Response T-0453.1, RFI Response T-0835 and attached SKA-2863.
RFI Response T-0835 confirmed that the vehicle bike ramp wall intersects the foundation wall at a 97 degree angle. Where this ramp wall intersects the foundation wall, embeds per detail 6 on S 1-3203 and detail 10 S 1-3204 are required. SCCI and its embed supplier has a constructability concern with these embeds. A similar constructability concern was brought up in RFI T -0453.1, stating that if an angle
member of such thickness is bent to achieve an angle other than that member's stock angle, it will structurally stress that member.

1. Please confirm it is acceptable to weld two (2) 8"x24"x1" plates together in order to achieve angle prescribed in RFI Response T-0835. Reference SKA-2863 for the acute and obtuse angles required. Forthcoming shop drawings will show all welds.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
George Metzger
11/17/2013
RESPONSE:
Contractor proposal to weld 2 plates to create an angle is acceptable as presented in the RFI.

T-0882 **BGP - Column Tie Change from T9 to T12** **Closed** **11/05/2013** **11/15/2013** **11/13/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Shimmick Construction Company, Inc Ben Gordon

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Please refer to drawing S1-3304 to S1-3306.

Please confirm if it is acceptable to replace the typical T9 column ties (90° or 135° bend on either end) with Tl2 ties (135° bends on both ends). See the attached SCCI sketch SK-101 for further details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/12/2013
RESPONSE:
It is acceptable to replace T9 column ties with T12 for Column Types C1 and C2. Note that the location of the second cross-tie from each end is not shown correctly in SK-101. In SK-101, these two cross-ties shall be flipped to clear the shear plates for the steel column base plate at Lower Concourse Level. Refer to Sheet S1-3304 of the construction drawings where the column reinforcement details Type A1 (for Column C1) and Type A2 (for Column C2) are shown. Refer to Sheet S1-5051 of the construction drawings for information on steel column base plate details.

T-0883 **SSS - Brace Beam Connection Details** **Closed** **11/05/2013** **11/15/2013** **11/18/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please review sketch CD RFI 059 SK1 and details 1/S1-5016 and 1/S1-5018 for type 1 - drag connection details on brace beams at the Bus Deck Level framing plan.

1). Please verify the bottom flange of brace beams noted in detail 1/S1-5016 can be cut flush to the beam web on both sides of web allowing beam to be erected between the shop welded connection plates on the cast node.

2). Verify the diagonal bracing beam web connection plate noted in detail 1/S1-5018 can be shifted to the acute angle side of the connection as indicated in the attached sketch and bottom flange cut flush to the web to allow beam to be dropped into location in the field.

3). Please provide welding details for the relocated web connection plate to the supporting grid beam as connection plates will overlap at these locations.

4). Please verify if additional bolts are required connecting the flange plate where the dimension to the plate edge and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE:
1) Acceptable. See response to RFI T-0869 for the extents of the bottom flange cope.

2) Moving the web connection plate on the other side of the beam is acceptable however, the shear plate shall still be welded to the north-south girder not the east-west running beams as shown in SK1 of this RFI. With this modification, the diagonal beam centerline will not coincide with the connection work point. This eccentricity shall be minimized as permitted by the connection geometry and shall not exceed 1". The question regarding flange coping is not clear, please provide a sketch that shows the intended coping. Note that there are bolted flange plates top and bottom.

3) Use of PJP welding (full web thickness) is acceptable where the shear plates are welded to the girder web. See also response to 2nd question.

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the last row of connection bolts exceeds limitations noted in the 13th Edition (AISC) manual section 16.1-J3, Item 5a.

4) Additional bolts are not required.

T-0883.1 **SSS - Brace Beam Connection Details** **Closed** **12/11/2013** **12/21/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to question # 2 on T-0883 (SK RFI # 092) requesting clarification of the beam flange cut refer to sketch CD RFI 059A.1 SK1 and confirm the bottom flange cut flush to the beam web as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed the bottom flange cut flush to the beam web is acceptable.

T-0884 **BGP - Column Dowels at GL 5/H** **Closed** **11/06/2013** **11/06/2013** **11/13/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to attached drawing S1-2022 and SCCI sketch SK-102.

The dowels for the column near gridlines 5/H were not installed to the required D4-1 configuration and has been casted in concrete. 4EA perimeter vertical bars were omitted from the column but the spacing/grid was maintained per the D4-1 layout. In addition, 16EA dowels were installed at the interior of the column as depicted in SK-102.

Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/12/2013
RESPONSE:
At Column C3 near GL 5/H, design works despite the 4 dowels Contractor did not install (shown as "X" in the RFI). Therefore, it is acceptable to construct the column without these 4 bars. The extra dowels inadvertently installed by Contractor at the column interior (bars not in Construction drawings) are not needed and shall be abandoned.

T-0885 **BGP - Field Realignment of Concrete Reinforcement per CRSI** **Closed** **11/06/2013** **11/16/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

SUGGESTION:

ANSWER:

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Accept Suggestion: ☐

Please refer Contract Specification Section 03 20 00-3.1.A.6.b and attached excerpt from CRSI Chapter 11

Contract Specification 03 20 00-3.1.A.6.b states, "No field bending of bars partially embedded in concrete is permitted, unless specifically approved by the TJPA Representative and tested by Independent Testing Laboratory for cracks."

1. Please clarify if the statement applies to field realignment as defined in CRSI Chapter 11.
2. Please confirm if it is acceptable to field realign bars per the parameters described in CRSI Chapter 11.

George Metzger
11/17/2013
RESPONSE:
Field bending, including field realignment, of partially embedded reinforcing shall be subject to the approval of the SEOR on a case-by-case basis.

T-0886 **BGP - Round Column Tie-Hook Modification** **Closed** **11/07/2013** **11/17/2013** **11/15/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please refer to drawing S1-3304.

In the round columns (type Al, A2, A3, Bl, B2 and B3), Gerdau proposes to change the 90° hooks to 135° hooks in order to allow for more room to install the vertical bars and their couplers. Please refer to attached SCCI sketch SK-RFI-373 for reference of proposed detail.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/14/2013
RESPONSE:
Proposed 135 degree hooks are acceptable for the columns indicated in the RFI. The hooks shall be "Seismic hook" per ACI 318-08 and overlap min 6" as called out in Construction Drawings (See Sheet S1-3304).

T-0887 **SSS - Moment Beam to Column Web Connection Clarifications** **Closed** **11/07/2013** **11/17/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to the moment beam to column web connection details on 5/S1-5012, 10/S1-5013, and 2/S1-5019 in regards to the following:
1) Please confirm the dimensions and weld prep noted are acceptable. [Reference CD RFI 080 SK1]

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE:
1) Confirmed.

2) Typically (unless otherwise noted), moment frame continuity plates are per Detail 5/S1-4202 and

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2) Confirm the increased thickness and placement of the continuity plate are acceptable to allow for beam over roll. [Reference CD RFI 080 SK1]
3) Please confirm the continuity plate dimensions noted on CD RFI 080 SK2 are acceptable. Note that the "a" dimension shown is defined as ½(bf-tw).
4) Please confirm the dimensions and weld prep indicated for the Type 4 Drag connection are acceptable. [Reference CD RFI 080 SK3]

continuity plate thickness match the thickness of the moment frame beam flanges as shown in relevant details in Sheet S1-4201 and S1-4203. However, at joints GL 32.4/D.4 and GL 32.4/E.6 at Second Level where Detail 5/S1-5012 is called out, continuity plates at the beam bottom flange (bottom continuity plate) shall be 2 1/2" thick. In addition, at GL 32.4/D.4 locate the bottom continuity plate such that top of the continuity plate is aligned to top of the bottom flange of the BU40 Moment Frame Beam. At GL 32.4/E.6 locate the continuity plate such that bottom of the continuity plate is aligned with bottom of the bottom flange of the BU 40 moment frame beam. The reason this is needed is that although the moment frame beam is 40" deep in both cases, the perpendicular beam sizes are different at GL32.4/D.4 (W40x294, d = 40 3/8") and GL32.4/E.6 (W40X199, d = 38 5/8") therefore continuity plates need to be thick enough to pick up both the moment frame beam and the perpendicular beam bottom flanges.

3) Confirmed.

4) Confirmed.

T-0887.1 | **SSS - Moment Beam to Column Web Connection Clarifications** | **Closed** | **12/11/2013** | **12/21/2013** | **12/16/2013** | **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

After reviewing the response to item 2 on SK RFI 104 we believe a thickness increase should be allowed for the bottom continuity plate to allow for mill tolerance of rolled sections as per AISC Table 1-22(attached).

1) Due to mill tolerances the actual depth of a beam can over run in depth from -1/8" to +1/8" at the beam centerline.
2) Due to mill tolerances the axis of the flanges in relation to the beam web can have an out of square effect of as much as 5/16" from toe to toe of the beam flange.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that it is acceptable to increase the bottom continuity plates by 1/4"

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Increasing the continuity thickness provides a reasonable land for back up material for the fill penetration weld required in the field (see attached sketch SK1 for clarification)
Please confirm it is acceptable to increase the bottom continuity plates by 1/4".

T-0888 **SSS - Rebar Holes and Headed Stud Details** **Closed** **11/07/2013** **11/17/2013** **11/14/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference detail 9/S1-3701 and the noted grid lines G.9.9 and G.10.1 on S1-2303 and provide clarification on the following items. Refer to CD RFI 105 SK1 through SK3 for additional information.
1) Confirm the headed studs in the transfer girder per 11/S1-3701 may be located as shown.
2) Confirm the slope of MFB 6 is 1.097° as indicated in CD RFI 105 SK2 or advise otherwise.
3) Provide the vertical dimension indicated on CD RFI 105 SK2 to located PL 1 ½" x 14" x 2'-6" (added in ASI 106).
4) Confirm it is acceptable to locate the first row of holes 6" above the underside of the transfer girder as indicated in CD RFI 105 SK2.
5) Provide the vertical dimension required to locate the row of 3" dia. holes indicated in CD RFI 105 SK2.
6) The hole indicated fouls the stiffener as shown in CD RFI 105 SK3. Confirm the spacing may be reduced to 5" at this location to clear the stiffeners and weld for the stiffeners to the beam web.
7) The two holes indicated on CD RFI 105 SK3 are located directly adjacent to the stiffeners with no clearance. Please advise if this condition is acceptable or if the holes are to be shifted to avoid the stiffeners.
8) Provide the vertical dimension required to locate the 3" dia. holes as indicated in CD RFI 105 SK2. Please verify the other holes in this row are to be located per the angle and spacing in items 2 & 7.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT's response:

1). Confirmed

2). 1.06 degree

3). Center line of the plate at EL.15.66 (for bottom bars in 48' deep beam)

4). Confirmed

5). Center line of the holes are at EL. 14.66 (for bottom bars in 60" deep beam).

6). Confirmed

7). Confirmed that the holes are to be shifted to clear the stiffeners.

8). The 2 holes in column can be shifted as noted in item 7). The holes in this row may be located per items 2 & 7 (following the slope of the concrete beam, center line of the hole at 1.75" above the bottom of the MFB6.

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T-0889	**SSS - Rebar Hole Clarifications For TR11**	**Closed**	**11/08/2013**	**11/18/2013**	**11/15/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference grid G.11 on S1-2303 and provide clarification on the following items per detail 8/S1-3702.

1) Provide the vertical dimension required to locate PL 1 ½" x 14" x 2'-6" in alignment with the lenton couplers as indicated in CD RFI 107 SK 2.
2) Provide the vertical dimension required to locate the hole indicated in CD RFI 107 SK2, which is shown to be 3" from the end of TR11. Please confirm the other holes in this row are to be located per the spacing shown and the angle confirmed in item 3.
3) Confirm the slope of MFB 5 is 1.057°as indicated in CD RFI 107 SK 2 or advise otherwise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE:
1). Center line of the 2 1/2" plate at EL. 15.58" (4" above the bottom of the 48" concrete beam).

2). Center line of the hole is at EL. 15.476" (1.75" above the bottom of the 48" concrete beam).

3). Slope is 1.09 degree. Slope shall be calculated based on the top of concrete slab elevation shown on the drawings, not relying on the Revit model or other electronic files.

T-0890	**SSS - Rebar Hole Clarifications for Transfer Girders**	**Closed**	**11/08/2013**	**11/18/2013**	**11/14/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference grid C.9 & C.11 at the ends of the transfer girders shown on S1-2303 and provide clarification on the following:

1) Confirm the noted angle (1.23°) is the correct slope of MFB1 & MFB12 (per Revit Model). If not, provide the correct angle.
2) Provide the vertical dimension indicated on CD RFI 109 SK2 required to located the first hole and confirm the remaining holes are to be located per the angle noted in item 1 and the spacing indicated on detail 6/S1-3702.
3) Confirm the 3" dimension shown to locate the first hole is acceptable or provide an alternate dimension.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed.

2) The center of the bottom holes are to be 1.75" above the bottom of the 48" concrete beam.

3) Confirmed.

T-0891	**SSS - Detail Clarifications for TR to MFB1 at C.9.9**	**Closed**	**11/08/2013**	**11/18/2013**	**11/14/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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T-0892	level B bracing - Concourse Slab elevation conflicts gridline 1- 9	Closed	11/08/2013	11/18/2013			Potentially ☐

Please reference grid C.9.9 and C10.1 for the transfer girder to moment beam connection shown on S1-2303 and provide clarification on the following:
1) Confirm the noted angle (1.2°) is the correct slope for MFB 1 (per Revit Model). If not, please provide the correct angle. [Reference CD RFI 110 SK1 & SK2]
2) Confirm the depth of MFB1 is 48" at this location in accordance with 6/S1-3600. [Reference CD RFI 110 SK2]
3) Confirm the noted elevation. [Reference CD RFI 110 SK2]
4) Provide the width and length of vertical slots to be provided at the 18" stiffeners. [Reference CD RFI 110 SK2]
5) Provide the vertical dimension required to locate the #10 bar shown and subsequently the 2" dia. holes through the beam web (SK3), the vertical slots through the 18" stiffeners, and the 3" diameter holes through the 2'-9" stiffeners.
6) Confirm the bar indicated represents the beam top bar and that the dimension indicated (3 1/16") is correct. Note this dimension is based on 5/S1-3600. [Reference CD RFI 110 SK2]
7) Confirm detail 6/S1-3705 accurately reflects the number of headed studs and spacing required. Otherwise, please provide the requested A, B, C, & D dimensions.
8) Detail 4/S1-3705 indicates that 3-3" diameter holes are to be provided in the web stiffeners on each side while only two #10 bars with terminators are indicated to be provided. Further, the section cut 6/S1-3705 (issued with ASI 106) calls for #9 bars at this location. Please clarify the intent of this detail as it pertains to the rebar configuration and stiffener hole details.
9) Provide the dimension required to located the first 2" dia. hole from the end of TR9.9 and TR10.1 and confirm the spacing of the remaining holes is to be 8" OC as noted on 6/S1-3705.
10) Confirm the dimensions indicated are accurate or provide the required dimensions at this location. The dimensions shown are based on detail 5/S1-3600 and should be confirmed based on the answer provided in Item 8.

1). The slope shall be 1.30 degree at Grid 9.9 and 1.16 degree at Grid 10.1 per top of concrete slab elevations noted on the plan. Revit model (and other electronic files) shall not be used for establish dimensions.

2). Confirmed that the MFB1 is 48" deep per beam schedule on S1-3600.

3) Top of concrete is at 17.59 at Grid 9.9 and 17.55 at Grid 10.1

4). The bottom of the slots are at 2" from the bottom of the concrete beam to allow the beam bottom bars to go through.

5). The center line of the beam bottom bars shall be at 2.375" above the bottom of the concrete beam (1 1/2' cover + diameter of the ties + 1/2 of the longitudinal bar diameter).

6). The dimension shall be 3.8125" per 5/S1-3600 (2 3/4" cover+ tie diameter+ 1/2" longitudinal bar diameter)

7). A=15", B=5, C= 12", D= 16".

8). Only one hole each side is needed in vertical stiffeners to allow the #10 bars to go through. See 6/S1-3705 for locations of the hole.

9). First hole is 6" from the end of beam. The holes are at 8" on center to match with the tie spacing noted on beam schedule.

10). The 2 9/16" dimension noted shall be changed to 3", the 1'-07/17" dimension shall be changed to 1'-0" (for a total beam width of 30" as noted in the beam schedule).

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From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author:

REQUEST:

Further to email from the design team (Lee Ishida of Thornton Tomasetti) dated 09/03/13) "the design team wants to pursue with option on SK-2, provided the layout of the pin-pile columns has been coordinated with the moment frame beams so that the block-outs indicated in the sketch do not interfere with the moment frame beams" this option on SK-2 will be used where the strut support beams of the trestle and the internal bracing system are in conflict with the concourse slab, on the other conflicts around the perimeter CDSM wall where the lookout supporting the walers are in conflict with the waterproofing lap length requirements, the lookouts will be relocated above the walers to achieve the necessary lap requirements.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0892.1 **BGP Level B bracing - Concourse Slab elevation conflict gridline 1-9** **Closed** **11/13/2013** **11/23/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

The answer to RFI T-0892 does not answer the intended question, it was not a question on waterproofing requirements, the intended question was to confirm that the design team wish to proceed with the preferred option on sketch SK-2 i.e. to moving the conflicting Level B internal bracing elements to the revised location above the struts or walers whichever is applicable, if this is an acceptable solution, WOJV will proceed and engage the contractor and the Engineer of record for the bracing system to elaborate on this design and install these fixes in the field.
WOJV have already established the waterproofing lap length requirements in coming up with these fixes.

Please confirm that this is the preferred solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/19/2013
RESPONSE:
Having been provided with only schematic representations of the proposed excavation bracing relocation, SK-2 appears to be a preferred solution. Excavation shoring design is a contractor provided item and it is up to contractor to determine the particular temporary configuration that will produce the finished structure as designed. This includes due regard to number and location of block-outs which should not encroach upon the moment frame beams. To this point, we note that pin-piles 19-22 are in close proximity to gridlines (and moment frame beams). This also may be the case for pin-pile 6 and 18. Note that past discussions also included the possibility of removing pin-pile 8 prior to Lower Concourse construction. In any case, any change to the excavation bracing shall be formally submitted for

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review.

T-0893 **BGP - F15 Fixtures on Dimmeable or Non-Dimmeable Lighting Circuits** **Closed** **11/11/2013** **11/21/2013** **11/13/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor/Obayashi Joint Venture Bob Garcia

REQUEST:

Please refer to drawing E-0006.

General Note N on DWG E-0006 states in part: "Allocate a maximum of three dimmable lighting branch circuits (multiwire) per conduit home run. Allocate a maximum of six non-dimmed lighting circuits per conduit home run." The type F15 fixtures used throughout the job on the train platform level are fed from, Panels designated "EDMH," which are dimming panels.

Are the circuits feeding these lights considered dimmable lighting branch circuits? Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/12/2013
RESPONSE:
Confirmed, circuits feeding type F15 fixtures are dimmable circuits. Provide separate neutral for each branch circuit per requirements of specifications 26 05 19 par. 3.1.I.

T-0894 **SSS - Double Angle Connection Conflicts Along GL** **Closed** **11/11/2013** **11/21/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference CD RFI SK1 to SK3 indicating the plate on the transfer girder which typically fouls the beam to transfer girder connections along grid lines C.3 and F.7. This is typical at the following locations at Ground Level: 2/C.3; 4/C.3; 5/F.7; 6/C.3; 8/C.3; 9.9/C.3 (see SK2 & SK3); 10.1/C.3 (see SK2 & SK3); 12/C.3; 14/C.3; 16/C.3; 19.9/C.3; 20.1/C.3; 21/C.3; 23/C.3; 23/F.7; 24/C.3 & 24/F.7

Please confirm that the response and details provided in W/O RFI T-0820 can be applied at these locations, thus shear plates may be used in lieu of double angle connections. (W/O RFI T-08020 response is attached for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Shear plate connection details provided in the response to the RFI T-0820 may be used in lieu of double angle connections at the locations noted in the RFI where the intermediate transfer girder plate fouls the double angle connection. For W16 and deeper beams, the total number of bolts at a shear plate connection shall be per schedule on 2/S1-5011. Provide two bolts in the top shear plate and remaining bolts in the bottom shear plate. For W14 and shallower beams provide two bolts with only the top shear plate. Bolt edge distances, shear plate thickness and welds shall be per 2/S1-5011 with the exception of W40 beams where the vertical bolt edge

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reference.)

distance may be reduced to 1 3/4".

T-0895 **BGP - Concrete Curb Schedule on Drawing A-0022** **Closed** **11/18/2013** **11/22/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

ASI #107 released updates to drawing set A1-2122 to A1-2127 with the changed note at the top right of page. Previously, CC= concrcrete curb were stated as "CC-Cone curb not in TG06." In ASI 107, this note was revised to "Cone curb ref to A-0022 for cone curb schedule. Ref to struct dwgs for coupler details".

1. Drawing sheet A-0022 is not a part of issuance in ASI 107. Please provide referenced drawing for coordination.

2. Please provide details on how to install CC in Area 3 where the concrete has been placed with no coupler/ dowels.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/218/2013
RESPONSE:

AAI Response:
1. Refer to Attached SKA-2950, which is based on A-0022, showing the Concrete Curb Schedule.

TT Response:
2. Refer to Detail 2 of S1-3002 for curbs where concrete has been placed without couplers or dowels.

T-0896 **SSS - Shear Connection detail at Transfer Girder** **Closed** **11/11/2013** **11/21/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to detail 2/S1-5011 and CD RFI 147 SK 1 and clarify the following:

1) Provide the stiffener plate thickness and confirm the back-up stiffener is required at every shear plate location.
2) Confirm weld "F" is to be applied to the stiffener plates.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Stiffener plate thickness to match shear plate thickness provided in the same detail. Back-up stiffener is required with the exception of GL 3/F. At GL 3/F, there is a shear plate connection on one side of the transfer girder and there is a double angle connection on the other side, therefore a back-up stiffener is not required.

2) Confirmed.

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T-0896.1	**SSS - Shear Connection detail at Transfer Girder**	**Closed**	**12/12/2013**	**12/22/2013**	**12/26/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The response to RFI T-0896 confirmed that a full depth back-up stiffener will be required at every shear plate location with the exception of a few locations. Along grid 10.1, between grids D.8/E there are full depth connections for a W33 and W24 staggered on either side of the Transfer Girder that are 4" C/C of beams.

1. Please verify if it is acceptable not to provide a back-up stiffener at these locations? See CD RFI 147.1 SK1 & SK2.
2. If back-up stiffeners are not required at these locations, please provide a max offset dimension where stiffeners can be omitted for similar conditions. See CD RFI 147.1 SK1 & SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Backup stiffener can be waived if there is another full depth shear plate on the opposite side of the connection plate within a distance not more than 6".
2) See Response to 1).

T-0897	**SSS - NE Coordinate Accuracy**	**Closed**	**11/12/2013**	**11/22/2013**	**11/19/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference is made to drawing C-0100, "TTC Grid and Alignment Control." The northing and easting coordinates are provided with only two decimal places, producing a considerable amount of calculated error between the coordinates and the gridline dimensions. Please provide the N/E coordinates with at least four decimal places to reduce the calculated error from the gridline dimensions.

Additionally, the N/E coordinates provided at Grid 2/W appear to intersect with Grid 2/G. Please advise if these grid lines intersect and if the N/E coordinates provided also apply to 2/G.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE:
Two decimal places are adequate. Assume there are an infinite number of zeros after the two decimal digits.

The N/E at the intersection of grids 2/W also apply to the intersection of grids 2/G.

T-0898	**SSS - Weld Access Hole and Weld Tab Sizes at CJP**	**Closed**	**11/12/2013**	**11/22/2013**	**11/22/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference detail 4/S1-4205 indicating the EBF Link

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1a) Modifying the weld access hole geometry is not

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Beam cross section, also detailed in OIW sketch 2770-SKTH01 attached.
1) The specified 1" x 5" weld access hole does not allow for weld runoff tabs to be added as specified in AWS D1.8 paragraph 6.11.1.
a. Please confirm that the 1.5" x 5' weld access holes detailed in OIW SK 2770-SK-TH01 are acceptable to accommodate the 1" weld tabs.
b. Please confirm that the weld tabs are to remain after welding as allowed by AWS D1.8 paragraph 6.11.

2) The specified CJP weld using a backing fillet and welded substantially from one side increases weld distortion compared to a balanced weld. Please confirm that the proposed double bevel CJP weld is acceptable.

acceptable. At this location, weld ends can be cascaded as shown in Figure C-6.3 of AWS D1.8, similar to continuity plate welding details.

1b) Weld tabs not required, see response to 1a.

2) Double bevel CJP weld (DCW) as proposed by the contractor is acceptable.

T-0898.1 **SSS - Weld Access Hole and Weld Tab Sizes at CJP** **Closed** **12/06/2013** **12/16/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to Webcor/Obayashi RFI T-0898 (SK 146), weld tabs are not required for stiffeners at EBF girders and it is acceptable for weld ends to be cascaded down as down in Figure C-6.3 of AWS D1.8.

In accordance with this response, please reference SK-TH01 attached and confirm that the "extent of CJP weld/UT testing" and "cascaded weld area" detailed are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

T-0899 **BGP - Electrical Room Dimensions in RFI 778.1,780.1,781.1 & 782.1** **Closed** **11/12/2013** **11/19/2013** **11/15/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

The AAI mark ups included in the responses to RFI 778.1, RFI 780.1, RFI 781.1 and RFI 782.1 do not reflect dimensions in the latest ASI 107 documents or submittal

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/14/2013
RESPONSE:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

review comments in the Comprehensive Mat Slab Drawings in submittal drawings package TG0600-0103.

For example, the face of wall of Electrical Room B2460 per Response to RFI 780.1 is shown as 4'-0" from GL 15, however the latest drawing issued in ASI 107 A1-2124 shows the face of wall to this room as 3'-7 5/8" from GL 15. Shimmick has poured this area(Area 8) per ASI 104 which shows this dimension to be 3'-8". The next area to be impacted by these discrepancies will be placed on 11/24/2013.

This discrepancy is present in all of the dimensions issued in the mark-ups included in the RFI responses (attached) and the rooms shown in RFI 781.1 and 782.1 are scheduled to pour on 11/24/13.

Please provide a conformed drawing that shows the current layout for the following Electrical Rooms: B2640, B2461, B2441, B2560.

The attached SKAs clarify and confirm current layouts/dimensions of Electrical Rooms mentioned in RFI T-0899 as well as setting out of all other PH1 walls at the Train Platform Level.

1. For setting out of PH1 walls above the Train Platform Matt Slab Level, refer to the Zone Plans (SKA-2871 to SKA-2878) and Enlarged Plans (SKA-2893 to SKA-2894).

2. For Setting out of knee walls under the Train Platform Level, refer to the Train Platform Level Slab edge plans (SKA-2885 to SKA-2892) and Detail Section (SKA-2895).

3. For setting out of couplers for PH2 walls, refer to the Train Platform Level Wall Plans (SKA-2879 to SKA-2884).

Note that Detail Section 1 on SKA-2895 shows that for the platform MEP rooms, the edge of slab, dimensioned on the Train Platform Level Slab Edge Plans, aligns with the face of wall for the room. However, the face of the knee wall below is set 4" outside of the Platform Level Slab. This step is to provide a key for the future train platforms.

The Wall Plans were included in the TG06 Below Grade Package specifically for the setting out of wall starter couplers. The Wall Plans should not be used for the setting out rooms to position electrical equipment etc. The Zone Plans are more appropriate for this purpose

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T-0900 **SSS - Weld Test Requirements for Castings** **Closed** **11/13/2013** **11/23/2013** **11/21/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The cast node material is not a prequalified base material, thus a PQR test for all welds to the cast material is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Ground, Bus Deck and Roof Castings are welded to 32" diameter pipes therefore per Table 4.1 of AWS,

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required. The cast node manufacturer, Bradken, has indicated that all test materials will be supplied in flat plate form only. While AWS D1.1 Table 4.1, Note b qualifies that pipe diameters greater than or equal to 24" may be tested on
flat plate, AWS D1.1 Table 4.1 requires that all pipes under 24" must be tested in tubular form. Please confirm it is acceptable to perform all PQR testing for castings less than 24" in diameter, including the 16" diameter castings at the Light Column, on flat cast plate material.

PQR can be performed with flat cast plate material. For the light column upper cast node which connects a 28inch tube with a 16inch tube, we confirm that the PQR can be performed with flat cast plate material.

T-0901 **SSS - Edge of Slab Support Clarifications** **Closed** **11/13/2013** **11/23/2013** **11/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1) Please confirm the weld indicated is intended to be an overhead weld from the outstanding leg of the L5x5x3/8 angle to the underside of the bent plate.
2) Provide required weld size and minimum weld lengths as indicated in CD RFI 112 SK1.
3) Confirm it is acceptable to hold the L5x5x3/8 angle 1" back from the edge of slab.
4) Provide minimum required size of gusset plate and welding information as indicated in CD RFI 112 SK1.
5) Confirm it is acceptable to typically locate the bolts 3" from the edge of the gusset plate as shown on CD RFI 112 SK1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Use a 3/16" double sided fillet weld between the gusset plates and beam web/flange. Weld shall be provided for the entire length of the gusset plate in contact with the wide flange beam.
3) Confirmed. Note that the 1:1 slope requirement on the kicker angle supporting the cantilevered portion of the slab is not required.
4) Provide a top gusset plate with a minimum length of 5" and
a) the centerline line of the kicker angle intersects the center of the gusset plate length at the top of the plate. Provide 3/16" double sided fillet weld between the top gusset plate and beam flange. Provide bottom gusset plates with minimum dimensions of 5"x 5". A minimum bolt edge distance of 1.5" shall be provided at the kicker angles with the bolts centered on the angle legs.
b) edge distance to the bolt is 1.5" min on all sides.

T-0902 **BSE - Repair of damaged column rebar at Area 7 south of the trestle** **Closed** **11/13/2013** **11/23/2013** **11/13/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Ted Williams

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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REQUEST:

During level D bracing removal in area 7, a column rebar dowel was bent, as shown in the attached photograph.

BBII proposes to:

1. Abandon the bent rebar

2. Drill and Hypoxy

3. Leave the dowel as is, couple the bar onto it and bring it back in line as the bar continues vertically. Place an additional equal size bar along side the damaged bar as a replacement, possibly a 90 degrees hook at the base (Sketch 1 attached)

4. Concrete around the rebar to be removed.The bar would be cut and a bar lock would be used to couple the rebar .(Sketch 2 attached)

Please advise on which option is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0902.1 **BSE - Repair of Damaged Column Rebar at Area 7 south of the Trestle** **Closed** **11/18/2013** **11/28/2013** **11/21/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

During level D bracing removal at area 7,a column rebar dowel was bent, as shown in the attached photograph.

Please see below repair options:

1. Abandon the bent rebar leave it in its current position projecting 5' above the mat slab, place and additional equal size bar alongside the damaged bar as a replacement with possibly a 90 degrees hook at the base

2. Leave the dowel as is, couple the upper section of the bar onto it and bring it back in line as the bar continues vertically

3. Drill and epoxy in a new same sized bar beside the damaged one, the slab would have to be scanned for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Option 3 is acceptable with the following notes:

1. Damaged rebar shall be cut off at slab level.

2. New starter bar to be doweled with approved adhesive.

3. New starter bar shall be placed as close as possible to original bar location and bar location to be approved by SEOR.

4. Remaining column starter bars and mat reinforcing shall be avoided.

5. Mat cover concrete may be removed locally to abandoned bar.

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rebar location and new location pick to avoid damaging the existing reinforcement.

4. Concrete around the rebar to be removed the bar would then be cut and a new bar welded to it.

5. Concrete around the rebar to be removed .The bar would be cut and a barlock would be used to couple the rebar this could be difficult to achieve due to congestion with the top mat reinforcement and the depth required for the bar lock to be fitted

Please advise on which option is acceptable.

6. Minimum embedment shall be 45".

7. Starter bar to be shop bent no greater than 1:6 (sim 4/S1-3001) so that column reinforcing geometry is resumed per S1-3304.

T-0903 **SSS - Location of Roof Beams for W-1 Glazing** **Closed** **11/14/2013** **11/24/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1) The W-1 glazing system wireframe transmitted by Webcor/Obayashi locates the beams that back up the W-1 glazing system supports. At the roof level on S1-2602 to S1-2607, refer to sketches CD RFI 133 SK1 to SK6 and verify the clouded dimensions in red which locate the beams in question based on the structural wireframe model transmitted.

2) Once the beam locations in question are confirmed, it is requested that any revisions that impact the location of any beam be addressed in a written or marked up formation in lieu of a revised wireframe model. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE:
1) RFI is not the correct format for the Design Team to review this information. Please submit shop drawing submittal of this work to allow for a thorough submission and review of this scope of work.

2) The proposed method of future beam revisions in this RFI is not acceptable. Please provide information per Project Database Administration in Division 01 specifications and architectural drawings A-0008 and A-0009.

T-0903.1 **SSS - Location of Roof Beams for W-1 Glazing** **Closed** **12/06/2013** **12/16/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the discussion at the Structural RFI Meeting 12/5/13,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI voided. Dimensions to be reviewed and

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please provide a revised response to the following RFI:

1) The W-1 glazing system wireframe transmitted by Webcor/Obayashi locates the beams that back up the W-1 glazing system supports. At the roof level on S1-2602 to S1-2607, refer to sketches CD RFI 133 SK1 to SK6 and verify the clouded dimensions in red which locate the beams in question based on the structural wireframe model transmitted.

2) Once the beam locations in question are confirmed, it is requested that any revisions that impact the location of any beam be addressed in a written or marked up formation in lieu of a revised wireframe model. Please confirm this is acceptable.

confirmed via submittal.

T-0904 **SSS - W-1 Glazing Connection Clarifications** **Closed** **11/14/2013** **11/24/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference is made to the W-1 glazing support connection details indicated on 1 &4/S1-8001 and CD RFI 136 SK1 to SK3 in regards to the following:
1) Confirm the hole locations for the W-1 glazing "CP1" locations are acceptable as shown or supply alternate locations.
2) Confirm the holes for W-1 glazing connections are to be 1 9/16" dia.
3) Confirm the hole locations for W-1 glazing "CP2" locations are acceptable as shown or supply alternate locations.
4) Confirm the holes for the W-1 glazing connections are to be 1 9/16" dia. as indicated.
5) The 1" plate located between the beam web and the 2 ½" plate has been detailed to terminate 5" below and above the beam flanges as indicated in 7/S1-8001. This places the edge of the plate near the center of the W1 "CP2" connection bolts as shown on CD RFI 136 SK3. Please confirm this is the intent for the 1" plate at this location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Location of the holes shall be as shown in the sketch SKS 0302 enclosed.
2. See response #1.
3. See response #1
4. Confirmed.
5. The 1¿ plates are to be welded (1/2¿ double fillet weld) to the beam top and bottom flange as shown in detail 1A/S1-8001

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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T-0904.1	**SSS - W-1 Glazing Connection Clarifications**	**Closed**	**12/12/2013**	**12/22/2013**	**12/30/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

As a follow-up to Webcor/Obayashi RFI T-0904 (SK RFI 182), please see attached CD RFI 136.1 SK1 and SK2 in reference to the following:

1) T-0904 Item 5: The response references the stiffener in detail 1A/S1-8001, while the question is regarding the 1" plate wedged between the BU-Beam web and the 2 ½" thick plate per detail 7/S1-8001. The top and bottom edges of the 1" plate are close to the bolts as shown on SK2. If this is the intent, confirm items 1a and 1b on SK2:
a. Confirm the 1" edge distance is sufficient.
b. Confirm it is acceptable to notch the 1" plate with partial 1 9/16 dia. holes at 4 locations to accommodate the bolts.

2) T-0904 Item 2: The response does not clarify the requested hole diameters. Please confirm the holes are 1 9/16" diameter for "CP2" connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) No, the 5" dimension shall be changed to 1".
2) Hole diameter shall be 2 1/16" to allow 1/2" erection tolerance. Also, refer to Detail 1/S1-6097 for the center line of the bolt group.

T-0905	**BGP - Light Column Anchor Bolts Conflict with Rebar**	**Closed**	**11/15/2013**	**11/25/2013**	**11/27/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing S1-3009, S1-6008.

SCCI encountered potential conflict between anchor bolts of light column (layout depicted in 2/S1-6008) with light column rebar as shown in 1/S 1-3009. Please find attached model depicting conflict between bundles of 2 ea rebar #11@16" OC with the layout of the anchor bolt.

Please advise and provide parameters with which the rebar may be moved to clear the anchor bolts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/25/2013
RESPONSE:
In order to avoid conflict with the light column anchor bars detailed on S1-6008, the bundled #11 bars depicted in Section 1/S1-3009 may have their number take precedence over spacing. Any bundle may be moved from the typical 1¿-4¿ module by up to 11-7/8¿. The minimum clear spacing between any two adjacent bundles shall be 1-3/8¿. The maximum spacing between any two adjacent bundles shall be 23-3/4¿.
The particular arrangement of bundled bars is at the contractor¿s option per the rules described above. One potential allowable arrangement is presented in the Sketch SKS-0299 (attached).

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0906	**BGP - Omitting the Grout Port at all Applicable Column Base Plates**	**Closed**	**11/15/2013**	**11/25/2013**	**12/12/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference column base plate details on Sheet S1-5051.

SCCI proposes to permanently remove the grout ports used to grout the column base plate as shown in A/S1-5051 . SCCI believes the 2" grout holes and 3" perimeter clearance is sufficient to grout voids underneath and around the base plate and shear keys. The blockouts will be grouted from the holes and/or perimeter and the hose removed as the voids are filled up.

Please confirm it is acceptable to remove the grout port depicted in A/S1-5051, typical at applicable column base plates.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/19/2013
RESPONSE:
Contractor proposed grout procedure is acceptable, pending on the successful grout procedure mock up.

T-0907	**BGP - Haunch Reinforcement Embedment Detail in Area 9**	**Closed**	**11/15/2013**	**11/25/2013**	**11/20/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Scott Bunnell

REQUEST:

Please refer to drawing S1-3201 and attached SCCI sketch SK-RFI-383.

The haunch bars in Area 9 were fabricated to a shorter length than required. Per discussions with TT Engineer in the field, Gerdau proposes to raise the lowest point of the haunch bar 6" from the designed location. As a result, the haunch would have a 64" embedment into the mat slab and 29" minimum embedment into the foundation wall. Refer to attached sketch for further details.

Please confirm the revised haunch reinforcement detail in Area 9 as depicted in the attached sketch is acceptable .

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/18/2013
RESPONSE:
The reduction in length is acceptable for use in Area 9 with the following conditions:
1. The top of bar embedment into the wall shall comply with RFI T-0702 and T-0716.
2. The bottom of the bar shall be chaired as required above the lower mat.
3. Embedment into the mat shall conform to RFI T-0710 and T-0762.

T-0908	**BGP - Column Base Plate Shear Key Block-out DImension**	**Closed**	**11/15/2013**	**11/25/2013**	**11/20/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: City and County of San Francisco Sheryl Bregman

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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Please refe to attached detail A on sheet S1-5051.

Please confirm it is acceptable to reduce the overall 14" shear key block-out dimension to 10"; therfore, allowing for 2-inches of clearance all around the shear key as discused and coordinated during the 11/12/2013 mock-up review. See attached detail A/S1-5051 for mark-ups.

Please note the revised column base plate block-out is typical for Type I and II.

George Metzger
11/18/2013
RESPONSE:
Acceptable

T-0908.1 **BGP - Concrete Beam Top Bar Spacing and Layering** **Closed** **11/22/2013** **12/02/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3400 and RFI T-0908.

In order to clear the 10" shear key block-out as approved in RFI T-908, please confirm it is acceptable to place the additional short bars in a typical concrete beam in a second layer. Also, please confirm it is acceptable to increase the space between the top and short bars near the center of the beam to 10".

Please reference the attached photo for more details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/3/2013
RESPONSE:
- This response addresses Lower Concourse Level concrete beams framed to concrete columns with steel columns above only. Reinforcement information for these beams is provided in Sheet S1-3400.

- Where the beam has more than 6 top bars over the column, place the top bars in 2 layers. A minimum of 6 bars (long bars placed first) shall be placed in the top layer and the remaining bars shall be placed in the 2nd layer. When the concrete beam and the steel column centerlines coincide or slightly offset from each other, It is acceptable to increase the space between concrete beam top bars to 10" to clear the shear key block out.

- For beams B30, B66, B71 and B76 provide 6-#11 Right End Top LONG Bars and 6-#11 Right End Top SHORT Bars. Place short bars in second layer, with a clear distance of 1" or db, whichever is greater.

- All other conditions shall be reviewed separately.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0909	**BGP - Cast-In Place Plumbing Fixtures on Concourse Level**	**Closed**	**11/15/2013**	**11/25/2013**	**11/25/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Spencer Sayles

REQUEST:

As discussed in the 10/28/2013 ASI 104 Concourse Plumbing design meeting, this RFI is requesting confirmation that it is acceptable for the Early Below Grade Package (TG06) contractor to block out the concourse slab where plumbing fixtures are shown to be embedded in concrete.

General notes in TG06 drawing P-0005 call for sleeves only in elevated slabs in the EBGP. However, for the future main package plumber to be able to install the cast in place floor sink and floor drain fixtures, larger openings and structural details are needed. The contractor is proposing to install square blockouts sized larger than these fixtures so that they can be installed and grouted in a later date by the main package plumber. The desired benefit of this proposed logic is that concourse plumbing will be installed by one trade contractor who will provide a single source warranty for the work. Also, the later installation allows for more precise coordination of fixture rim elevations.

If this proposed sequence is not acceptable, CIP plumbing fixtures will need to be supplied and installed by the BPG (TG06) contractor. If this proposal is acceptable, please provide blockout size, rebar trim details and rebar doweling details for floor sinks and also floor drains. Sample product data for the fixtures are attached for reference and for sizing of openings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/22/2013
RESPONSE:
We confirm that installing block-outs for the floor drains and floor sinks (to be installed later) is the acceptable solution. The size of the block-outs has to be determined by the contractor, it is part of the means and methods as a temporary condition.

T-0909.1	**BGP - Cast-In Place Plumbing Fixtures on Concourse Level**	**Closed**	**12/11/2013**	**12/21/2013**	**12/19/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Spencer Sayles

REQUEST:

Reference response to RFI 909.

For floor sinks (FSK) shown cast into Lower Concourse structural slab CM/GC proposes to block out 18"x18" square centeredon center of fixture. Propose using detail 1/S-3501 for trimming rebars through this blockout (TG06 contractor). Fixture to be placed and grouted back in as

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/18/2013
RESPONSE
It structurally acceptable to blockout the Lower Concourse sinks and drains as indicated in the RFI, following Detail 1/S1-3501. Suggest blocking out concrete only and leaving reinforcing to be interrupted

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part of main package (TG-10.2) plumbing scope installation. Doweling and pourback details to be designed by TG-10.2 plumbing trade contractor.

For floor drains (FD) shown cast into Lower Concourse structural slab CM/GC proposes to block out 12"x12" square centered on center of fixture. Propose using detail 1/S-3501 for trimming rebars should they encroach into the blockout. Fixture to be placed and grouted back in as part of main package (TG-10.2) plumbing scope installation. Doweling and pourback details to be designed by TG-10.2 plumbing trade contractor.

Please confirm the above proposed scope is structurally acceptable.

un-cut until the time of fixture installation when the bars can then be cut to a close fit. This method will eliminate potential required dowels to support the grout and mitigate the number of bars required to be cut should there be small changes in the location of the fixture. Contractor shall coordinate the sizes and locations of all blockouts with the actual fixtures selected and the approved drawings for that scope of work.

T-0910 **BGP - Mechanical Couplers at Top of Partition Walls** **Closed** **11/18/2013** **11/28/2013** **12/02/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing excerpts from sheet S1-2052 and 4/S1-3205.

The typical wall section shown on S1/-2025 for the tank walls directs the reader to section 4 on S1-3205. When reviewing this section the design calls for mechanical couplers at the tops of the walls per detail 6/S1-3001. The formsaver coupler depicted within this detail is a threaded product that will not support a hooked or bent bar because the specific orientation of the hook is not possible.

Please provide direction on how to proceed.

SUGGESTION:

1. To maintain the formsaver coupler but modify the male bars with hooked ends, potentially use HRC 555 heads
2. Eliminate the coupler and use a drill and dowel method of installation for the follow on bar into the soffit
3. Modify the vertical bar from contract TG06 to extend out of the concrete with the desired hooks oriented correctly for the follow on contract work.
4. Modify the coupler type by using a formsaver style coupler that attaches the male dowel with epoxy adhesive. This would provide no extension of the bar above the TG06 contact line and provide a pre-determined layout for the follow on bars with the ability to orientate the hooks as required.

ANSWER: **Accept Suggestion:** ☐

RESPONSE: RFI T-0910 BGP - Mechanical Couplers at Top of Partition Walls

George Metzger
11/27/2013
RESPONSE:
At the tops of the water tank walls, maintain the formsaver couplers in anticipation of headed reinforcing in lieu of hooks.

T-0911 **BGP - Seismic Joint Specification Clarifications** **Closed** **11/18/2013** **11/24/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference Specification Section 07 09 16 - 2.6.A.1.

The aforemention section states, "Provide joint assemblies in single lengths between changes in direction with vulcanized, mitered comers where joint changes directions or abuts other materials."

1. Please confirm that this is in reference to the Omega Seal gasket, and not the clamping system and embedded steel.
2. Please confirm that it is acceptable to use clamping components with 4'-0" maximum lengths with butt joints not to exceed 1/8".
3. Please confirm that it is acceptable to use 14' max lengths on steel embed with butt joints not to exceed 1/8".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/25/2013
RESPONSE:

AAI Response:
1. Confirmed. The Specifications Section 07 09 16-2.6.A.1 refers to the Seal gaskets and not the clamping system and embedded steel.
2. For Clamping component lengths, contractor to coordinate with manufacturer of Double Seismic Joint Seal complete with clamping assembly.

TT Response:
3. Acceptable.

T-0912 **SSS - GFRC Drawings** **Closed** **11/18/2013** **11/28/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On the Type 2 (M) Drag connection per detail 1/S1-5017 refer to sketch CD RFI 117 SK1 for the GFRC question below. Note 4 references GFRC drawings. The connections in the clouded areas cannot be completed until the GFRC information is issued. Please supply the necessary information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"For Reference Only" see the attached "In-Progress & Draft" 3D Digital files containing geometry control information and related 2D drawings. These documents may be updated prior to issue and will be issued for construction in the future, however the CMGC can use the data to coordinate the work of adjacent trades.

T-0913 **BGP - Seismic Joint Detail Clarifications** **Closed** **11/18/2013** **11/24/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference details 7/A1-8881 (ASI #107) and 4/S1-3010 (ASI #100).

1. Detail 7/A1-8881 calls for a "neoprene gasket compressed by bar and bolt typ." Please provide sizes for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AAI Response:
1. For size of tabs and bolts for the neoprene gasket, refer to Specification Section 07 09 16 - Seismic Joint Assemblies - Below Grade Package. Fastening device types and sizes required are to be engineered to suit

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

tabs and bolts. Also, provide welding instructions (if necessary).
2. The same detail shows pipe penetrations through the seismic joint at both levels. Plumbing drawings show a 4" "SAN/ AD" running parallel to the seismic joint. Please confirm this pipe penetrates the joint. If so, provide locations off of grid and pipe sleeve dimensions. Also, provide details on how to seal this penetration (watertight).
3. Detail 4/S1-3010 shows a 3/4" dia Headed Stud at 12" oc, with 6" embed. Is this to be one row as the drawing shows?
4. Detail 4/S1-3010 also calls for 4" diameter hole at 2'-0" oc. What is the purpose of these holes? If the clamping system is continuous, then what will support the rod at the hole locations? Please clarify.

and ensure compliance with the specification. Contractor to coordinate components specified under this section, including Double SJ Seal c/w Clamping Assembly, SJ Cast-in Galv Steel Frame and Stud Assembly, and Waterproofing Assembly, which are closely integrated with materials and assemblies specified in other Specification sections and require close trade coordination to complete the overall Seismic Joint Assembly.

2. For Seismic Joint Drain locations, refer to SKA-2949. Pipe sleeves are not required around the pipe penetration. Drains to be provided with clamp frames / flanges for clamping the waterproofing system, creating a seal around the pipe penetration at the Seismic Joint.

TT Response:
3. Confirmed.

4. The holes are to ensure that concrete fills all the way up to into the curb and allows for the use of a concrete vibrator. Refer to Double Seismic Joint Seal with Clamping Assembly Manufacturer for bolt spacing. Coordinate concrete fill holes to avoid interference with bolts of the clamping system.

T-0914 **SSS - Detail Clarifications for Edge of Slab Supports** **Closed** **11/18/2013** **11/18/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference details 2, 3, 7, and 9 on S1-5001 and CD RFI 120 SK1-SK2 for the following items:
1) Details 2 & 7/S1-5001 appear to indicate the same condition, however the required deck angle supports are different. Detail 2 shows the configuration of 3/8" bent plates while Detail 7 shows a different configuration. of L6x4x5/16 angles. Please confirm it is acceptable to proceed with the deck supports per detail 7.
2) If detail 7/S1-5001 is acceptable, confirm the deck

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Detail 2 shows deck support at exterior column while Detail 7 is to show the slab reinforcement. However, for deck support, either the deck support shown on detail 7 can be used to replace the 3/8¿ angle shown on Detail 2 at contractor¿s discretion.
2) Confirmed
3) Horizontal leg to have a dimension so that the edge angle will have 1 ½¿ bearing similar to detail 8/S1-5000.Vertical leg shall be not less than 4¿.

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support angles can be held back 1" from the edge of slab.
3) If detail 2/S1-5001 is preferred, please provide additional information on the indicated members with horizontal and vertical leg dimensions.
4) Details 3 & 9/S1-5001 appear to indicate the same condition, however the required deck angle supports are different. Detail 3 shows the configuration of 3/8" bent plates while Detail 9 shows a different configuration. of L6x4x5/16 angles. Please confirm it is acceptable to proceed with the deck supports per detail 9.
5) If detail 9/S1-5001 is acceptable, confirm the deck support angles can be held back 1" from the edge of slab.
6) If detail 3/S1-5001 is preferred, please provide additional information on the indicated members with horizontal and vertical leg dimensions.

4) Confirmed
5) Confirmed
6) See response to item 3.

T-0915 **SSS - Connection Clarifications For Beam Cope** **Closed** **11/18/2013** **11/28/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At sample locations on S1-2303 along line 9 between grids D & F and refer to sketches CD RFI 118 SK1 to SK3 for items 1, 2 & 3 for beam cope clearance.
1) The 1/2" max clearance per 1/S1-5010 is not sufficient to clear the k of the W40x183. Confirm it is acceptable to increase the clearance to 1 11/16" to avoid coping the beam inside the k.
2) The 1/2" max clearance per 12/S1-5010 is not sufficient to clear the k of the W24x68. Confirm it is acceptable to increase the clearance to 15/16" to avoid coping the beam inside the k.
3) Confirm it is typically acceptable to increase the 1/2" max clearance at other similar connections on this project to avoid cutting the beams inside the k.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Acceptable.
3) Acceptable at other similar connections where 12/S1-5010 applies.

T-0916 **SSS - Clarifications for Typical Deck Support at Wet Column** **Closed** **11/18/2013** **11/28/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Refer to detail 4/S1-5001 and CD RFI 133 SK1 for the following items:
1) Per the response to bid question TG07.1-0140, a "wet" column is any column which has a vertical plumbing line running along it. Please confirm that, according to this response, any column with one or more round slab openings close to it on the Edge of Slab plans is to be detailed as a "wet" column.
2) The deck support angles are shown continuous over the beam flanges with the vertical leg of the angles pointing down, causing the vertical leg of the angle to foul the beam. Please clarify the orientation of the deck support angles for the "wet" columns per detail 4/S1-5001.
3) Please confirm the deck support angle on the column flange required only the one-sided fillet indicated or clarify additional welding requirements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Yes. However, we are not clear on the meaning of ¿detailed as a wet column¿ and why wet column will need to be detailed differently.
2. Where the vertical leg of the angle foul the beam, the vertical leg can be clip off to clear the beam flange (horizontal leg bear on the beam flange).
3. Confirmed.

T-0917 **BGP - Concrete Column T-Head Clearance from Lower Concourse Slab (Mock-Up I** **Closed** **11/18/2013** **11/18/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing detail 2/S1-3301.

Please confirm it is acceptable to have a clearance of up to 7-1/2" from the top of the concrete columns T-head to the top of lower concourse slab as discussed by TT field personnel during the mock-up review.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The maximum allowed clear distance from the top of the concrete column vertical reinforcement t-head to the top of lower concourse moment frame beam is 7-3/4".

T-0918 **SSS - Connection Clarifications for Offset Beams** **Closed** **11/18/2013** **11/18/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2503 along line 9 between grids E & F refer to sketches CD RFI 124 SK1 & SK2.

With the beam spacing per S1-2503 (SK1), there will be a 3" offset between the noted beams. The double angle

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The W21x50 beam between GL E.2 and E.6 may be moved to align with the W24x68 on other side of GL 9 as shown on SK2. However note that the location of the W24x68 beam east of GL 9 and between E.6 and F is incorrectly shown on SK2. The W24x68 beam is

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connection per S1-5010 will not work as the bolts will foul the beam web on the opposite side. We propose to relocate the beam per the proposed dimensions shown or connect these beams with shear plates per S1-5011. Please
review and advise how to proceed.

7' 6" from GL F and is aligned with the W21x50 on the west side of GL 9. Similarly, the W24x68 and W24x55 beams on the two sides of GL 9 between GL D.4 and D are aligned.

T-0919 **SSS - Beam Bottom Flange Bracing Connection** **Closed** **11/18/2013** **11/28/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to the beam bottom flange bracing connection detailed on 8/S1-5015 and CD RFI 127 SK1 & SK2 for the following items:
1) In order to support erection requirements, please confirm it is acceptable to:
a. Typically locate the bolts shown 3" from the underside of the top flange and 3" from the face of the beam web as indicated in CD RFI 127 SK2.
b. Typically locate the bolt 3" from the top of the flange indicated.
c. Typically locate the bolt outside the beam profile as shown to make the brace erectable.
2) Confirm the stitch plates should be ½" thick to match the ½" thick gusset plates at each end.
3) Please confirm that it is acceptable to provide slotted holes in the brace at the end connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) It is acceptable to typically locate bolts as shown in SK2. However, the slope of the kicker angle shall be such that the centerline of the angle should pass through the centerlines of the beam web and flange similar to that shown in 7/S1-5015 at both top and bottom ends.
2) Confirmed.
3) Slotted holes are not acceptable.
Bottom flange bracing detail 8/S1-5015 applies only at beams with the "dashed arrow" symbol (See Note 1 on 8/S1-5015). Bottom flange bracing of 2nd floor and bus deck level spandrel beams is to be provided per S1-8020 as noted on typical sheet notes on S1-2402 and S1-2502 (See Note 3).

T-0919.1 **SSS - Detail Clarification at Angle Brace** **Closed** **12/31/2013** **01/10/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The braces per detail 8/S1-5015 have been added in the model for the area between grids 1.4 to 19.9 as shown on attached SK2. Please see attached CD RFI 127.1 SK1 & SK2 for items 1 & 2:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). From the comment on T-0919, the clouded dimension shall be equal to 0.

2). Detail dimensions for the gusset plate is the responsibility of the steel detailer.

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1.) Work with SK1 & SK2 and confirm the request in the response to RFI T-0919 (SK 173 & CD 127) item 1 to have the work points for the braces located at the intersection of the top/bottom of beams on center of beams.

2.) If the response to item 1 above is yes, please supply the size of the gusset plates as the dimensioning proposed in CD RFI 127 will not work with the revised work point locations.

T-0920 **SSS - Kicker Connection Clarification** **Closed** **11/18/2013** **11/28/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to sketches CD RFI 126 SK1 to SK3 for items 1 to 4:

1) Confirm it is acceptable to locate the brace at the bevel shown to fit the steel framing in lieu of the 2:1 bevel per 5/S1-5015.
2) Confirm it is acceptable to locate the brace at the bevel shown to fit the steel framing in lieu of the 2:1 bevel per 5/S1-5015.
3) Confirm it is acceptable to increase the thickness of the full depth shear plate to 1" per 5/S1-5015 and connect the kicker brace to the full depth shear plate as shown.
4) Confirm that it is acceptable to typically apply item 3 at other similar conditions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Acceptable.
3) Acceptable.
4) Acceptable.
One general comment that is applicable to all sketches include in this RFI is that where shallower beams are supported by deeper girders. Coping the bottom flange of the shallow beam is not allowed per details 1/S1-5010 and 1/S1-5011.

T-0920.1 **SSS - Kicker Connection Clarifications** **Closed** **12/11/2013** **12/21/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to Webcor RFI T-0920 (SK RFI # 172) it was confirmed acceptable to increase the full depth shear plate from 3/8" to 1". Upon further review of this location there would be an issue where a 1" thick shear plate would

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.
3) Confirmed.
4) Confirmed.

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foul the bolts connecting the top flange of the Transfer Girder to the Cruciform column base plate.

1). Please confirm it is acceptable to center the 3/8" shear between the bolts and move the beam 5/8" south from its original location.

2). Please confirm the 1" gusset plate welded to the bottom flange of the beam can be moved off the center line of the beam to line up with the 3/8" full depth shear plate. The gusset would move 7/16" from the centerline at this location.

3). If it is acceptable to line up the gusset with the full depth shear plate, there will be a 5/8" discrepancy between the two plates. Please confirm if stitch plates with varying thicknesses can be used to make up the difference.

4). Confirm that it is acceptable to typically apply the above items at other similar conditions.

5). If any of the above suggestions will not work, please provide an alternate detail for these conditions.

5) See responses to 1) through 4). Further comments may be provided on a case by case basis during shop drawings review

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T-0920.2 **SSS - Kicker Connection Clarifications** **Closed** **12/16/2013** **12/26/2013** **01/02/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to Webcor RFI T-0920 (SK RFI # 172) clarification is required regarding the last statement where "Coping the bottom flange of the shallow beam is not allowed" and also per the response to Webcor RFI T-0934 (SK RFI # 187) clarification is required regarding the last statement where coping the bottom flange of the shallow beam shall not exceed 1" from the end of the beam.

1). Per detail 1/S1-5010 where there is a double sided beam connection, the bottom flange is required to be coped in the shallow beam in order to allow for installation of the bolts from the shallow beam side. Note the bolts

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Coping the bottom flange 4- 4 1/2" long will affect the block shear of the connection design in some cases. Contractor shall prepared the shop drawings satisfying the require tightening clearance and cloud the coped area requesting approval by the Engineer on a case by case basis.

2) Confirmed.

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cannot be torqued if erected from the other side and would also foul the shallow bottom beam flange in question. On the attached sketches CD RFI # 126.1 SK1 to SK4 show some typical sample conditions illustrating the clearance required. The beam flange cope lengths required will range from 4" long in most cases to 4 1/2" at larger web thicknesses. Please verify the shallow bottom beam flanges can be coped for bolt clearance and erection of the beams as noted on SK2 to SK4.

2). Per detail 9/S1-5010 where the WT on the top of the beam flange is required to extend to the end of the beam please verify the beam flange can be coped back to the "k1" of the beam in order to get full bearing and weld for the WT and to clear bolts as noted on SK2.

T-0921 **SSS - Detail Clarifications For Edge of Slab Supports** **Closed** **11/18/2013** **11/28/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per details 8 & 10/S1-5001, refer to sketches CD RFI 121 SK1 for items 1 & 2:

1) Confirm the noted area indicates that the concrete slab is not required and the edge plates may be terminated as shown.
2) Confirm the noted area indicates that the concrete slab is not required and the edge plates may be terminated as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The noted area does require concrete slab. Note that this detail is for the slab reinforcement at an edge column condition and the detail note references to ¿see typical slab edge details for additional information¿. Refer to detail 2/S1-5001 for additional info regarding edge of deck at exterior columns.

The noted corner area does require concrete slab. Note that this detail is for slab reinforcement at a corner column condition and the detail note references to ¿see typical slab edge details for additional information¿. Refer to detail 3/S1-5001 for additional info regarding edge of deck at exterior corner columns.

T-0922 **SSS - W-1 Support Connection Clarifications at Bus Deck** **Closed** **11/18/2013** **11/28/2013** **12/12/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Refer to CK RFI 125 SK1, SK2A, SK2B, SK3, and SK4 requesting clarification at the Bus Deck level on the following:
1) Confirm the noted connection should be a moment connection.
2) At the noted location, two supports for CP5 connections are required adjacent to Grid 9. Based on the CP5 detail requirements, a 1 ¼" horizontal stiffener should span from shear plate to shear plate per 1B/S1-8003; however, because these two connection points span the same beam, the horizontal stiffener would foul the incoming beam to shear plate connection, as there is a horizontal stiffener welded on both sides of the shear plate. Please provide a solution for this condition.
3) Confirm the vertical spacing of the 1 ¼" horizontal stiffeners is acceptable to accommodate the connection bolts on the incoming beams.
4) In the beam connection shown in detail 1/S1-8003, the required shear plate will foul the 2" web reinforcement plate required per 1/S1-5017. Please confirm the shear plate is to be welded to the 2" web reinforcement plate with a ½"double fillet weld per 1/S1-8003 or provide an alternate connection detail.
5) A CJP weld is required at the flange connections shown on CD RFI 125 SK2A and SK2B; however, the indicated flanges are out of alignment per the dimensions shown. Please advise on the welding or connection requirements at this condition.
6) Confirm the noted 1" stiffener plate per 1/S1-8003 may be welded to the 2" web reinforcement plate as shown in SK2A and SK3.
7) Due to the placement of the 1/14" horizontal stiffener plates and required ½" fillet weld, the bolts for the beam connections will not be erectable. Please confirm it is acceptable to clip the horizontal stiffener plates as shown to accommodate the erection bolts or supply an alternate solution.
8) Confirm it is acceptable to cut the 1 ¼" horizontal stiffener plates as shown to avoid fouling the 2" web reinforcement plate or supply an alternate solution.
9) Confirm the hole locations for the W-1 glazing system per 1/S1-8003 are acceptable as shown or supply alternate locations.
10) Confirm 1 9/16" dia. holes are acceptable or provide alternate hole size.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Yes, the connections shall be a moment connection as shown on Detail 1/S1-8003 and as denoted on the plans.
2. The horizontal plates shown on 1B/S1-8003 are eliminated (see ASI 109).
3. See response to item 2)
4. Is this question related to the vertical shear plate? If so, Confirmed that the shear plate may be welded to the 2" web reinforcement plate with 1/2" double fillet weld as shown.
5. 3/4" partial pen weld at the bottom flange called out may be replaced by a partial penetration weld with an 3/4" fillet weld overlay built-up.
6. Confirmed.
7. Confirmed.
8. Confirmed.
9. See ASI 109 for bolt hole dimensions.
10. Use 2 1/16" holes for 1 ½" bolts to allow for ½" field tolerance.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0922.1	SSS - W-1 Connection Clarifications	Open	01/17/2014	01/27/2014		Potentially	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

This is a follow-up RFI to RFI T-0922 (SK 171 CD 125)
See attached CD RFI # 125.1 SK1 to SK4 for items 1 to 3:

1.) The 2" stiffener per 1/S1-8003 (ASI 109) and the beam connection shear plate foul each other as shown. Confirm it is acceptable to offset the 2" stiffener as required and use it as the shear plate for the beam connection. If not, supply an alte rnate solution.

2.) Please supply missing dimensions.

3.) The noted dimensions per 1/S1-8003 in ASI 109 (SK4) will result in the bottom holes fouling the beam flange. Please issue revised hole locations to suit the beam sizes.

See attached CD RFI # 125.2 SK1 to SK3 for item #4:

4.) The RFI T-0922 item 5 instruction to supply a PJP weld with a 3/4" fillet weld on top as shown is not possible as there
is only 9/16" of material remaining on top as shown. A PJP weld requires a 0" gap which is not possible as there is no erection clearance. Please supply an alternate weld.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0922.2	SSS - W-1 Connection Clarifications	Closed	01/17/2014	01/27/2014	01/21/2014	Potentially	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

This is a follow-up RFI to RFI T-0922 item 5 (SK 171 CD 125)

See attached CD RFI # 125.2 SK1 to SK3:

The RFI T-0922 item 5 instruction to supply a PJP weld with a 3/4" fillet weld on top as shown is not possible as there is only 9/16" of material remaining on top as shown.

Also, a PJP weld requires a 0" gap and this is not

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Combined with RFI T-0922.1

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

possible as there is no erection clearance.
Please supply an alternate weld.

T-0923 **SSS - W-1 Glazing System CP6 Connections** **Closed** **11/19/2013** **11/29/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 128 SK1 through SK4 in response to the following regarding the W-1 glazing system connection "CP6" at the bus deck level:
1) The indicated CP6 connections foul the beam connections as indicated in SK3A and SK3B. Please provide a solution to this condition.
2) Confirm the holes for the "CP6" connections may be typically located as shown in SK4 along Grids B & H.
3) Confirm the connection holes for "CP6" are 1 9/16" diameter or provide the required hole diameter.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The double stiffeners (1" thick) shown on 4/S1-8003 will be revised to single 1 ½" thick stiffener (centered to the W1 support). If the connection for the beam supporting crash rail posts fouls the stiffener and kicker for W1 support, adjust the beam supporting the crash rail post slightly (less than 3") so it is in line with the W1 support. In this case, the kicker is no longer needed.

2. The center line of the bolt shall be 2'- 0 1/8" from the top of the beam (2'-0 ¼" shown on SK4). The vertical spacing of the bolt shall be 10 ½"(10" shown on SK4) and the horizontal spacing of the bolt shall be 5 ½"(4 1/2" shown on SK4).

3. Confirmed that 1 9/16"dia. hole is fine for 1" bolt to allow for field tolerance.

T-0923.1 **SSS - Dimension Clarification for W-1 Glazing** **Closed** **01/06/2014** **01/16/2014** **01/14/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 128.1 SK1 & SK2:

RFI T-0923 SK4 was submitted with the center of "CP6" down 2'-0 1/4 from the top of steel. The 2'-0 1/4 dimension was taken from the Rhino model. The response to RFI T-0923 item 2 has changed the 2'-0 1/4 dimension to 2'-0 1/8.
1) Confirm the 2'-0 1/4 dimension from the Rhino model is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Per RFI T-0923 the center line of the bolt shall be 2¿- 0 1/4¿ from the top of the beam.

2. The Rhino model is the geometry control for the W-1 elements as defined in the Contract Documents.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

correct.
2) Confirm the locations for all connections for the W-1 glazing system on the Bus Level may be taken from the Rhino model.

T-0924 **BGP - Column Stirrups and Ties at Top of Concourse (Mock-Up Review)** **Closed** **11/19/2013** **11/19/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3304, 3305 and 5051.

Please confirm that it is acceptable to install the top column stirrups and tie at 12.5" from the top of concrete at concourse level for the concrete columns with anchor base plates.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/22/2013
RESPONSE:
Installing all column stirrups and tie starting at 12.5" from the top of concrete is not acceptable. It is acceptable to eliminate/lower the column ties that interfere with the key blockout. Note that proposed 12.5" would not be sufficient to clear column stirrups/ties from the key blockout at some locations (Base Plate Types 1B and 1C in Sheet S1-5051, base plates embedded within the concrete).

T-0925 **BGP - Moment Frame Beam Top Tie 180-degree Hook (Mock-Up Review)** **Closed** **11/19/2013** **11/29/2013** **11/22/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing 2/S1-3600.

In order to clear the additional top bars in the top layer of moment frame beam, Gerdau proposes change one end the moment frame beam top tie hook from 135° to 180°. The opposite end of the tie will remain as a 90° hook.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/22/2013
RESPONSE:
Confirmed that it is acceptable to change lower concourse beam top tie 135 degree hook to a 180 degree hook.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0926	**BGP - Anchor Bolt Conflict with Column Reinforcement**	**Closed**	**11/19/2013**	**11/29/2013**	**12/02/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3300 and attached SCCI sketch SK-RFI390

SCCI has located a potential conflicts with the column rebar and the column anchor bolts as depicted in the attached sketch. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/27/2013
RESPONSE:
The conflicts between the column ties and anchor bolts indicated in the RFI can be resolved with modifications to column ties as outlined in Sketch SKS-0300.

T-0927	**BGP - Injection Hose Testing Criteria**	**Closed**	**11/21/2013**	**12/01/2013**	**12/04/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Scott Bunnell

REQUEST:

Please reference attached Grace/DeNeefTechuical Letter, Submittal TG0600-0025, and Spec Section 03 15 00, 3.4, A.

Spec Section 03 15 00, 3.4, A states, "After concrete has cured for a minimum of 30 days, test the integrity of the entire hose system by compressed air. Ensure that a positive pressure can be maintained for at least 5 minutes."

Page 14 of the "Applicator Manual" included in Submittal TG0600-0025 states that "each section of INJECTO should be pressure tested with water to a minimum pressure of I 00 psi, to insure migration of water through the entire joint. If excessive water leakage out of joint is observed, this may indicate the presence of honeycombs or voids and should be noted on job report..."

In addition, the attached Grace/DeNeef Technical Letter also notes that the INJECTO should be tested with water (not air).
.
Please confirm that it is acceptable to test the integrity of the INJECTO hoses with water as required by the manufacturer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/29/2013
RESPONSE:
Air is specified, rather than water because the injection hose is flanked with hydrophilic water stops. If the hose leaks, it will activate the water stops and the leaks in the hose will go undetected.

Contractor shall use air to test the hoses as specified.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0927.1	**BGP - Injection Hose Testing Criteria**	**Closed**	**01/06/2014**	**01/16/2014**	**01/21/2014**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference attached Grace/DeneefTechnical Letter and RFI #T-0927 response.

RFI T-0927 response states that "contractor shall use air to test hoses as specified," but the specifications call out several different types of injection hoses. Although, air testing may be suitable for other products specified, Grace/Deneef requires water testing for the INJECTO Tube system. The attached technical letter from Grace/Deneef states that "INJECTO is an open system, and any air pumped in will begin to flow immediately through the 35 micron filter and polypropylene mesh out into the concrete."

Please review and confirm that water testing is acceptable for the Deneef INJECTO Tube system on the TTC project.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/17/2014
RESPONSE:
H&B does not disagree with deNeef that air will flow into the concrete. We also assume that water will also flow as readily into the concrete as air. What is the water test intended to demonstrate? The requirement in the specifications was in response to a Webcor comment during the design phase on the system and specification.

The reason air was specified, rather than water is that the injection hose is flanked with hydrophilic water stops. If the hose leaks, it will activate the water stops and the leaks in the hose will go undetected.

T-0928	**RFI T-0928 SSS - Detail Clarification at Cast Node Connections**	**Closed**	**11/22/2013**	**12/02/2013**	**12/04/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please reference the cast node connection details 2/S1-4354 and 2/S1-4355 shown on CD RFI 131 SK1 and verify the following.
1) Confirm the indicated 4'-0" radius is acceptable or provide alternate dimension.
2) Confirm the indicated 4'-0" radius is acceptable or provide alternate dimension.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) 4 ft radius is confirmed.

2) Radius = 2 ft

T-0929	**SSS - Connection Clarification at Edge of Slab GL 11**	**Closed**	**11/22/2013**	**12/02/2013**	**12/06/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to S1-2403 for locations near grids D.11 and F.11 indicated on CD RFI 135 SK1. As detailed in CD RFI 135 SK2, the L5x5 connection angles required per detail 1/S1-5010 will extend beyond the edge of slab by 3/16". Please

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Shift the W21x50 beams so that they are 6" from edge of slab and the connection angle legs are inside the edge of slab.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

confirm this is acceptable or provide an alternate detail for this condition.

T-0930 **SSS - Scope Confirmation at Stairs** **Closed** **11/22/2013** **12/02/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to TG07.1R-0041, "the scope of work for stair posts, landing framing, stringers, and checkered plate tread and riser will be included in a future bid package." In accordance with TG07.1R-0041, please confirm this response applies to the entirety of the TG07.1R scope including, but not limited to, drawings S1-7001 through S1-7016.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The referenced response to TG07.1R-0041 applies to details 1,3,4,5,6,8, & 10 on S1-7601. This response applies to other drawings, including S1-7001 through S1-7016, to the extent that those details are referenced.

Reference Exhibit A Section IV.C.1.e and Section IV.C.2.e for clarification on stair support framing included per contract.

T-0931 **SSS - Connection Clarifications at Isolation Bearings** **Closed** **11/22/2013** **12/02/2013** **11/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to the isolation bearing details on S1-5021 and CD RFI 138 SK1 & SK2 attached for the following items:
1) Please provide dimensions required to located bolts.
2) Confirm the cap plate may be welded as indicated in the attached sketch.
3) Please provide dimensions required to located bolts.
4) Please provide dimensions required to located bolts.
5) Please provide dimensions required to located bolts.
6) Please provide dimensions required to located bolts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Align the bottom bolts with top bolts.
2) Acceptable.
3) Locate bolts per workable gauges provided for wide flange beams in AISC 360-05. Top and bottom bolts shall be aligned to each other.
4) Provide a 3" offset between the bolts and the centerline of the rubber bearing.
5) Provide a 3" offset between the bolts and the centerline of the rubber bearing.
6) Provide a 3" offset between the bolts and the centerline of the rubber bearing.

T-0931.1 **SSS -Connection Clarifications at Isolation Bearings** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to the isolation bearing details on SK1 & SK2 attached for the following items:
1) Please provide the bolt pattern & size connecting the isolation bearings to the W12x65 & W8x31.
2) Please provide the bolt pattern & size connecting the isolation bearings to the 3" steel plate & C15x40.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0932 **SSS - Detail Clarification at Hanger Support** **Closed** **11/22/2013** **12/02/2013** **11/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to S1-2503 near grid 9.9/C and CD RFI 139 SK1 & SK2 which indicate that the W12x65 hanger support beam fouls the skewed W40x327. This same condition occurs at Grid 9.9/G.

Please confirm it is acceptable to trim the bottom flange of the W12x65 beam to maintain a ½" gap between the beam flanges.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the contractor's proposal of trimming the bottom flange of W12x65 is acceptable

---

T-0933 **SSS - Slab Opening Discrepancy at F.5** **Closed** **11/22/2013** **12/02/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The slab opening near grid F.5 indicated on drawings S1-2302 and 2/S1-7101 (SK1 & SK2) does not match the location indicated on drawing A1-2862 (SK3). Please clarify the correct slab opening location and provide dimensions to locate the slab opening and perimeter steel.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Slab opening on S1-2302 and 2/S1-7101 will be updated to match the slab opening per A1-2862 in the Concrete IFB Addendum #1 drawings that will be issued soon.

T-0934 **SSS - Beam Connection Clarifications** **Closed** **11/22/2013** **12/02/2013** **12/06/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

SUGGESTION:

ANSWER:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please refer sketches CD RFI 141 SK1 to SK7 for beam to beam connection clarifications required per items 1 to 4 below:

1) On S1-2505 between grids 1.4 & 2, the required (9) bolts per 1/S1-5010 will not fit in the W33 due to the size of the supporting BU beam. Confirm (8) bolts as shown are acceptable or supply an alternate solution. See SK1 & SK2.
2) On S1-2505 near grids 24.9/E, the required (9) bolts per 1/S1-5010 will not fit in the W33 due to the size of the supporting BU beam. Confirm (8) bolts as shown are acceptable or supply an alternate solution. See SK3 & SK4.
3) On S1-2507 near grids 33.2/E, the required (10) bolts per 1/S1-5010 will not fit in the W36 due to the size of the supporting BU beam. Confirm (8) bolts as shown are acceptable or supply an alternate solution. See SK5 & SK6.
4) On S1-2403 at grids 8/D.8, the required (8) bolts per 1/S1-5010 will not fit in the W30 due to the size of the supporting BU beam. Confirm (7) bolts as shown are acceptable or supply an alternate solution. See SK7.

Accept Suggestion: ☐

1) Acceptable.
2) Acceptable.
3) Acceptable.
4) Acceptable.
One general comment that applies to all sketches included in this RFI is that where shallower beams are supported by deeper girders, coping the bottom flange of the shallow beam shall not exceed 1" from the end of the beam.

T-0935 **BGP - Lower Concourse Typical Moment Frame Beam Dimensions** **Closed** **11/22/2013** **12/02/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-2204 and S1-2205.

Plan sheets S1-2204 and S1-2205 show 8 Moment Frame Beams (MFB) from GL 14 to GL 20.1 designated as typical. There are no section views of these beams which show the dimensions, as the other MFB have.

Please provide both the Width and Depth of the typical MFB in the lower concourse level.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/22/2013
RESPONSE:
Typical lower concourse moment frame beam details are in Sheet 1/S1-3600. Corresponding cross-section detail is in Detail 2 of the same sheet. Beam width and depth info are provided in the cross-section detail.

T-0936 **SSS - HSS Hanger Connection Clarification** **Closed** **11/22/2013** **12/02/2013** **12/04/2013** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to S1-2403 (CD SK1) which indicates the edge detail between grids 8 & 9.9 is to be constructed with an L5x5x3/8 angle per 9/S1-5000. Please confirm it is acceptable to extend the W24x68 beam to the edge of slab, eliminate the L5x5x3/8, and connect the HSS 5" hanger to the W24x68 similar to the detail shown on 1/S1-5020 or provide an alternate detail for this connection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Not acceptable. Provide the edge of slab support detail per 9/S1-5000 except:
1) Weld the gusset plates to the HSS column
2) Stop the 3/8" bent plate short at the HSS column face. The 3/16" field weld at the bent plate edge is not required
3) Coordinate with RFI T-0901 for information missing on 9/S1-5000
Note that the back span kicker angle is not required at posts or columns as noted on 9/S1-5000.

T-0937 **SSS - SMRF Flared End Connection** **Closed** **11/22/2013** **12/02/2013** **12/02/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to the SMRF flared end connections detailed in CD RFI 144 SK1 to SK5 and clarify the following:

Detail 9/S1-4202 indicates that the flared beam flange is to be the same width as the column flange while detail 5/S14202 does not match this detail and indicates a narrower flared beam flange. Please confirm that the beam flange width is as noted on the elevation drawings and the flange width shall increase at the flared ends to match the column width per detail 9/S1-4202.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the beam flange width is as shown in elevation drawings. Flared beam flange is 6" wider (3" flare on each side) than the beam flange width shown on elevation drawings. Therefore, depending on the location, flared beam flange width is either equal to the column flange width or smaller.

T-0938 **BGP - One-Way Slab Shrinkage and Temperature (S&T) Bars at Columns** **Closed** **11/22/2013** **12/02/2013** **11/25/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Webcor Construction LP Jackson Tukuafu **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3500

In order to alleviate congestion in a condition where columns cross lower concourse support beams, please confirm that it is acceptable to eliminate the top and bottom shrinkage and temperature bars for the one-way

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RESPONSE: RFI T-0938 BGP - One Way Slab Shrinkage and Temperature Bars

George Metzger
11/25/2013
RESPONSE:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

slabs up to 12" from the face of support column.

Contractor's proposal to eliminate the one-way slab temperature & shrinkage bars adjacent to the moment frame beams (up to 12" from the face of the beam) is acceptable.

T-0939 **SSS - Connection Clarifications at Moment Beams** **Closed** **11/25/2013** **12/05/2013** **12/06/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 132 SK1 to SK4 requiring clarification on the moment beam to beam connections per the following.

1) At the location indicated on CD RFI 132 SK1, the continuity plate will foul the bolts if (8) are provided per 1/S15010. Please confirm it is acceptable to provide (6) bolts in the W30x99 as shown on CD RFI 132 SK2.
2) Confirm the continuity plate detailed on CD RFI 132 SK2 is correct as shown with tf and bf per W24x68.
3) Please confirm it is acceptable to provide one continuity plate with a slot 1/8" larger than the beam web and the 3 ½" beam cope as indicated on CD RFI 132 SK2 to allow for a continuous CJP weld of the continuity plate.
4) At the location indicated on CD RFI 132 SK1, the continuity plate will foul the bolts if (11) are provided per 1/S1-5010. Please confirm it is acceptable to provide (8) bolts in the W40x277 as shown on CD RFI 132 SK3.
5) Confirm the continuity plate detailed on CD RFI 132 SK3 is correct as shown with tf and bf per W30x99.
6) Please confirm it is acceptable to provide one continuity plate with a slot 1/8" larger than the beam web and the 3 ½" beam cope as indicated on CD RFI 132 SK3 to allow for a continuous CJP weld of the continuity plate.
7) At the location indicated on CD RFI 132 SK1, the continuity plate will foul the bolts if (9) are provided per 1/S15010. Please confirm it is acceptable to provide (8) bolts in the W33x118 as shown on CD RFI 132 SK4.
8) Please confirm it is acceptable to provide one continuity plate with a slot 1/8" larger than the beam web and the 3 ½" beam cope as indicated on CD RFI 132 SK4 to allow for a continuous CJP weld of the continuity plate.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Confirmed.
3) Confirmed.
4) Acceptable.
5) Confirmed.
6) Confirmed.
7) Acceptable.
8) It is acceptable to use a single plate with a slot, however, coping of the beam bottom flange is not allowed at this (or similar) location(s) since there is bottom flange bracing (see 6/S1-5015). It is acceptable to locally cope the beam web for the slotted continuity plate.
9) Confirmed.
10) It is acceptable to apply solutions provided in 1 through 9 at similar locations at Bus Deck Level along GLs 9.9, 10.1, 19.9 and 20.1 only. For all other locations submit a separate RFI for each case.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

9) Confirm the continuity plate detailed on CD RFI 132 SK4 is correct as shown with tf and bf per W30x99.
10) Confirm the response to items 1 to 9 may be typically applied at other similar conditions/locations or provide a typical solution for the condition where the required continuity plate extends into the double angle connection of a deeper beam.

T-0939.1 **SSS - Connection Clarifications at Moment Beams** **Closed** **12/19/2013** **12/29/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
At beam to beam moment connections as noted in RFI # T-0939 and other similar locations please confirm if the continuity plate is required when the nominal depth of the beam shown as dimension "X" is 3" or less as per CD RFI 132.1 SK1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Confirmed that the continuity plate is required as shown on Detail 4G/S1-5010.

T-0940 **SSS - Shear Plate Dimension** **Closed** **11/25/2013** **12/05/2013** **11/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
Please confirm that the dimension indicated on CD RFI 130 SK1 at the Type 1 Drag Connection per detail 1/S1-5016 is to be taken from the Thornton Tomasetti Tekla Model.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
No, the distance in question as shown on CD RFI 130 SK1 is to be determined based on the contract document Detail 1/S1-5016 (not based on the TEKLA model). The first row of bolt is to be 6 1/2' min (1 1/2" MIN+1" + 4") from the bottom of the connection pad as detailed.
The contactor shall also note that the cast node work point was incorrectly shown on RFI 130 SK1. It shall be at the same elevation as the center of the beam.

T-0941 **SSS - Beam Connection Details** **Closed** **11/25/2013** **11/25/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Skanska USA Civil West California DisRyan Clayton

REQUEST:

On S1-
2604 near grids 16/E (near grid 25 sim.) at the Penthouse column base connections refer to sketches CD RFI 146A SK1 & SK2 for items 1a & 1b noted below.

1a) The noted beams connect to the supporting beam with double angles per S1-
5010 but they will not be erectable due to the stiffeners per 11/S1-7630
(SK2). Confirm it is acceptable to use a pulled-
out full depth shear plate per 4/S1-5013 at each end.

1b) Similar conditions occur on S1-
2606 about grid 25. Confirm the solution in item 1a may b
e applied at other similar conditions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1a) Confirmed.
1b) Solution in item 1a will be reviewed on a case by case basis. For other similar conditions submit a separate RFI for each case.

T-0942 **SSS - Shaw Alley Bridge Connections** **Closed** **11/25/2013** **12/05/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

On S1-
2403 at the Shaw Alley Bridge refer to sketches CD RFI 1
04 SK1 to SK4 for items 1 to 6:
1) Confirm the horizontal long slots in detail 5/S1-
5013 apply only at this connection.
2) Confirm the closure plate may be welded as shown in li
eu of the requested butt weld.
3) Confirm the closure plate may be welded as shown in li
eu of the requested butt weld.
4) Confirm the weld is a PJP weld.
5) Confirm this CJP weld may be welded as shown.
6) Confirm the detail on SK2B is acceptable for 5/S1-
2403 Plan A.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.
3) Confirmed.
4) Confirmed the weld is a PJP weld. Root opening and bevel angle at PJP are to be based on the weld procedure used, which is yet to be submitted.
5) The root opening and bevel angle at the CJP weld does not appear to be AISC prequalified. Specify prequalified CJP welds per Table 8-2, AISC 360-05.Contractor to submit information on welding procedures before information highlighted in 4) and 5) can be confirmed.
6) Confirmed

T-0943 **SSS - Light Column Base Details** **Closed** **11/25/2013** **12/05/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

Webcor/Obayashi Joint Venture

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REQUEST:

1. Please supply the material manufacture(s) for the "SEAL RING" a catalog cut or other information. Additionally, please supply the specifications for the material, size necessary to fit specified tube and other information necessary to install the seal rings.

2. Please provide weld size and weld process indicated on the attached sketch.

3. Please provide omitted dimensions for "CAVITY TUBE" requested on the attached sketch

4. Please confirm that welding the WELDED STEEL TUBE to the SOLID ROUND ANCHOR PLATE is acceptable and the alteration of the A722 plate by the welding process is acceptable.

5. Please confirm missing dimension for anchor bolt projection. Note on 4/S1-6008 states "END OF ANCHOR BAR LEFT AFTER TRIMMING MUST BE LONG ENOUGH TO ALLOW RE-TENSIONING LATER". Skanska will provide projection of ½ coupler length to attached stressing rod at future date. Please confirm compatibility with TJPA's stressing system used later may be different than Contractor's stressing system.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Seal ring is to stop grout from entering steel tube as well as to limit spread of corrosion protection. This requires a rubber O-ring or possibly just denso tape to seal the gap. Additionally, please add a second seal ring between the PE-Tube and the shrinkable tube, to also inhibit the spread of corrosion protection.

2. These are non-structural welds. Min. fillet size is all that is required.
2e. Please note that there should be no weld here. The plastic PE-Tube cannot be welded to the steel cavity tube.

3. Dimension has been added, see marked-up sketch.

4. Only the threadbar is Grade 150 ASTM A722 Type II. Anchor plate and steel tube are ASTM A572 Gr. 50. Steel tube should be welded to anchor plate prior to installation, so no welding is done near threadbar.

5. Min. length above nut to be determined by contractor based on his means and methods of pre-tensioning. Final length of threaded rod above nut must be long enough to allow re-tensioning at a later date, which must equal thread length of jack used + elongation of threadbar.

Additional comments:
- Please delete bitumen tape at end of shrinkable tube from shop drawings. Bitumen tape must be applied at end of PE-Tube.

T-0944	SSS - Beam Connection Clarification at Edge of Slab	Closed	11/25/2013	12/05/2013	12/04/2013	Potentially ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 169 SK1 and SK2 showing beam connections into slab openings near grid 11/C on S1-2403.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Solution in item 1 will be reviewed on a case by case basis. For other similar conditions submit a separate RFI for each case.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1) The double angle connection required per S1-5010 will extend past the edge of slab as shown on CD RFI 169 SK2. Please confirm it is acceptable to replace these connections with shear plate connections per S1-5011 or provide an alternate solution.

2) Confirm it is typically acceptable to replace the double angle connections with shear plate connections when the double angles extend past the edge of slab.

Note that for beams that are perpendicular to the slab edge (for example W21x44 beams that support the W12x14 beams on SK1), the distance between the beam end and slab edge should not exceed 1 1/2" typically.

T-0945 **SSS - Connection Clarification at Slab Edge** **Closed** **11/25/2013** **12/05/2013** **12/06/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to S1-2403 near grid 9/E for slab edge support connections as indicated on CD RFI 170 SK1 and SK2. The backup kicker brace detailed on 9/S1-5000 will fit in condition # 1 as indicated, but it will not fit in conditions #2 and #3 due to the limited difference in beam depth.

Please confirm it is acceptable to omit the kicker braces at conditions #2 and #3 or provide an alternate detail for these conditions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) For condition #2, provide back-up brace per 6/S1-5015 except:
a) Use 1/2" plate, instead of 1¿ plate shown on 6/S1-5015.
b) Weld size for double sided fillet weld is 5/16¿ instead of ¾¿ shown in 6/S1-5015.

2) For condition #3 provide a back-up brace per SKS-0290 submitted with response to RFI T-0824 except:
a) Provide a 1'-0¿ long WT 4x10.5 CJP welded to the bottom as shown on SKS-0290.
b) Double sided 3/16" fillet weld between the WT stem and bottom flange of the W21 beam .

T-0946 **Dimension Clarification at Edge of Slab** **Closed** **11/25/2013** **12/05/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 172 SK1 & SK2 regarding the following question along grid lines C & G on Level 2 at the edge of slab. The dimension indicated in CD RFI 172 SK1 is shown as 7" or 8" on S1-2402, S1-2403, and S1-2404

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

while detail 1/S15032 shows this as a 6" dimension.

Please confirm the 7" and 8" dimensions currently modeled based on the plan drawings are to be used and the 6" dimension in detail 1/S1-5032 does not apply at specified locations.

T-0947 **SSS - Continuity Plate Foul at Column Web** **Closed** **11/25/2013** **12/05/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to grids 11/D and 11/F on B/S1-4106 at Level 2 as indicated on CD RFI 173 SK 1 & SK2. The continuity plate required per 4/S1-5012 will foul the WT in the column web at the location indicated on CD RFI 173 SK2.

Please confirm it is acceptable to supply (2) continuity plates, one on each side of the stem of the WT, or provide an alternate detail for this condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At the two locations indicated in the RFI (GL 11/D and 11/F), it is acceptable to provide a single continuity plate placed between the WT and beam bottom flange. Plate to be provided near side and far side (both sides of the column web) and detailed per 5/S1-4202.

T-0948 **SSS - Connection Clarifications at Beams to Transfer Girder** **Closed** **11/25/2013** **12/05/2013** **12/06/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 at grids 11/C @ beams to transfer girder refer to sketch CD RFI 178 SK1:
The bolts thru the column cap plate & Transfer Girder per 4/S1-5052 are fouling the 3" connection plate as shown.
Please supply a solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The conflict between the base plate bolts and the perpendicular drag beam plate at GL11/C can be resolved per modifications outlined in Sketch SKS-0306.

T-0949 **SSS - Stair ST304 Framing and Connection Clarifications** **Closed** **11/25/2013** **12/05/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

SUGGESTION:

ANSWER:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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For Stair ST304 refer to sketches CD RFI 179 SK to SK6 for items 1 to 6:
1) The noted beam flange extends into the slab opening for ST304 by 1/2" as shown. Confirm this is acceptable or supply revised dimensions on 1/S1-7008 or A1-2863.

2) This stair post is currently located 1 1/2" from the edge of slab. This does not agree with typical connection detail 1/S1-7600 which shows the stair post extending past the edge of slab 1/2" max. Please confirm this is the intent and supply a new connection detail for the post to the slab or supply revised dimensions for the stair post locations in detail 1/S1-7008 or the slab opening location on drawing A1-2863 to conform to detail 1/S1-7600.

3) Similar to item 2 on SK3. Please clarify.

4) The noted beam extends into the slab opening for ST304 by 2 1/2" as shown. Confirm this is acceptable or supply revised dimensions.

5) Please supply a connection detail for the noted stair post as 1/S1-7600 does not apply and 10/S1-7600 will not work as the BU WT will only partially fit on the TR11 flange.

6) Confirm detail 10/S1-7600 may be applied at the noted location to connect the stair post to the supporting beam.

Accept Suggestion: ☐

1) Beam locations and slab opening have been changed in ASI 109 and Concrete IFB Addendum #1 drawings. Beam flange does not extend beyond slab edge.
2) Edge of opening and stair post locations have changed. See updated ASI 109 drawings and SKS-0312 submitted with response to RFI T-0955.
3) See response to 2).
4) See response to 1).
5) See response to 2).
6) See response to 2). Detail 1/S1-7600 shall apply.

T-0950 **SSS - Stair & Elevator Connection Clarifications** **Closed** **11/25/2013** **12/05/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

For typical stair & elevator connections refer to sketches CD RFI 180 SK1 to SK3 for items 1 to 5:

1) Confirm this connection may be applied as shown on SK2B (item 2).

2) Confirm connection as shown is acceptable. All not shown is per 2/S1-7600).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable. See 2) for additional notes.
2) It is acceptable to typically locate bolts as shown in SK2B. However, the centerline of the kicker angle should pass through the centerlines of the beam web and flange.
3) Acceptable.The work point of the brace shall intersect the center of the L5 x 3x3/8.
4) Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3) Confirm it is acceptable to substitute the L3x3 angle with L5x3 angle. The connection with the L3x3x3/8 angle is not possible as the brace angles will foul the horizontal legs as shown.

4) Confirm the same dimensions may be used when detail 2D/S1-7600 occurs.

5) Confirm this is the correct interpretation of the weld for the angles to the HSS beam.

5) Confirmed.

T-0951 **SSS - Knock-Out Slab Clarification** **Closed** **11/25/2013** **12/05/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 there is a detail 7/S1-5004 shown near grids F/11 to supply bent plate to support the permanent slab. This is a general bent plate detail for the knock-out areas and does not provide enough detail at the stepped Transfer Girder. Please see the following questions below:

1) Please verify if bent plate is required parallel to the Transfer Girder along grid 11 to support the permanent slab at the knockout areas? If yes, will new beams be needed to support the bent plate and slab? Please provide size and location if new beams are needed at these areas. See RFI 185 SK1 & SK2.

2) Please verify step in slab from grid D to F along grid line 11 will incase the Transfer Girder? Will headed studs be required at the transfer Girder web? If so, please provide size and spacing. See RFI 185 SK1 & SK2.

3) Please verify it is the designs intent to have the edge of the knock-out slab extend past the edge of the Transfer Girder flange at grid line 10.1? If yes, please provide details to support the edge of the permanent slab at these locations. See RFI 185 SK1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The low permanent slab and new supporting beams are not required.

2) Step in slab does not need to encase the transfer girder. The top slab stops at the step and is supported by edge of slab detail similar to 9/S1-5000 (See attached sketch SKS-0315). There will be architectural wall between the high and low slabs as shown in the sketch.

3) The edge of knock-out slab is 1' - 9" away from GL 10. With a 36" wide flange of the transfer girder, the edge of knock-out slab is 21- 36/2 = 3" outside of the flange edge. The small overhang of the slab is to be supported per detail 8/S1-5000.

4) Bent plate and edge of slab detail per 8 or 9/S1-5000 shall apply not only at the members highlighted in yellow but also at portion of the W21x50 beams below the escalator pits. Coordinate with response to RFI T-0868.1.

5) See response to 4). Coordinate with response to RFI T-0868.1.

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4) Please confirm only steel highlighted in yellow will require bent plate to support the permanent slab? See RFI 185 SK1.

5). Please clarify if any slab support is required for the knock-out slab at the edge of the escalator pit as shown on detail 6/S17660, referenced from the escalator plan on 1/S1-7302? Should the knock-out slab be separated in some way from the curb/wall of the escalator pit? See RFI 185 SK1.

T-0952 **BGP - Use of historical concrete strength test results** **Closed** **11/27/2013** **12/07/2013** **12/05/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Further to discussion with Thornton Tomasetti field personnel.

WOJV is asking for the remainder of the Mat slab pour, that the requirements per specification Section 31 55 00 1.4J may be deemed satisfied after 14 days to start removing the level D bracing based on historical data of the 284 concrete strength test results completed to date.

Please confirm if this would be acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/4/2013
RESPONSE:
The RFI does not stand as written.
The historical mat slab break data is sufficient only to waive the specification requirement that the TJPA Representative review and approve strength test results prior to removal of bracing (Section 31 55 00 1.4J). It is permissible that Webcor-Obayashi review the 14 day results to determine early brace removal provided they establish and submit acceptance criteria. SEOR is awaiting documentation of the procedure and acceptance criteria, which may take the form of an RFI. Language for this RFI has already been discussed with WO and TCCO.

T-0953 **SSS - Pin & Pipe Connections at Bus Deck Level** **Closed** **12/02/2013** **12/12/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Do not modify the pin connection. Move the beams

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2505 at grids 21 & 22 refer to sketches CD RFI 149 SK1 t o SK5 for items 1 to 3:

1) The plates for the pin connection per 5/S1-5017 foul the beam connections. See SK5 and confirm it is acceptable to modify the pin location as shown to avoid fouling the beam connections.
2) The pipe with connections per 5/S1-5017 at both ends will not be erectable without cutting the flanges on the beam stubs. Confirm it is acceptable to cut the bottom flanges as shown on SK5 or supply an alternate solution.
3) The pipe with connections per 5/S1-5017 at both ends will not be erectable without cutting the flanges on the beam stubs. Confirm it is acceptable to cut the bottom flanges as shown on SK5 or supply an alternate solution.

away the pin connection slightly to clear the pin connection.
2) Do not cut the beam bottom flange. The erection issue can be resolved by field welding the bottom flange to beam web as noted in the detail.
3) See response to item 2)

T-0954 **SSS - Beam Connections at Skewed BU Girders** **Closed** **12/02/2013** **12/12/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2506 @ line 26 at the skewed BU girder connections refer to sketches CD RFI 176 SK1 & SK2:

1) The double angle connection per S1-5010 for the noted (3) beams will foul the connection per detail 4/S1-5017 as shown. Confirm it is acceptable to connect the noted (3) beams to the 2" plate in detail 4/S1-5017 using shear plates per S1-5011 or supply an alternate detail.
2) The double angle connection per S1-5010 for the noted beam will foul the vertical stiffener per detail 4/S1-5017. Confirm it is acceptable to connect the noted beam using a shear plate per S1-5011 or supply an alternate detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A single shear plate (Type 4) drag connection as shown in SKS-0313 shall be provided in lieu of the Type 2 (R) pin connections at the two locations (Total 4 connections) to resolve the issues highlighted in the RFI.

T-0955 **SSS - Stair Post HSS Interference** **Closed** **12/02/2013** **12/12/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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On detail 1/S1-7008 at grids 11/C at the Stair post refer to sketches CD RFI 175 SK1 & SK2.
The HSS6x6 stair post fouls the BU column as shown.
Please advise.

The HSS 6x6 stair post has been moved in ASI 109 drawings so that it does not foul the BU Column.
Dimensions to locate HSS columns around Stair 304 have been noted on the attached sketch SKS-0312

T-0955.1 **SSS - Slab Opening Clarification** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

This is a follow-up RFI to RFI T-0955 (SK 224 CD 175)
See attached CD RFI # 175.1 SK1 & SK2:
The post locations have been revised with the revised locations provided in RFI T-0955 SKS-0312 (SK 224 CD 175).
Confirm the slab opening as shown on A1-2863 (SK2) remains unchanged.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0956 **SSS - Connections at Escalator Areas** **Closed** **12/02/2013** **12/12/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-
7303 at the escalator areas refer to sketches CD RFI 177 SK1 & SK8 for items 1 to 6:
1) The elevation of the low beams cannot be determined as the information for the low slab is not shown on A1-2893 (SK2). Please supply the elevation for the low beam as shown on SK3, SK4, SK5 & SK7
2) Confirm the WT on top of the low W18x35 is required at (4) locations as shown.
3) Supply dimension.
4) Supply dimension.
5) Confirm the edge plate is to extend up to the top of low slab.
6) Supply a connection detail as 1/S1-
7604 (SK7) does not represent the actual condition.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) See updated drawings submitted with ASI 109. The W18x35 low beam has been changed to a W30x90 beam. T/steel of the W30x90 beam is flush with the bottom of the shim plate per Detail 5/S1-7661. Provide a 1/2" thick shim plate at the locations highlighted in the RFI.
2) Confirmed. See updated drawings submitted with ASI 109.
3) See architectural edge of slab drawings for location and dimension of curbs.
4) See architectural edge of slab drawings for slab step locations and step dimension.
5) Confirmed.
6) Cope the W30x90 beam at the top and provide connection per 1/S1-7604 with 4 bolts.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0957	SSS - Column Flange Plate Thickness Clarification	Closed	12/03/2013	12/13/2013	12/09/2013	Potentially	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference the sample location indicated on A/S1-4102 (CD RFI 186 SK1) and confirm the thicker flange plates of the bottom column are intended to extend to the column splice locations as noted. Please also confirm this is typical at other similar locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, the thicker flanges of the column below are intended to extend to the column splice locations above the Bus Deck Level. We confirm that this is typical at other similar locations.

T-0958	SSS - Beam Elevations and Locations at Escalator	Closed	12/03/2013	12/13/2013	12/19/2013	Potentially	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the escalator area at the ground level near grids 10/1/E, refer to sketches CD RFI 188 SK1 to SK3 for the following items

1) Per S1-2303 on Sk1, verify the two noted beam elevations (-0'-1 ½") should read (+0'-1 9/16") to match the underside of the escalator support slab.
2) Reference S1-7302 and A1-2863 on SK2 & SK3 and verify the escalator opening locations should be 2'-7 ¾" from grid line E, not 3'-0 5/8" as indicated on S1-7302. Note these dimensions set the beam locations 8 ¾" from the openings shown on S1-2303.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed. The T/steel of the W21x50 beams should be 19'- 1 5/8".
2) Confirmed. Highlighted dimension should read 2' - 7 3/4". See updated drawings submitted with ASI 109.

T-0959	SSS - Column Continuity Plate Requirements	Closed	12/03/2013	12/13/2013	12/19/2013	Potentially	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2603 at grid 11/D, refer to sketches CD RFI 189 SK1 to SK3 requesting clarification on the column continuity plate requirements per the following:

1) Detail 5/S1-4202 requires the continuity plate thickness be equal to or greater than the beam flange. Please confirm that the W40x593 beams (replaced with BU plates with 3 ¼" flanges) require 3 ¼" continuity plates per this detail.
2) Due to the continuity plate thickness and double weld

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Continuity plate per 5/S1-4202 is not required at the highlighted location. Provide 1/2" thick horizontal stiffeners plates at the top on each side of the column web. Provide a CJP weld to column flange and web. Provide a three sided double fillet weld "S" = 5/16" at the bottom horizontal stiffener plate as shown on 3/S1-5013.
2) Acceptable.
3) Confirmed.

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preps, please verify the revised corner access hole sizes indicated on SK3 of 2 ½" and 2 ¾" are acceptable.
3) Please confirm the proposed weld indicated on SK3 for the continuity plate is acceptable.

T-0960 **SSS - Cast Node Weight and Center of Gravity** **Closed** **12/03/2013** **12/03/2013** **12/04/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

As per drawing S-0007 Note SS-8 Skanska is preparing our erection procedures. In order to accurately incorporate the cast nodes into our calculations please provide the latest weight and center of gravity (in x, y, z) for each of the cast nodes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CCX response complete - see attached file.

T-0961 **SSS - Slab Opening Locations at Roof Park Level** **Closed** **12/04/2013** **12/14/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference A1-2902 and A1-2903 and provide the slab opening locations for the following items:

1) Provide the missing dimension for the slab opening size as indicated on SK1.
2) Confirm the dimensions noted on SK2 located the west side of the two slab openings.
3) Supply the dimension to locate the north edge of slab opening from grid D.8 as indicated in SK2.
4) Supply the dimension to locate the south edge of slab opening from grid E.6 as indicated in SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AAI response as follows:

1. Refer to attached sketch SKA-2971 for requested dimension.

2. Confirmed

3. Refer to attached sketch SKA-2972 for requested dimension.

4. Refer to attached sketch SKA-2972 for requested dimension.

T-0962 **SSS - Slab Opening Locations at Ground Level** **Closed** **12/04/2013** **12/14/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Skanska USA Civil West California DisRyan Clayton

REQUEST:

Refer to A1-2862 and CD RFI 195 SK3 which indicate a slab opening which is not shown on S1-2302 and 3/S1-7004.

Please review SK1 through SK3 attached and clarify the slab opening requirement at the location indicated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Slab opening at ground level per A1-2862 has been added on S1-2302 and S1-7004 in the ASI 109 drawings.

T-0963 **SSS - Edge of Slab Clarifications at Second Level** **Closed** **12/04/2013** **12/14/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

Reference CD RFI 196 SK1 to SK3 for edge of slab clarifications required at the second level near grid 11.E as follows:

1) The blue dimensions indicated on SK1 are per A1-2883. Please confirm these dimensions are to be used to locate the steel and edge plates on S1-2403.
2) The blue dimensions indicated on SK2 are per A1-2883. Please confirm these dimensions are to be used to locate the steel and edge plates on 2/S1-7302.
3) Please clarify the dimension discrepancy between A1-2883 and S1-7302 as indicated on SK2.
4) Please clarify the dimension discrepancy between A1-2883 and S1-7302 as indicated on SK2.
5) Confirm the built-up walls are 9" thick as indicated on CD RFI 196 SK2.
6) Confirm the green lines indicated on SK3 represent the edge of slab on S1-2403.
7) Confirm the purple lines indicated on SK3 represent the edge of slab on 2/S1-7302.
8) The adjustment indicated on SK3 and A1-2883 is not shown on S1-2403. Please confirm the dimensions indicated on A1-2883 are correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.
3) Edge of slab dimension shown on A1-2883 is correct.
4) Edge of slab dimension shown on A1-2883 is correct.
5) The thickness of the built-up wall is determined by the location of the beam relative to the step at these escalator pits. Consider detail 2/S1-7661 that applies at the W21x50 beams north of GL D.4 that are supported by a W36x150 beam on GL 11. The only exception to this detail at these pits is that the lower WT is not required as the lower slabs are supported by beams below. In detail 2/S1-7661 the wall thickness is equal to the distance between the slab step and beam web face.
6) Confirmed.
7) Confirmed.
8) Confirmed.

T-0964 **SSS - Elevator PE202 Dimension Clarifications** **Closed** **12/04/2013** **12/14/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

For elevator PE202, refer to sketches CD RFI 198 SK1 to SK3 for the following items:

1) Confirm the noted dimension should read 4'-8 ½" to match A1-2862 as indicated on SK1 in order to have the elevator posts align with the edge of slab.
2) Confirm the noted dimension should read 8'- 2 ½" to match A1-2862.
3) Confirm the noted dimension should read 3'-7" to match A1-2862 to have the elevator posts align with the edge of slab.
4) Confirm the slab opening is per A1-2882 and the elevator posts align with the edge of slab.
5) Confirm the noted dimension should read 8'-6 ½" to mat A1-2892.
6) Confirm the noted dimension should read 4'-8 ½" to match A1-2892 to have the elevator posts align with edge of slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.
3) Confirmed.
4) Confirmed.
5) Confirmed.
6) Confirmed.

T-0965 **SSS - Elevator SE401 Dimension Clarifications** **Closed** **12/04/2013** **12/14/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference CD RFI 200 SK1 which indicates that the slab opening dimensions required to locate elevator SE401 on 1/S1-7113 do not agree with A1-2864. Please confirm the dimensions shown on A1-2864 are correct and the SE401 elevator posts align with the edge of slab.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, the dimensions shown on A1-2864 are correct and the SE401 elevator posts align with the edge of slab.

T-0966 **SSS - Cruciform Column Splice** **Closed** **12/04/2013** **12/14/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At multiple cruciform column locations (S1-4301 thru S1-4308 at Grids C & G), detail 2/S1-4350 has a 24" wide column flange flaring out to 36" flange at the connection to the cast node & transfer girder. It is the preference of the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to use CJP spliced flange plates in the exterior MF Columns (Gridlines C, G, C.3, F.7) at Ground Level, however, the splice plane shall be a minimum of 2dc (dc = MF column depth) away from

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fabricator to utilize a CJP spliced flange plate where the flare (radius) starts. Please confirm this is acceptable.

the top of the cast node. Note that MF column flange width is not always 24", refer to elevations S1-4101 through S1-4116 for MF column sizes. Splices shall conform with the requirements of 1/S1-5050.

T-0967 **Procedure for the removal of the level D bracing** **Closed** **12/05/2013** **12/15/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Procedure for the removal of the level D bracing:

Webcor-Obayashi will review the 14 day compressive strength reports issued by the independent test lab (ISI) for the applicable pour area. In the review WOJV is to ensure that the "lower-bound" concrete strength exceeds 3000psi at 14 days. "Lower-bound" will be understood as the mean minus one standard deviation. If the calculated lower-bound strength <3000 psi, the bracing removal would not continue until results are received satisfying the lower bound criteria. Further, If any single compressive strength test is < 2500 psi, the bracing removal would not continue until results are received satisfying the minimum strength criteria.

Please confirm if this would be acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/6/2013
RESPONSE:
Confirmed

T-0968 **SSS - Light Column Cast Node Weld Prep** **Closed** **12/06/2013** **12/16/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Following discussions on the light column cast node weld prep, please confirm approval for use of joint B-U4a-GF in the flat position as a shop weld and that this joint is not prohibited under clause 2.18 - Prohibited Joints and Welds.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As per AWS D1.1, clause 2.17, flat position V-groove or U-groove welds are practicable.

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T-0969	**SSS - Filler Metal Usage on Group IV Grade HPS70W Material**	**Closed**	**12/06/2013**	**12/16/2013**	**12/20/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

Observation: Job specifications and Code AWS D1.1, Table 3.1, matching strength filler metal combinations for Group IV material, specifies for use an E91XTX for FCAW and F9XX for SAW process(s).

Concern: ASTM A709GR 70W material hardening during welding (alloying up) as each weld layer is deposited (in 2" to 4" material thickness). An increased hardness value is expected and the actual concern is that, in this instance, the E91XX specified will create an overmatching filler metal condition during the welding process.

Review: The AWS D1.1 2008 edition in table 3.1 for ASTM A709 Grade HPS70W specified a minimum of 70 ksi Yield Point and 90-110 ksi Tensile Range. In comparison, the AWS D1.1 2010 edition, a revision was made on this same material and the Tensile Range was dropped to 85 ksi minimum and maximum to remain at 110 (85-110).

Research: Currently for seismic application, the filler metal companies have seismic testing certificates for E81XX and F8XX electrodes. The Tensile test range for AWS D1.8 requirements is 80ksi minimum, but the manufacturers' test results consistently come in at 88 to 95 ksi, which would meet the 85-110 ksi range for the material. The two manufacturers contacted, ESAB and Lincoln, are willing to do seismic testing (test data) for the purpose of supplying AWS D1.8 seismic certificates to meet the E91XX requirements. However, when reviewing the current test data from the manufacturer, the test tensile range is 90-110 ksi, but the results are 97-110 ksi.

Conclusion: TMF and their welding consultants believe that starting with a near Minimum Tension ksi (under match in classification/specification) that allows the use of E81TXX or F8XX electrodes with current seismic certificates would be best for the welding of the A709 HPS70W material due to the 2-4" thickness in this application.

Please confirm this proposal is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed under match the base material and filler metal is not acceptable. The AWS electrode specification A5.29 for FCAW doesn't change, so the electrode classification as noted by the D1-code committee (E9xxx) shall stay. The contractors supplier is welcome to certify-by-test their electrode E8 as a E9 and provide the documentation as-such and submit it for approval.

T-0970	**SSS - Pretensioned Rods at Moment Columns**	**Closed**	**12/09/2013**	**12/19/2013**	**12/19/2013**	**Potentially**	☐

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Gregory Kemerer
Co-Author: Skanska USA Civil West California Dis Ryan Clayton
To: Turner Construction Compan Gary Krutsch
Answered By: Adamson Associates, Inc George Metzger

REQUEST:

Please refer to drawing S1-5052 and S1-5050.

Refer to attached sketches CD RFI 099 SK1 & SK2 for items noted below.

3) To allow sufficient clearance to position a hydraulic tensioning device we require a dimension of 30"h instead of the 24"h indicated on 3/S1-5050, please confirm this is acceptable.

5) Confirm Section C shows the 3" thick plate only.

6) Confirm the 2 1/2" thick bearing plate is shaped as shown.

7) Confirm the 2 1/2" thick plate is welded on 3 sides as shown. Supply the welding requirement for the 2 1/2" thick plate to the WT below if required.

10) To allow sufficient clearance to position a hydraulic tensioning device we require a dimension of 30"h instead of the 24"h indicated on 3/S1-5050, please confirm this is acceptable.

12) Provide the weld requirements for the 4" plate to the column web.

13) Confirm it is acceptable to increase the 12"h dimension shown on 3/S1-5050 to 18"h to allow for the installation of the coupler below the built up TT only

14) Confirm it is acceptable to provide 8x8x2"h plate washers to allow sufficient base for the hydraulic tension device.

15) 1-3/4"h dia rods are required to be tensioned to 200kip at two locations. We are unable to find a tensioning system to achieve 200kip. The max capacity for a device used on 1-3/4"h rod is 172kip. We request to use 2-1/2"h dia rods at these two locations.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

3.) Please consider the option of pre-tensioning from the bottom. This item may be discussed further in next structural issues conference call.
5.) Confirmed.
6.) Confirmed.
7.) Confirmed. No welding required to WT, direct bearing. WT surface shall be milled as called out in the detail.
10.) See our comment to RFI Question #3.
12.) No welding required.
13.) Confirmed. Note that the coupler should clear the base plate by a minimum of 1-1/2 inches.
14.) It is acceptable to use larger washers at Contractor's option.
15.) Use of 2-1/2" dia rods is acceptable at the Contractor's option, pretension shall be kept the same. Note that there are some steel rod vendors that can provide larger jacking force for 1-3/4 diameter rods. One example is Dywidag, which shows a jacking force of up to 330 kips in their catalogue for 1-3/4¿ diameter rods.

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30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0970.1	SSS - Pretensioned Rods at Moment Columns	Open	01/16/2014	01/26/2014		Potentially	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Following the response to RFI T-0970 and after further review of #3 & 10, we agree the rods can be pretensioned from the bottom. Candraft have run a sanity check at several locations to confirm there is adequate clearance for the tensioning device and will continue to do so as other locations are detailed. Any interference will be addressed in future RFIs.

Please confirm it is acceptable to use a standard flat washer in lieu of the plate washer as the holes are not oversized and this will also allow
for easier workability during the pretensioning operation fr om the bottom (see Dyson catalog cut attached).
If this is acceptable the 24" dimension indicated from bottom continuity plate to top of built up T & TT (on 3/S1-5050) and the 6x6x2" plate washer under the top nut will not require to be changed (as per #3, 10 &14 RFI T-0970).

Please confirm this proposal is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0971	SSS - Column Side Plates Dimension Increase	Closed	12/09/2013	12/09/2013	12/11/2013	Potentially	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

Please refer to drawing S1-2203 and S1-5050.

On S1-2203 at grids 9/C refer to sketches CD RFI 161 SK1 & SK2 regarding anchor bolts at column side plates. For the column side plates per detail 4/S1-5050 and anchor bolts it is not possible to insert the nuts & plate washers for the
anchor bolts with the 3'-0" side plate dimension.

Confirm it is acceptable to increase the noted dimension to 3'-5" or supply an alternate solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The detail referred in the RFI (4/S1-5050) is for column W14X730-SP, which is constructed using a rolled W14X730 as a base and welding side plates on it. However, the decision was that the below grade steel columns will be constructed using plates (built-up shapes), they won't be rolled shapes. Equivalent built up shapes for all rolled shape column types shown on Lower Concourse Plans are provided in Detail 6/S1-5050. These equivalent built up shapes do not require the side plates shown in Detail 4/S1-5050.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0972	SSS - Stair Post Base Detail at GL 11/D	Closed	12/09/2013	12/09/2013	12/26/2013	Potentially	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Arup Rich Coffin

REQUEST:

On S1-2303 near grids 11/D at the Stair post base refer to sketches CD RFI 174 SK1 & SK2 for items 1 & 2:

1) Skanska (Candraft) have reviewed the Architectural & Structural drawings and have been unable to verify the offset dimension of the built up WT from the center of the W27x84. The built up WT is shown on SK2 as per the revit model,
please confirm this is correct or provide the required dimensions.

2) If the location is correct confirm it is acceptable to shop weld the BU WT to the supported beam and field weld the remaining piece to the supported beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The built-up WT is centered on the post. The stair post and beam location have changed in ASI 109. Coordinate with ASI 109 drawings and sketch SKS-0312 submitted with response to RFI T-0955. Detail 10/S1-7600 shall apply even if the post lands on two beams.
2) Confirmed.

T-0973 **SSS - Transfer Girder Kicker Brace Connection** **Closed** **12/09/2013** **12/19/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Arup Rich Coffin

REQUEST:

For the angle brace connection per detail 5/S1-5015 see sketches CD RFI 061 SK1 & SK2 for items noted below.

1) For the Transfer Girder bottom flange bracing connection, confirm if bracing is required when the dimension from the bottom flange of the framing member to the top of the transfer girder bottom flange is less than 1'-3". See SK2 grid line 3/D.4 as an example.

If bracing is required please provide typical details.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, bracing is required at all locations specified on plan. Provide bracing per 6/S1-5015 at all transfer girder brace locations where the distance between the bottom flange of the beam and the top of the transfer girder flange is less than 1' - 3".

T-0974 **SSS - Pin Details in Drawing 1/S1-5017** **Closed** **12/09/2013** **12/19/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

For Drag connections per detail 1/S1-5017 refer to sketches CD RFI 123 SK1 & SK2 for the following items noted:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT's response (the original RFI does not use #2, the responses are in the same order as the original RFI):

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1) Confirm the size of the hole required thru the beam web, web stiffeners and shear plates is the diameter of pin +1/32". Confirm if any additional tolerance is allowed for hot dipped galvanized pins.
3) Confirm flanges can be cut flush to the beam web. Note that the flanges need to be cut flush only to the web stiffeners for erection access purposes.
4) Confirm if a radius is required when cutting the flange flush to the beam. If required confirm a radius of 1-1/2" is acceptable.
5) On RFI T-0737 Skanska requested to provide a cotter pin to further secure the nuts from backing off. Please confirm it is acceptable to provide one nut with the cotter pin as detailed on SK2.
6) Confirm the material grade for the pins and nuts is A668 Class M.
7) Confirm all pins and nuts are to be hot dipped galvanized.

Tolerance shall be 1/32" per Specification 05 10 00, paragraph 3.2.B.2.

It is contractor's option to either cut the flange flush with beam web or flush with the web reinforcement plate for erection purpose.

Confirmed.

2 nuts shall be provided as detailed in the contract documents.

Confirmed.

Confirmed.

T-0975 **SSS - Vertical Clearances at Tapered Girder Kicker Connections in S1-5015** **Closed** **12/09/2013** **12/19/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

Please refer to drawing 4/S1-5015, S1-2602

Please refer to sketch CD RFI # 071 SK1 - SK3 for items 1 & 2:
1) As shown, 11-3/8" is the minimum vertical clearance required to provide the kicker brace connection per 4/S1-5015. Please confirm criteria as shown is acceptable.

2) Per item 1 on CD RFI 071 SK1, detail 4/S1-5015 cannot be applied in the noted case on SK3 and other similar cases when the vertical clearance is less than 11-3/8".

Please confirm if bracing is required at these locations, if so supply a typical alternate detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Providing a 3' clear distance between the gusset plate shown on SK-1 may be reduced to 1", hence the minimum clearance (11 3/8") required to provide the kicker brace per 4/S1-5015 may be reduced further.

2) Brace is required. The vertical clearance shown on SK3 corresponding to the location shown on SK2 is not correctly determined. The tapered girder is much deeper (about 54" deep) at the brace location shown on SK2. Note that the tapered girder depth increases from 40" at the ends to 60" at the mid span per S1-4200.

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-0976	**SSS - Transfer Girder Kicker Connection Conflicts**	**Closed**	**12/09/2013**	**12/19/2013**	**12/26/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

Please refer to drawing 5/S1-5015.

For the Transfer Girder angle connections see sketches CD RFI 063 SK1 to SK4 for items 1, 2, 3 & 4 noted below.

1) The kicker angle fouls the vertical stiffener, this is typical at similar locations. We propose notching the leg of the fouling angle and using a two bolt connection in lieu of welding or provide a typical solution.
2) Due to welding access issues we propose to use a two bolt connection, typical at similar locations. Confirm this is acceptable.
3) The kicker fouls the stiffener and the kicker gusset is too close to the stiffener for welding access. Similar conditions occur at other locations on the Ground Level. Please provide a typical solution.
4) The kicker gusset fouls the stiffener plate. Similar conditions occur at other locations on the Ground Level. Confirm it is acceptable to use the stiffener as the kicker gusset and increase the gusset thickness at the other end to
match or provide an alternative detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) It is acceptable to typically notch the leg of the fouling angle and provide (2)- 1 1/2" A490X bolts to connect the kicker angle to the bottom gusset plate at the location highlighted in the RFI on SK3 and at other similar locations. Provide a spacing of 3" between the bolts and a bolt edge distance of 2.5". The bolts shall be centered on the kicker angle legs.
2) Submittal shall address all access issues for field welding. It is acceptable to typically provide (2)- 1 1/2" A490X bolts to connect the kicker angle to the bottom gusset plate at the location highlighted in the RFI on SK3 and at similar locations where weld access is not possible. Bolt apacing and edge distance shall meet the requirements in AISC. The bolts shall be in line with the centroid of the kicker angles.
3) Shift the beam to the south so that the same solution in 4) could be applied.
4) Confirmed.

T-0977	**SSS - Handling Holes at Basket Column Pins**	**Closed**	**12/09/2013**	**12/19/2013**	**12/19/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The clevis pins for basket columns detailed on S1-5133 do not provide means to safely handle the material during manufacturing, coating, and field assembly. To aid in these processes, please advise if it is acceptable to drill and tap 1-8 x 2" deep in the center of the pins at both ends.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please submit a detailed drawing(s) of your proposal to allow us to evaluate the question. The written description is not adequate for us to evaluate the question.

T-0977.1	**SSS - Handling Holes at Basket Column Pins**	**Closed**	**12/30/2013**	**01/09/2014**	**01/02/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

The clevis pins for basket columns detailed on S1-5133 do not provide means to safely handle the material during manufacturing, coating, and field assembly. To aid in these processes, please advise if it is acceptable to drill and tap 1-8 x 2" deep in the center of the pins at both ends.

As requested in the response to RFI T-0977, please see the sketch attached for the proposed handling holes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed handling hole in pin is acceptable.

T-0978 **SSS - Clevis Pin Material at Roof and Bus Deck** **Open** **12/09/2013** **12/09/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference drawing S-0007, General Note SS-2, which requires that all clevis pins meet ASTM A668 Class M. Oregon Iron Works is requesting approval to supply these pins from round bar AISI 4340 NQ&T (normalized, quenched, and tempered), produced to ASTM A434 grade BD. Please confirm if this is an acceptable material for clevis pins at the following locations:
1. Roof Level pins for type 71 and 72 castings shown on sheets S1-5131, S1-5132, S1-5133.
2. Bus Deck pins detailed on S1-5017 Detail 1 for Type 2M connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0979 **SSS - Curved Connection Detail at Light Column** **Closed** **12/09/2013** **12/09/2013** **12/11/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2305 at grids 23/E, refer to sketch CD RFI 103 SK1 and supply a detail showing how to splice the curved W27x84 beams.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The curve beams are to be connected together with a single shear plate connection (see 1/S1-5011).

T-0979.1 **SSS - Curved Connection Detail at Light Column** **Open** **01/17/2014** **01/27/2014** **Potentially** ☐

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

The response to WOJV RFI T-0979 indicated that the curved W27x84 beams shown on S1-2305 at grid 23/E are to be connected together with a single shear plate connection per 1/S1-5011.

The referenced detail shows a beam to beam "T" connection, rather than two rolled shapes butting up to each other. Please clarify how the connection shown on 1/S1-5011 is to be applied to curved beam connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-0980 **SSS - BU Girders Connection Clarifications at Ground Level** **Closed** **12/09/2013** **12/19/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

The W40x503 beams along grids C & G on the Ground Level have been substituted with BU beams per RFI # T-0704.1. This changes the flange copes in details 3 & 7/S1-4350. Please refer to attached CD RFI 162 SK1 & SK2 for the following items:

1) Please confirm it is acceptable to extend the web plate above the BU beam and cut the top flange plate flush to the web plate as shown. Confirm the CJP weld indicated is acceptable to weld the top flange to the web plate. The web to flange fillet welds per RFI T-0704.1 will be applied beyond the shown CJP welds.

2) Confirm it is acceptable to stop the bottom flange plate of the BU WT short as shown, extend the web plate of the BU WT to the web plate of the BU beam and weld as shown. The web to flange fillet welds per RFI # T- 0704.1 will be applied beyond the shown CJP welds.

3) Confirm it is acceptable to have a continuous 4" vertical bolt spacing in lieu of the pattern interruption as shown in detail 3/S1-4350 to avoid cutting the bottom flange of the BU beam. This may mean that the holes for the 1 1/2" dia. bolts near the WT to BU beam web weld will have to be drilled after the weld is made.

4) Confirm it is acceptable to have a continuous 4" vertical

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed. Weld joint detail will be reviewed during shop drawings stage after the weld procedure has been submitted and approved.

2) Confirmed. Weld joint detail will be reviewed during shop drawings stage after the weld procedure has been submitted and approved.

3) Confirmed.

4) Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

bolt spacing in lieu of the pattern interruption as shown in detail 7/S1-4350 to avoid the bolts fouling the web to flange fillet welds. This may mean that the holes for the 1 1/2" dia. bolts near the WT to BU beam web weld will have to be drilled after the weld is made.

T-0981 **SSS - Cast Node Erection and Fabrication Work Points** **Closed** **12/09/2013** **12/19/2013** **12/13/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

It is requested that work points be added to the Cast Connex machine drawings and Bradken Cast Nodes as outlined on the marked up Cast Node drawings attached. These external "physical" work points will be used to reestablish the "non-physical" internal work points set during the pre-machining of Cast Nodes at Bradken. These external work points will be used to aid the following construction activities:
1) Shop fabrication of shear plates and pipe columns
2) Shop trial assembly and QC dimensional inspections
3) Field assembly and final QC dimensional inspections

Please confirm each work point will be precision punch marked and highlighted with paint marker for easy identification.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor needs to liaise with Bradken to determine if they are willing and able to punch these marks on the castings, and what (if any) the cost and schedule impact would be. If Bradken can complete the work, then Cast Connex is willing and able to update the machining drawings (at Skanska¿s cost). The cost for Bradken¿s additional work will have to be taken care of between Skanska and Bradken and not the TJPA.

T-0982 **SSS - Elevator Rail Support Connection Clarifications** **Closed** **12/09/2013** **12/19/2013** **01/10/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to Elevator Rail Support drawings S1-7130 through S1-7139 and provide clarification on the following:
1) At locations where the HSS members span two equally sized support beams, please confirm connection detail 1/S1-7630 typically applies and the HSS member is to be located direction under the beams. Refer to SK1, SK2, SK5, SK6, and SK7 for reference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached comments on RFI sketches, RFI_T_0982 sketches w comment.pdf

1. See TT comments on RFI sketches.
2. When HSS is to connected to bottom of W beam use detail 1/S1-7630. At the end where HSS is framed into the web of a beam, provide a double angle

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2) At locations where the lower HSS member spans two unequally sized beams, it is assumed that the HSS member will connect to the shallower beam per detail 1/S1-7630. Please confirm and provide a typical connection detail for the HSS member to the deeper beam. Reference SK1, SK2, SK5, SK6 for reference.
3) Confirm the HSS beams indicated on SK1, SK2, and SK7 are located flush with the top of slab per 1/S1-7630.
4) Confirm the plates indicated on SK3 & SK4 may be cut as shown on details 1&4/S1-7630 to achieve an effective weld along the full length.
5) Provide a connection detail for the HSS 12x6 to the W21, W24, and W36 beams at the locations indicated on SK7.
6) Provide the elevation of the lower HSS 12x6 indicated on SK RFI 239 SK2 and the connection details required at each end.
7) Confirm the elevation of the W21s indicated on SK5.
8) Provide a connection detail for upper and lower HSS12x6 to HSS12x6 at locations with no floor slab on SK5.
9) Provide a connection detail for upper and lower HSS12x6 to W16 at locations with no floor slab on SK5.
10) Provide a connection detail for HSS12x6 at the W21 indicated on SK5 where there is no edge plate as shown on detail 1//S1-7130.

connection with 3- 1" dia A325 bolts (with pipe spacer inside the HSS). Alternatively, a welded connection similar to 1/S1-7630 may be used.
3. See TT comments on RFI sketches.
4. Confirmed.
5. See TT comments on RFI sketches.
6. See TT comments on RFI sketches.
7. See TT comments on RFI sketches.
8. See TT comments on RFI sketches.
9. See TT comment on RFI sketches.
10. See TT comment on RFI sketches

T-0983 **SSS - ST201 and PE201 Anchor Bolt Clarifications** **Closed** **12/09/2013** **12/19/2013** **12/27/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 203 SK1 to SK3 requesting clarification on Stair ST201 and Elevator PE201 per the following:

1) Refer to detail 4/S1-7605 and CD RFI 203 SK1 indicating the ½" dimension between the washers and the HSS column. When considering the 5/16" fillet weld at this location, there is only 3/16" clear between the plate washers and the HSS column, which is not sufficient to allow for anchor bolt as-built variations to suit the 13/16" dia. oversize holes. Please confirm it is acceptable to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Confirmed.
3) See 4/S1-7605 and attached sketch SKS-0322 for anchor bolt detail at W14x311 columns.
4) Confirmed.
5) Confirmed.
6) Confirmed.
7) Confirmed.
8) Confirmed.
9) Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

increase the 2" typ. dimension indicated to 2 ½".
2) It is not clear what is meant by "SIM." Please confirm detail 4/S1-7605 may be applied at all HSS columns at Stair 201/Elevator PE201.
3) Please provide an anchor bolt detail for the noted two WF columns.
4) Confirm the underside grout elevation is 23.42'.
5) Confirm the underside grout elevation is 24.08' (3 locations).
6) Confirm the underside grout elevation is 22.42' (4 locations).
7) Confirm the underside grout elevation is 22.92'.
8) Confirm the underside grout elevation is 22.42'.
9) Confirm the underside grout elevation is 22.92'.
10) Provide the underside grout elevation at the location indicated.

10) Underside of grout elevation is 22.42'.

T-0984 **SSS - W33 Connection at GL 11** **Closed** **12/09/2013** **12/19/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 there are two W33x118 beams between grids D.8/E.2 that connect to the stepped Transfer Girder along grid line 11. These connections should be typical double angle shear connections, but due to the location of the stiffeners for the Moment frame column cap/base plate there is a fouling issue. Please see the following questions

below:
1) Please verify a partial full depth shear plate connection similar to detail 2/S1-5011 can be provided at these locations in lieu of the double angle shear connections. The shear plate cannot be full depth as it will foul the bolts connecting the Transfer Girder bottom flange to the column cap/base plate. See CD RFI 204 SK1 to SK3.
2) If a shear plate connection is acceptable at these locations, please verify plate thickness & welding per 2/S15011. See CD RFI 204 SK1 to SK3.
3) The numbers of bolts in a single row per the schedule on 2/S1-5011 cannot be provided if bolt spacing and edge distance are to be maintained due to the difference in

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Acceptable.
3) Acceptable. Provide 3" horizontal spacing between the two vertical bolt columns.
4) Provide plates welded to the transfer girder bottom flange and the W33x118 beam web as shown in attached sketch SKS-0314 in lieu of the angle braces at the two W33x118 beams highlighted in the RFI.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

elevation between the Transfer girder and W33 beam. Please verify if it is acceptable to provide a double row with a total of 12 - 1" A325N bolts. See CD RFI 204 SK1 to SK3.
4) On S1-2303 there is bracing shown at the end of the W33 beams to the Transfer Girder. These brace members cannot be provided as the bottom of the W33 beam and the bottom of the Transfer Girder flange nearly line up, there will be nothing to connect the braces to. Please verify that the braces shown per plan are not required at these locations. See CD RFI 204 SK1 & SK2.

T-0985 **SSS - Elevator Connection Clarifications** **Closed** **12/09/2013** **12/19/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to detail 6/S1-7630 and advise how the vertical posts are intended to attach to the double horizontal HSS10x10 as no bolts or welds are indicated.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The vertical HSS is welded to the L3x3x1/2 with a three sided 5/16 fillet weld at the vertical leg of the L3x3x1/2. Provide the same three sided weld between the other leg of the L3x3x1/2 and horizontal HSS. Note that there are two L3x3x1/2 per vertical post as noted in detail 6/S1-7630.

T-0986 **SSS - Connection Clarifications at Bus Deck Level** **Closed** **12/09/2013** **12/19/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At a sample location on S1-2503 near grid 10.1/C, refer to CD RFI 197 SK1 & SK2 requesting clarification on the following:

1) The double angle connection per S1-5010 for the W12x40's fouls the connection from the W30x99 to the column. Confirm it is acceptable to connect the W12x40's to the W30x99 with shear plate connections per S1- 5011.

2) This condition occurs at grids C/9.9, G9.9, G/10.1,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

C/19.9, C/20.1, G/19.9, and G/20.1. Please confirm the solution for item 1 may be applied at these locations.

T-0987 **SSS - Elevator PE202 Dimension and Connection Clarifications** **Closed** **12/09/2013** **12/19/2013** **01/09/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to CD RFI 199 SK1 requesting clarifications for dimensions and connections at Elevator PE202 as follows:

1) Detail 8/S1-5004 shows the edge of slab is to be 1'-0" from the toe of the WF beam, but based on the dimensions shown on S1-2502, the 1'-0" requirement is met only on the west side of the elevator opening. The north, south, and east sides do not meet the 1'-0" requirement. Confirm the dimensions to locate the elevator opening WF perimeter beams are correct as indicated on S1-2502.

2) Please supply the missing dimensions to locate the HSS 12x6x1/2 on four (4) sides of the elevator opening.

3) Please clarify how the HSS12x6x1/2 perimeter members are supported and connected to each other at the corners.

4) Confirm edge plate per 8/S1-5000 is required on 4 sides of the elevator opening as none are indicated on detail 8/S1-5004.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Please refer to the attached A1-2892 2014JAN06 for the dimension of the raised elevator cap and EOS
2). See the green markups on the sketch submitted with RFI T-0987
3). The HSS 12 x 6 shall be supported by W16 at the south and W27 at the north. The TOS for the HSS 12 x 6 shall be at 1-1/4" below the TOP of the W27. Use double angle bolted connection (L 4x4x3/8" with 3-1" dia A325 bolts, which pipe sleeve inside the HSS to allow for pretension). Similar double angle connections may be used to connect the HSS at the corner, except one side of the double angle shall be welded to the face of the HSS with 5/16" fillet weld with 5/8" return.
4). Confirmed

T-0988 **SSS - W21 Full Depth Connection at Transfer Girder** **Closed** **12/09/2013** **12/19/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 there is a W21x50 beam just south of grid D that connects to the Transfer Girder along grid line 10.1. There is a similar W21x50 along 10.1 north of grid F that

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The connection of the W21x50 beam at the transfer girder near GL 10.1/D shall be a double angle connection per 12/S1-5010. A shear plate connection

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

is shown with a full depth shear connection to the Transfer Girder.

Please advise if the W21x50 near grid D should also be a full depth shear plate connection. See CD RFI 207 SK1.

specified for the W21x50 beam near GL 10.1/F is to avoid conflict with the stiffener plates at the transfer girder that are required for the WF column below.

T-0988.1 **SSS - W21 to Transfer Girder Connection** **Closed** **12/30/2013** **01/09/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per the response to Webcor RFI # T-0988 (SK RFI # 258), on S1-2303 the double angle beam connection near grids 10.1/D will foul stiffener plates at the Transfer girders, same as near grid 10.1/F. On sketch CD RFI 207.1 SK1 shows the stiffener plates at this location on line 10.1 north of grid line D. Please verify a shear plate can be used as request ed or provide an alternate connection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that a shear plate can be used as requested.

T-0989 **SSS - Beam to Column Connection at Bus Deck** **Closed** **12/09/2013** **12/19/2013** **12/20/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1) On S1-2503 at grids 11/C "H < D" indicating that detail 5/S1-5011 would apply. Based on the "H" and "D" dimension indicated on SK2, please verify detail 4/S1-5011 can be used at this condition as noted on sketches CD RFI 208 SK1 & SK2.
2) Based on a review of the project conditions, please verify that detail 5/S1-5011 will only be applied at grids 20.1/C, 20.1/G, 21/C, 21/G, 22/C & 22/G at the Bus deck level per note # 3 on 4/S1-5011.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Detail 5/S1-5011 applies not only at 20.1/C, 20.1/G, 21/C, 21/G, 22/C & 22/G but at other locations as well. For example, it is applicable at 3/D.4, 3/E.6, 4/D, 4/F, 16/C, 16/G, 32.4/C, 32.4/G. Note that the bottom continuity plate shown in detail 5/S1-5011 corresponds to the shallower of the MF beams at the MF column. For example at GL 3/D.4 H=30" corresponding to the BU 30 MF beam and D = 32.9 resulting in H

T-0990 **SSS - Skewed Beam to Beam Connection** **Closed** **12/09/2013** **12/19/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference sketches CD RFI 193 SK1 & SK2 indicating one specific location where the bolt spacing provided in detail 8/S1-5010 will not work as the bolts will foul each other. In the specific case shown on SK2, the "H1" dimension will need to be increased to 7 1/2" to avoid the fouling issue. Please confirm it is typically acceptable to increase the "H" or "H1" dimensions as required to allow sufficient clearance between the bolts for installation and tightening. If not, supply an alternate solution.

NOTE: RFI #T-0976 item 4 requested permission to typically move the shear plate to the opposite side of the skewed beam from what is shown in 8/S1-5010 to allow erection access for the skewed beams.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that in concept, it is typically acceptable to increase the "H" or "H1" dimensions as required to allow sufficient clearance. Final approval of this change will be provided during submittal review.

T-0991 **SSS - Tapered Girder Flange Plate Connection** **Closed** **12/09/2013** **12/19/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2603 at grids 9.9/B, 10.1/B, 9.9/H & 10.1/H shown on sketches CD RFI # 211 SK1 & SK2, the spacing for the Tapered girder flange plates per detail 7/S1-5032 will foul the W24x68 beam web.

Please verify the bolt spacing can be adjusted to 5 1/4" to clear the incoming W24 beam webs as indicated on CD RFI 211 SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the bolt spacing may be adjusted as proposed in this RFI.

T-0992 **BGP - Column at GL 16.9/G Coupler Stagger** **Closed** **12/10/2013** **12/17/2013** **12/12/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-3304 and S1-3301.

Detail 2/S1-3301 requires the couplers of adjacent column vertical bars to be staggered with a vertical distance of 24" or more; however, at gridlines 16.9/G there is a column

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/11/2013
RESPONSE:
Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

dowel that should have been a shorter bar (L) but was installed as a longer bar (H) and casted in the mat foundation concrete. This does not allow for the stagger pattern as required. See the attached sketch SK-RFI-114 for more details. Gerdau proposes to leave the bar as-is.

Please confirm if this is acceptable.

T-0993 **SSS - Deck Support at Columns** **Closed** **12/10/2013** **12/20/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Detail 9/S1-5000 provides a typical detail for slab edge supports. However, no detail is provided for slab edge support at columns. On S1-2403 @ sample grid locations 10.1/C & 10.1/D for slab edge supports, refer to sketches CD RFI 219 SK1 to SK4 for items 1 & 2:

1) Confirm the connections for the angles to the column flange are acceptable as shown or supply a new detail. Note all not shown is per 9/S1-5000 & RFI T-0901.

2) Confirm the connections for the angles to the column web are acceptable as shown or supply a new detail. Note all not shown is per 9/S1-5000 & RFI T-0901.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Detail @Grid C (SK-2) shall be similar to SK-3, with the outrigger angle at the edge of the slab, not at the flange of the column.

2) Confirmed.

T-0994 **SSS - Lateral Bracing Clarifications at Ground Level** **Closed** **12/10/2013** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the Lateral brace detail 3/S1-3503 refer to sketch CD RFI 213 SK1 for items 1 to 3:

1) Since detail 3/S1-3503 does not occur along grid 'C' and does at grid 'G', confirm the correct detail reference should read 1/S1-5022.
2) Referenced detail 8/S1-5015 does not show a full depth

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed

2) Confirmed

3) Confirmed

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

stiffener at the brace to beam connection. Confirm it is acceptable to proceed with the connection as shown in 8/S1-5015 & RFI T-0919. If not, supply the thickness and width of the full depth stiffener including welding for the stiffener.
3) Confirm the gusset dimensions as shown are acceptable.

T-0995 **SSS - Concrete Beam to Drag Beam Detail** **Closed** **12/10/2013** **12/20/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
1) Per details 1 & 4/S1-5022 shown on sketch CD RFI 214 SK1, please confirm the noted 1" stiffeners on detail 4/S1-5022 are also required in detail 1/S1-5022 along grid 'G'.
2) Please provide the weld for the 1" stiffeners indicated on detail 4/S1-5022.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
The note calls for 1" stiffener plates in Section 4/S1-5022 should be deleted. No stiffener is required for both Section 1 and 4/S1-5022.

T-0996 **SSS - Beam to Beam Connection Clarification** **Closed** **12/10/2013** **12/20/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
On S1-2403 at grids 11/C refer to sketches CD RFI 156 SK1 & SK2.
After applying the double angle connection per S1-5010 for the W12x14 to the W30x99, there is insufficient room to connect the W30x99 to the column flange per 8/S1-5012.
Confirm it is acceptable to connect the W12x14 to the W30x99 using a shear plate per S1-5011 or supply an alternate solution at this location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
The W12x14 beam has been moved as shown in ASI 109 drawings so that the double angle connection of the W12x14 does not conflict with the shear plate connection of the W30x99.

T-0997 **SSS - Steel Framing Clarification** **Closed** **12/10/2013** **12/20/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2604 near grids 16/D refer to sketches CD RFI 158 SK1 & SK2 and confirm the (3) W16x26 beams are not required and may be deleted as the edge of slab is located only 1'-3" east of grid 16 per A1-2904 as shown on SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The three highlighted W16 beams have been removed in ASI 109 drawings.

T-0998 **SSS - Thread Diamter at Pretensioned Rod Detail** **Closed** **12/10/2013** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

Please refer to drawing S1-5052.

On 3/S1-5052 @ the Pretensioned Rod detail refer to sketches CD RFI 229 SK1 & SK2.

The actual major thread diameters of the pre-tensioned rods in detail 3/S1-5052 do not equal the nominal diameters shown. See the actual diameters on SK2 and confirm the holes in all elements that the anchor rods pass thru as shown in details 2 & 6/S1-5052 will be 1/16" over the major thread diameter.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the elements that the rods pass through, the proposed hole diameter of rod diameter + 1/16" is acceptable in concept. Contractor to verify the actual hole size for allowing the rod to stretch during pre-tensioning.

We cannot comment on the Dyson bars included in this RFI as it has not formally submitted for approval. Note that we cannot locate RFI SK 086 (CD RFI #053) which is referred from this RFI. In future, include all referred information within the RFI.

T-0999 **SSS - Stair Detail Reference Clarification** **Closed** **12/10/2013** **12/10/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On detail 3/S1-7008 refer to sketch CD RFI 164 SK1 and review the noted detail reference does not appear to be the correct detail at the noted location. Should this read 6/S1-7601 and not 3/S1-7601? Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 3/S1-7601 shall apply as called out on 3/S1-7008. Detail 3/S1-7601 has been updated in ASI 109 drawings to reflect the condition at that location.

T-1000 **SSS - Machine Lower Nozzles Perpendicular to Pipe** **Closed** **12/10/2013** **12/10/2013** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Arup Rich Coffin

REQUEST:

Please refer to drawing S1-5111 thru S1-5133.

In recent meetings, Webcor/Obayashi has made it clear that the same Bus Deck Cast Node geometry will be used at multiple locations even though the angle of the lower Basket Columns changes at each Node. This adds a level of complexity and cost to the joint between the Cast Node and Basket Column Pipe due to the kink imposed on that joint as a result of the following:

- The Lower Pipe Columns will be required to be "miter cut" instead of a traditional square cut end. (Please note Spec Section OS 10 00, paragraph 3.2.M.1 states "Bearing ends of columns shall be milled or sawn square perpendicular to axis of the column.")
- Miter cut Pipe will have an ellipse cross section and will not match the circular Casting Node.
- Backing bars used to full pen weld the Pipe Column to the Cast Node would need to be custom machined to match the ellipse Pipe and circular Node to eliminate weld gaps. This significantly increases the complexity and risk for successfully welding the joint, and reduces the adjustability for fit up of these joints in the shop and the field.

This kink can be accommodated either by machining the nozzle of the Cast Node to be perpendicular to the pipe, or by machining the pipe end at a mitered angle to match the Cast Node.

Since this joint on the Cast Node is already being machined, Skanska/OIW believes that the more desirable and less expensive option is to machine the nozzle ofthe Cast Node perpendicular to the axis of the Basket Column Pipe . As the nozzles will each be custom machined regardless, machining them to match the pipe axis should be a relatively low cost change .

Skanska/OIW requests that the lower nozzle of each Bus Deck Cast Nodes to be machined perpendicular to the axis of the adjoining lower Basket Column Pipe. A negative response will result in a cost increase and a time increase.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contract drawings at bid time clearly showed that the centerline of the pipe is not in line with the centerline of the cast node nozzle, that the same cast node is to be used at multiple locations, and that the cast nodes were not miter cut to be perpendicular to the incoming pipe. The reference to Spec section 05 10 00 noted in this RFI regarding bearing ends does not apply for this condition as the pipe to cast node connections are not ¿bearing¿ connections, they are a fully welded connections as shown on the contract documents.

This ¿kink¿ between the topside of the ground floor basket column and the bottom-side of the bus deck cast node ¿ resulting from the building¿s geometry and the use of the same cast node type in multiple locations ¿ can be accommodated by either miter cutting the pipe or the cast node. However, the contract documents, including those available during bid, clearly show that the bus deck cast nodes were not going to be miter cut, and so miter cutting of the basket column pipe members by the Steel Contractor is necessary to accommodate the building¿s geometry.

The specified miter angle does not exceed 1.5-degrees in any location. Miter cutting a 32-inch diameter steel pipe by 1.5 degrees results in an elliptical cross-section having a major diameter of 32 / cos (1.5°) = 32.011-inches and a minor diameter of 32-inches. This results in a minimal mismatch in cross-sectional dimension / shape between the outside and inside faces of a mitred pipe member and the cast node. Based on this geometry, a two-inch wide backer bar sized properly would only show a gap of about 2/100ths of an inch, nominally. A split-ring backer bar could also be employed, which would provide some additional adjustability for this joint in the field.

There is no objection structurally or architecturally for the miter machining of either the nozzle of the bus deck cast node to be perpendicular to the pipe, or miter machining the pipe end at an angle to match the Cast Node. However, if Skanska seeks this additional

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

miter machining of the bus deck lower nozzles on the Cast Nodes, all related costs and schedule will be the responsibility of Skanska. Skanska would need to provide the requested miter angle for each Cast Node for incorporation into the casting machining drawings. Additional costs including drawing time would need to be paid for by Skanksa.

Skanska will be responsible for all costs associated with the miter machining of either the nozzle of the Cast Node or the pipe to be perpendicular or coplanar. If Skanska opts to have the lower nozzle ends of the bus deck nodes mitered, Skanksa will need to coordinate with the CM/GC to make an agreement with Bradken for this change to Bradken¿s scope of machining work for the bus deck cast nodes. Skanska will also be responsible to absorb any schedule impact without delaying the overall project schedule. NOTE: If miter cutting the bus deck cast node nozzle is selected, machining would need to be performed by a third party as Bradken does not have this capability. Be aware that those costs for machining, trucking, and for handling the cast nodes would be Skanska¿s. Custom miter cutting each nozzle end would also require additional geometric inspection of the cast nodes, the cost for which would be borne by Skanska.

T-1001 **SSS - Shear Plate Weld Connection Clarification** **Closed** **12/10/2013** **12/20/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2603 at grids 11/D for the W40 beam connections into the column web call for details 3/S1-5011 with 3 & 4/S15013 to be used. On sketches CD RFI 218 SK1 & SK2 please verify the large 2 3/8" single sided PJP weld for the 2 1/2" thick shear plate required at this location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Detail 3/S1-5013, the two shear plates highlighted on SK2 in the RFI shall be welded with a 3 sided PJP weld with 1 1/8" effective weld.

T-1002 **SSS - Web to Flange Welds at EBF Girders** **Closed** **12/10/2013** **12/20/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Arup Rich Coffin

REQUEST:

Please refer to drawing S1-4205.

Please see Plan Sheet S1-4205 Detail 1 for typical details at EBF Link Beams. The typical arrangement specifies a transition from CJP weld to fillet welds and incorporates a weld access hole to separate the 2 welds. In an effort to reduce the number of weld access holes and the inherent issues that can arise with them, Oregon Iron Works is proposing to extend the CJP welds to the end of the girders thus removing the weld access holes at the weld transition point.

Please see attached OIW sketch 2770-SK-TH02 representing a typical EBF Blank Beam Fabrication. It is Skanska/OIW's intent to extend the UT testing 1'-0" beyond the specified CJP weld zone. The balance of the weld will be MT/VT tested as required by Contract Documents.

Please confirm that the proposed welding and NDE is acceptable for all EBF link Beams at the roof perimeter. There is no cost or time impact with this change.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the proposed welding and NDE is acceptable for all EBF link beams at the roof perimeter. Also, please note the special CVN requirements for the weld materials for this EBF link beam CJP weld noted in Specification 05 12 10, paragraph 2.1.C.2.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1003	**SSS - Connection Clarification at Sloping Moment Beams**	**Closed**	**12/10/2013**	**12/20/2013**	**12/20/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

At a sample location on S1-2503 at grids 9/F refer to sketches CD RFI 150 SK1 & SK2 as noted below.

As the sloping BU beam rises 1/2" above the opposite BU beam, the thickness of the top continuity plate will be increased to 3-1/4". Confirm this is the design intent and should be applied typically at similar conditions.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the conditions described in the RFI, continuity plate thickness shall be per construction drawings (no need to increase thickness). At the condition described in the RFI (1/2" difference between the top of flange elevations), line the continuity plate up with the non-sloping MF beam. At Bus Deck Level joints at GL 2/D.4, 2/E.6, 3/D.4 and 3/D.6, the difference in elevation of MF beams on each side of the column is 2". At these joints, slope the continuity plate between the top flanges of the two beams (no need to increase thickness).

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1004	**SSS - Pins at Roof Clevises and Perimeter Bus Deck**	**Closed**	**12/10/2013**	**12/20/2013**	**12/12/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to the the following: S1-5017, S1-5131, S1-5132, S1-5133, 05 10 00 - 2.3.J & 3.2.B.2.

Paragraph 3.2.B.2 specifies the holes for the pins shall be no more than 1/32" over the diameter of the pin.
Paragraph 2.3.J specifies the pins to be Hot Dip Galvanized (HDG). This combination will lead to interference at assembly due to the following factors:
1) Tolerance in bored hole diameter of 0.010 (+0/-.010)
2) Tolerance of Pin diameter of 0.010 (+/-.005)
3) Tolerance of galvanize thickness at pin of 0.012 (+/-.006/side x 2)
4) Tolerance in thickness of primer at pin holes of 0.002 (+/-.001/side x 2)
The stack-up of tolerances is 0.034" which is greater than the specified 1/32" maximum clearance.

Skanska/Oregon Iron Works is requesting approval to supply the pins and bored holes to the following nominal values and within the tolerance identified above. These values are measured after machining and prior to coating.
1. 7" diameter pins:
a. Pin diameter = 6.906" (bored holes -1/8")
b. Bored holes = 7.032"
2. 8" diameter pins:
a. Pin diameter = 7.906 (bored holes -1/8")
b. Bored holes = 8.032"
Note that zinc coating is not a hardened material, and the coating on the pins will be prone to galling while attempting to install in a horizontal position. Skanska/OIW suggests investigating alternate pin coatings; for example, a hardened chrome coating has tightly controlled thickness tolerance and will not gall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Specification 05 10 00, the pin is to be measured by a ring gage after galvanizing. The 1/32" tolerance is for pin after galvanizing.
We don't feel a chrome coating is equal to the specified galvanized coanting. Chrome coatings do not have the construction industry track record that galvanizing has. Skanska has not provided a substitution request with technical data showing a chrome coating has the same performance as galvanizing.

T-1005	**SSS - Relocate Beam to Suit Double Angle Connection**	**Closed**	**12/10/2013**	**12/20/2013**	**12/26/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 near grids 10.1/F refer to sketch CD RFI 151 SK1 and confirm it is acceptable to relocate the W16x26 per dimensions shown to align the beam with the W21x50

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

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as the double angle connection per S1-5010 will not work with the offset if the EQ/EQ dimensions are maintained as the bolts will foul the beam web on the opposite side. If not, supply an alternate solution.

T-1006 **SSS - Re-Align Beam for Double Angle Connection** **Closed** **12/10/2013** **12/20/2013** **12/31/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to drawing S1-2603.

On S1-2603 near grids 9/F refer to sketch CD RFI 153 SK1 and confirm it is acceptable to align the noted W30x108 with the W30x90 on the south side of PE302. This will give us an off-set of 6 3/4" on the east end between the W30x108 & W24x76, which will allow a double angle connection per S1-5010. If not, supply an alternate solution as a double angle connection cannot be applied with the current beam locations because the bolts will foul the beam web on the opposite side.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the W 24x 76 may be moved to be in line with the W30x108 (moving W24, not W30, note that there is a typo in text description of this RFI).

T-1007 **SSS - Framing & Connection Clarifications** **Closed** **12/10/2013** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 near grids 12/C refer to sketches CD RFI 221 SK1 & SK2 for items 1 to 4:
1) It appears the plan shows diagonal braces similar to 12/S1-3703 but details 3/S1-3705 & 5/S1-3705 do not show the bracing. Are braces required?
If braces are required, please see items 2, 3 & 4.
2) Supply the location of the braces from grid 'C' considering the dimensions on TR12 shown on SK2 and the connection to the girder per 8/S1-5005.
3) Supply the underside of slab elevation at the brace located per dimension supplied in item 2.
4) Supply the underside of slab elevation at the brace

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Yes, braces are required per 12/S1-3703.

2) Braces may be located at one of the stiffener plate shown on 9/S1-3702.

3) Underside of the slab elevation is 18.24 (T/Slab 19.07 minus 10" slab thickness).

4) see response #3.

located per dimension supplied in item 2.

T-1008 **SSS - Framing & Connection Clarifications** **Closed** **12/10/2013** **12/20/2013** **01/25/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 near grids 12/G refer to sketches CD RFI 222 SK1 to SK3 for items 1 to 5:
1) Confirm this dimension is correct (from Revit model) to be used to determine the slope of MFB4. If not, supply the dimension.
2) Work with SK2 and confirm the location of the braces to avoid fouling connection on TR12.
3) Supply dimension (to be used to locate PL 2 1/2 x 9 x 2'-6).
4) Supply the underside of slab dimension at the location of the brace per item 2.
5) Supply the underside of slab dimension at the location of the brace per item 2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The 5'-2" dimension (End of TR12) is confirmed. The 42'-0 5/16" shall be 40'-4 ¾".

2) Location of the braces confirmed.

3) Centerline of the 2 ½" plate is 2 5/8" above the bottom of the concrete beam per Detail 5/S1-3600.

4) The elevation of the underside of the slab equal to top of slab elevation minus slab thickness (10").

5) See response #4.

T-1009 **SSS - Shear Plate Connection at Weak Axis Column Web** **Closed** **12/10/2013** **12/20/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2603 near grids 9/D the grid locations for the note indicating to use detail 3/S1-5011 at the weak axis at MF columns is unclear. On sketch CD RFI 227 SK1 please verify detail 3/S1-5011 only applies to grid lines 9/D & 9/F.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Detail 3/S1-5011 applies at beams framing into weak axis of moment frame columns at all North-South gridlines on roof level except otherwise noted. As the note calls out, moment frame columns are either located on GLs D and F or D.4 and E.6. Detail 3/S1-5011 is called out once per sheet on all roof plan sheets S1-2602 through S1-2607.

T-1010 **SSS - Detail Clarification & Locations for Concrete Beams & Plate Connections** **Closed** **12/10/2013** **12/20/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Skanska USA Civil West California DisRyan Clayton

REQUEST:

At the ground level for the concrete beam locations and 1" plate requirements refer to sketches CD RFI 230 SK1 to SK7 for items 1 to 5: Note the structural & architectural drawings do not locate these members in question.
1) Confirm all dimensions for the spacing of the concrete are correct as shown.
2) Supply all clouded concrete beam location dimensions.
3) Confirm the intended location for the 1" stiffener plates is correct as shown.
4) Confirm the welding for the 1" stiffeners is acceptable as shown.
5) Confirm the noted stiffeners are also required in detail 4B.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Confirmed.
2. For all "clouded" dimensions, refer to architectural slab edge plans for location of the slab openings.
3. The 1" stiffener plates are no longer needed.
4. See response to item 3
5. See response to item 3

T-1010.1 **SSS - Concrete Beam Location for Slab Support** **Open** **01/24/2014** **02/03/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

This is a follow-up RFI to RFI T-1010 (SK 287 CD 230) See attached CD RFI # 230.1 SK1 to SK6 for SK1 to SK6 for items 1 to 9:
1) Shown are concrete beam locations to suit slab opening dimensions on A1-2862. Confirm the dimensions are correct.
2) Shown are concrete beam locations to suit retractable bollard locations on A1-2862 & A1-2863. Confirm the dimensions are correct.
3) Shown are concrete beam locations to suit slab opening dimensions on A1-2863. Confirm the dimensions are correct.
4) Shown are concrete beam locations to suit retractable bollard locations on A1-2864. Confirm the dimensions are correct.
5) There is no information on A1-2864 to assist in locating the noted MFB1. Please supply dimension.
6) There is no information on A1-2864 to assist in locating the noted MFB1. Please supply dimension.
7) There is no information on A1-2865 to assist in locating the noted MFB1. Please supply dimension.
8) Shown are concrete beam locations to suit slab opening dimensions on A1-2865. Confirm the dimensions are

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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correct.
9)There is no information on A1-2867 to assist in locating the noted MFB1's.Please supply dimensions

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T-1011 **SSS - Slab Dimension at Seismic Joints** **Closed** **12/11/2013** **12/21/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Plan drawings S1-2503 and S1-2505 indicated a Type S8 floor type at the seismic joints at the Bus Deck level. Based on the Type S8 floor type detailed on detail 4/S1-5003, please confirm the dimensions indicated on CD RFI 202 SK1 for the structural slab and architectural topping thicknesses are accurate.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed

T-1012 **SSS - Connection for BU Girder into W40 Beam** **Closed** **12/11/2013** **12/21/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2503 at grids 9.9/B, 10.1/B, 9.9/H, and 10.1/H, please verify the shear plate connections for the BU girder framing into the W40x277 andW40x297 beams. Reference CD RFI SK1 & SK2 for locations in question.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Connection highlighted in the RFI shall be a double angle connection with 11 bolts per Detail 1/S1-5010 and not a shear plate connection. This applies to connections at GL 9.9/B, 9.9/H, 10.1/B, 10.1/H, 19.9/B, 19.9/H, 20.1/B and 20.1/H.

T-1013 **SSS - Connection Clarification at Braced Beams** **Closed** **12/11/2013** **12/21/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

Refer to sketches CD RFI # 059B.1 SK1 to SK5 for items 1 to 3:

1) This diagonal beam will typically have to be erected

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI is a follow up to RFI T-0883 and 0883.1.
1) Confirmed that the end connecting to the cast node may have the bottom flange cut flush to the web as noted in RFI T-0883. Shipping the gusset plate loose

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from the top due to the slope of the pipe at the perimeter node connection. This will require the top gusset plate to be shipped loose per CD RFI 059B response and the bottom flange of the beam cut flush to the web to slide past the shear plate on the gusset plate end. Please review attached sketches and confirm.

2) This diagonal beam will typically have to be erected from the bottom due to the slope of the pipe at the perimeter node connection. This will require the bottom gusset plate to be shipped loose contrary to CD RFI 059B response and the top flange of the beam cut flush to the web to slide past the shear plate on the gusset plate end. Please review attached sketches and confirm.

3) This beam will have to be typically erected from the bottom due to the slope of the pipe at the node connection. This will require the top flange of the beam to be coped at both end the clear the connection plates. Please review and confirm.

is a means and methods issue.
2) Confirmed that the end connecting to the cast node may have the top flange cut flush to the web as noted in RFI T-0883, shipping the gusset plate loose is a means and methods issue.
3) Confirmed that the top flange of this beam at both ends may be coped to clear the connection plates.

T-1014 **BGP - Moment Frame Beam Tie Configuration** **Closed** **12/11/2013** **12/21/2013** **12/12/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to detail 2/S1-3600.

Due to the possibility of limited access during the installation of the individual moment frame hairpins as detailed in 2/S1-3600, SCCI/Gerdau proposes to modify the typical moment frame beam tie configuration to what is shown in the attached SCCI sketch SK-RFI-399.

Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/12/2013
RESPONSE:
The proposed configuration containing hairpins with 555 t-heads is acceptable for the 48¿ deep moment frame beams only in regions further than 96¿ from the face of supporting vertical elements. For locations within 96¿, the stirrup configuration may remain as proposed; however, the 555 t-heads shall be replaced with hairpins conforming to those of Detail 2/S1-3600. Note that all ties (including cap ties) which contain both 90 and 135 hooks shall have their hooks alternated for all locations.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1015	**BGP - Moment Frame Cap Ties at shear Key Blockout**	**Closed**	**12/11/2013**	**12/21/2013**	**12/12/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

In order to avoid the shear key blockout and anchor bolts in the MF joint, SCCI/Gerdau proposes to eliminate up to two cap ties where the spacing is 4" and one cap tie where the spacing is 6". Cap ties will resume at regular spacing no further than 1" from the beyond the anchor bolts or blockout.

Reference the attached photo for more details. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/12/2013
RESPONSE:
RFI proposal is acceptable for the Type I and Type II column base plates of S1-5051 at Lower Concourse.

T-1016	**BGP - Concourse Slab Elevation at NW Corner of Area 3/Zone 1**	**Closed**	**12/11/2013**	**12/21/2013**	**12/12/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing S1-2202.

Please clarify the concourse slab thickness in gridline area 1-2 and A-C. It is unclear if the area is marked as RCS8 or RCS1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/12/2013
RESPONSE:
The lower concourse area identified is confirmed to be RCS1 as indicated by slab symbol (reference legend on S-0010) with double arrows which symbolize "extent to edge of deck." The RCS8 slab mark uses single arrows which point to the actual "edge of deck".

T-1017	**SSS - Location Clarification for Lateral Bracing**	**Closed**	**12/11/2013**	**12/21/2013**	**12/16/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2303 (S1-2302 sim.) at the lateral bracing south of line G, the concrete locations cannot be determined using the structural and architectural drawings. Please refer to CD RFI 216 SK1 & SK2 requesting clarification on the following:

1) Provide the requested dimensions X1, X2, X3, X4, and X5 to determine the length and bevel of braces.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Braces are equally spaced between Grids 9 & 9.9.

2) The bottom of the slab is equal to the top of slab elevation minus the slab thickness (10"). Top of the slab elevations may be determined assuming that the slab has a constant slope between the elevation points noted on the plan.

3) See response to item 2)

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2) Provide the requested elevations to the underside of the slab edge to determine the length and bevel of braces X1, X2, X3, X4, and X5.

3) Supply the elevation to the underside of slab at the edge of concrete beam for each brace to determine the length and bevel of the braces between grids 1.4-9 sough of grid G.

4) Supply the information to determine the slope of the slab at each steel to concrete beam brace.

4) See response to item 2)

T-1018 **SSS - Perimeter Protection Detail** **Closed** **12/11/2013** **12/21/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

In order to comply with OSHA regulation 1926.501 - 'Duty to Have Fall Protection', Skanska has directed our modeling contractor, Candraft, to incorporate holes in new framing members to facilitate installation of the guard rail systems and life lines. Please see the attached sketches, SK 6 A-F, SK 7-8 and SK R-4, which are consistent with the National Institute of Steel Detailing standards for safety holes on beams and columns, and confirm that the EOR takes no exceptions to our proposal.

Particular attention is drawn to the note on our proposal that states 'No Holes or Welded Tabs will be located in the protected zones of the new members.' All open holes will be filled with high strength bolts upon removal of the safety systems.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The holes for erection safety railing are acceptable in concept. The holes shall be detailed on the shop drawings submitted for review as a part of review process. The holes shall not be in any steel exposed to view in the completed design and there may be other areas that are not acceptable once the holes are shown on the shop drawings. Any holes in galvanized steel shall have the galvanized finish repaired.

T-1019 **SSS - Transfer Girder CJP Web-Flange Welds** **Closed** **12/11/2013** **12/21/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

In orThe web to flange T-joint CJP welds for the transfer

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The T-joint CJP welds for the transfer girders shown

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girders shown on drawings S1-4300 to S1-4308 do not indicate that a reinforcing fillet weld is required. Note 1 on 4/S1-4202 calls for reinforcing fillets to T-joint groove welds of SLRS members. Please confirm that a reinforcing fillet weld in not required for the transfer girder web to flange T-joint CJP welds.

on drawings S1-4300 to S1-4308 are double side CJP weld, not requiring reinforcing fillet weld. Detail 4/S1-4202 is for single side CJP weld at beam flange to column moment connection, therefore, Note 1 in Detail 4/S1-4202 does not apply.

T-1020 **SSS - Type 2 Drag Connection Clarifications** **Closed** **12/11/2013** **12/21/2013** **12/16/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

For Type 2 Drag Connection Clarifications refer to sketches CD RFI 148 SK1 to SK2 for items 1 to 5:

1) Supply erection gap between web reinforcement plate and shear plate on column.
2) Supply erection gap between 2" plate and shear plate on column.
3) Supply erection gap between 1 1/2" web doubler plate and 2" thick plate.
4) Supply erection gap between beam web and shear plate on column.
5) Supply erection gap between 2.5" plate and shear plate on column.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Erecting gaps between plates should be typically 1/16" If wider gap is required at certain locations, submit the gap width for approval.

T-1021 **SSS - Rebar Holes and Headed Stud Details at Ground Level** **Closed** **12/12/2013** **12/22/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Refer to sketch CD RFI 105.1 SK1.
The 2 1/2 x 14 x 2'-6" plate has been set per the elevation given in RFI # T-0888 item 3 and the 3" dia. rebar holes have been set at 1 3/4" above the underside of MFB 6 per RFI # T0888 item 8. This results in the plate fouling the rebar holes as shown.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

First rebar hole fouling the 2 ½¿ plate may be deleted. This response applies at Grid 10.1 as well.

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Note: the same occurs at grid 10.1.

T-1022 **SSS - Headed Stud and Hole Clarifications at Transfer Girders** **Closed** **12/12/2013** **12/22/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

This is a follow-up RFI to Webcor RFI #T-0890 (SK RFI # 150 & CD RFI # 109)
Refer to sketches CD RFI 109.1 SK1 to SK3. The response in Webcor RFI # T-0890 has been applied at grid 11 as shown on SK2 but the response to T-0890 with the information shown in details 6/S1-3702 & 2/S1-3705 cannot be applied at grid 9 as shown on SK3. There insufficient space to fit the (50) headed studs as requested.

Please supply a new detail for the TR9 location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For the condition at Grid 9, change the vertical spacing of the studs to 4" so the 3rd row can clear the holes for stirrups. Move the 4th and 5th rows studs to the beam top flange (4" on center in the direction perpendicular to the beam axis, 6" on center spacing in the direction parallel to the beam axis).

T-1023 **SSS - Deck Support Angle Spacing** **Closed** **12/12/2013** **12/22/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

At a sample location on S1-2403 between grids D & F west of line 10 refer to sketches CD RFI 155 SK1 & SK2 for angle spacing question below.

Detail 9/S1-5000 (see SK2) states that the maximum spacing for the deck support angles and bracing is 8'-0. As shown, the spacing of the steel framing on S1-2403 (SK1) exceeds 8'-0. Confirm the framing as shown on S1-2403 is acceptable and no further action is required or supply a revised partial plan to show the revised framing to meet the criteria in detail 9/S1-5000.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the framing as shown on S1-2403 is acceptable. No need to add more deck support outrigger and bracing.

☐

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T-1024	**SSS - Transfer Girder Studs and Rebar Holes**	**Closed**	**12/30/2013**	**01/09/2014**	**12/26/2013**	**Potentially**	

From: Webcor Construction LP Gregory Kemerer **To:** Adamson Associates, Inc. George Metzger **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At TR8 near grid line G refer to sketches CD RFI 220 SK1 to SK3 for items 1 to 3:
1) Confirm the headed studs as shown are correct (work with item 2).
2) Detail 2/S1-5023 is referenced with a "SIM' designation and it is not clear what is required on grid 8 for the additional headed studs shown in detail 2/S1-5023. Confirm the headed studs as shown on SK3 are acceptable or supply a clarifying detail specifically for this location showing the stud locations.
3a) Confirm the 2" dia. hole locations as shown on SK3 are acceptable to clear the bolts in the bottom flange and the stiffeners.
3b) Detail 2/S1-5023 shows the holes at 5" OC but this contradicts the 6" OC shown in detail 7/S1-3701. Confirm the spacing shown in item 3a above is acceptable.
3c) Confirm the 3" dia holes are not required at grid 8 as they are not shown in detail 7/S1-3701. Supply location dimensions if they are required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Head studs placement shall be based on detail shown on SK-2.
3a) Confirmed
3b) Holes are to be on 6" spacing as shown in detail 7/S1-3701
3c) 3" holes for concrete beam B57 bottom bars are needed per section 52/S1-5023.

T-1025	**SSS - Transfer Girder Stud & Rebar**	**Closed**	**12/12/2013**	**12/22/2013**	**12/26/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At Transfer Girders TR16.9 & TR19.1 near grids C & G @ detail 1/S1-3703 refer to sketches CD RFI 223 SK1 & SK2 for items 1 & 2:
1) Confirm the spacing for the headed studs as shown on SK2 is acceptable or supply spacing.
2a) Confirm it is acceptable to supply 2" dia. holes for the rebar's or supply a diameter.
2b) Confirm it is acceptable to locate the rebar holes 4" up from the top of the bottom flange as shown on SK2 or supply the dimension.
2c) Confirm it is acceptable to locate the rebar holes as shown on SK2 from the end of the Transfer Girders to avoid fouling the stiffeners.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2a) Confirmed
2b) Confirmed
2c) Confirmed. It appears that one holes for stirrup will foul the stiffeners. Adjust the hole as needed (not more than 2") to clear the stiffeners.

T-1026	**SSS - Transfer Girder Rebar Hole Locations**	**Closed**	**12/12/2013**	**12/22/2013**	**12/16/2013**	**Potentially**	☐

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From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
At Transfer girder TR6 refer to sketch CD RFI 224 SK1 and supply the elevation to the rebar holes at the bottom of B57 as the top of B57 is not known.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Top of concrete elevation @ Beam B57 is at EL 20.58. The center of the holes shall be at EL 16.83.

T-1027 **SSS - Deck Suppport at Transfer Girders** **Open** **12/12/2013** **12/22/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger
Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
At sample locations on S1-2303 @ grid lines 9.9 & 10.1 refer to sketch CD RFI 226 SK1 for items 1 & 2 below regarding deck support requirements.
1) T/Steel at beams = 19'-1 5/8 and the T/Steel for TR9.9 & TR10.1 = 19'-1 7/16 (19.12'). This leaves a difference of 3/16" as shown on SK1. Confirm deck support angles are not required along grids 9.9 & 10.1 between grids D-G.
2) If deck support angles are required, supply welding for the angles as the 1/4" fillet weld per details 8/S1-3705 and 10 & 11/S1-5002 cannot be achieved with the 3/16" elevation difference.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
3" long ¼" fillet weld @ at 12" on center at the top of the angle shown on 10/S1-5002 may be replaced with 6" long 3/16" weld at 12" on center.

T-1028 **SSS - Shaw Alley Bridge End Plates** **Closed** **12/12/2013** **12/22/2013** **12/12/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Webcor Construction LP Gregory Kemerer
Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:
Please confirm the 14 ½" long end plates shown in 5/S1-5004 are not in TG07.1R scope as the plates are welded to reinforcing steel supplied by others and so could only be installed by future concrete trade subcontractor. See attached referenced drawing S1-5004.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
These plates are included in the TG07.1R scope.

Please reference Exhibit A, Section IV, C.1.f - Metal Decking and Studs, which states Trade Subcontractor shall complete the Steel Floor Decking, including, but not limited to, end closure and cantilever plate and reinforcement at the edge of slab, in accordance with the Contract Documents.

T-1029 **SSS - Pretensioned Rod at Cruciform Columns** **Closed** **12/12/2013** **12/22/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

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Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On 2 & 6/S1-5052 @ the Pretensioned Rod details refer to sketches CD RFI 228 SK1 & SK2 for items 1 & 2:
1) The WT surface below will be milled to bear against the 2 1/2" thick plate. Work with item 2 below as shown on SK2 and confirm welding at this joint is not required as none is shown.
2) Similar to detail 2/S1-5052 as shown on SK1 (item 1 above), the contact surface will be milled for bearing as requested. Please confirm the noted 1/2" fillet welds for the built-up TT section to the 4" thick plate are to be applied as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.

2) Confirmed.

T-1031 **SSS - Typical Deck Support Details at Columns** **Closed** **12/12/2013** **12/22/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1/S1-5001 refer to sketch CD RFI 119 SK1 & SK2.
Confirm the specified L3x3x12GA deck support angles are adequate given the approximate length of these angles will be 3' 9-1/2".
The
contractor proposes to use A36 L3x3x5/16" at these typica l details. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

L 3 x 3x 12 gage deck support is adequate as shown.
It is acceptable to use L3 x 3 x5/16 as proposed.

T-1032 **SSS - Detail Clarification at Bent Plate to Sloping Beams** **Closed** **12/12/2013** **12/22/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Refer to sketch CD RFI 231 SK1 and confirm it is acceptable to fabricate the double bent deck support plate as shown when the beam is sloping and the underside of slab is horizontal, resulting in a variable height along the deck support plate. It is not possible to model a double bent plate with a variable height in Tekla.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Acceptable to fabricate the double bent deck support angle as proposed, but the weld shall be a continuous 1/4" double fillet weld, not a 3" long weld at 12" on center. Note that the lower horizontal plate needs to be welded according to welds shown in detail 4B.

☐

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T-1033	**SSS - Weld Clarifications at Light Columns**	**Closed**	**12/12/2013**	**12/22/2013**	**12/20/2013**	**Potentially**	

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Per detail At the light column bases refer to sketch CD RFI 167 SK1 for items 1 & 2:
1) Confirm the CJP weld designation applies to the 1" thick web and the 2" thick flanges to the column base plates.
2) Supply the weld requirements for the 1" shear key web to the 2" shear key flanges.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) confirmed.
2) Weld requirement for the 1" shear key web to the 2" shear key flanges: double fillet welds with w = 0.5" on each side.

T-1034	**SSS - Material Grade and CVN Requirements**	**Closed**	**12/12/2013**	**12/22/2013**	**12/12/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1. At 1/S1-4205 EBF LINK BEAM DETAIL, there is a section 4/S1-4205 that cuts an EBF LINK BEAM CROSS SECTION. The same section 4/S1-4205 is cut on 2/S1-4205 BRACE DETAIL. Please confirm that EBF link beams are where the 4/S1-4205 section is shown, and that they will be ASTM A709 grade 50 and other built-up beams at the roof park perimeter will be ASTM A572 grade 50 per SS-1/S-0007.

2. Please verify if bus deck built-up plates that are ASTM A709 grade 50 plates less than 2" thick part of the SLRS should be CVN tested 25 ft.-lb @ 70 degrees F.

3. Please supply CVN testing requirements, if any, for secondary material steel (i.e. stiffeners, connection plate, continuity plates, etc.).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The requirements for ASTM A709 Grade 50 material for the link beam is for the region between the diagonal work point as shown in Detail 1/ S1-4205. At the contractor¿s option, steel plate beyond the splice point outside of the A709 grade 50 plate may be ASTM A572, grade 50.

2. CVN should be per requirements in the respective ASTM specification and Specification 05 10 00. For a member that is a part of SLRS (or SFRS), see 05 12 10 for additional requirement for CVN testing. Also, the testing temperature for weld metal is not 70 deg F, it should be in accordance with AWS D1.1 and 1.8 (for SLRS), assuming LAST=25 deg F per specification 05 12 10, paragraph 2.1.C.3.

3. CVN requirement for stiffeners, connection plate, continuity plates shall be in accordance with their respective ASTM specification.

T-1035	**SSS - Ground Level Cast Node to 3" Connection Plate Weld**	**Closed**	**12/12/2013**	**12/22/2013**	**12/16/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1. Please verify weld configuration at 3/S1-4350, similar

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed that the weld configuration at 3/S1-4350

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condition at 2/S1-4354 and 3/S1-4356. See sketches CD RFI 225 SK1 & SK2.

2. Please verify if weld configuration 3/S1-4353 should be the same as weld shown at 3/S1-4350, 2/S1-4354 and 3/S14356. See sketch CD RFI 225 SK3.

is similar to 2/S1-4354 and 3/S1-4356. The joint bevel configuration is not correctly shown on RFI 225 SK2. The 45 deg bevel shall be on the opposite side (the side that the 3" plate connecting to the curve surface of the cast node), and 5/16" back gouge and re-weld (no need to prepare the groove) shall be on the flat side where the 3" plate is in line with the back of the cast node.
2) Confirmed. Also see response to Item 1).

T-1036 **SSS - Flange Plate between Tapered Girder and Built Up Edge Girder** **Closed** **12/12/2013** **12/22/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The 1 1/4" top flange plate per 6/S1-5010 & 7/S1-5032 will require bending due to the sloping TPG girders on the roof and a 5/16" shim will be required to fill the gap as shown in CD RFI 154 SK1&2. Confirm it is acceptable to bend the top flange plate at the edge of the BU beams on grid lines B & H and supply a 5/16" shim plate to fit the profile of the top flange plate to be welded all around to the TPG girders with 1/4" fillet weld. If not, supply an alternate solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to bend the 1 1/4" plate and add shims to match the profile of the sloping tapered girders. Note that T/steel of tapered girder is not correctly shown on SK2. T/steel of the tapered girder should match the T/steel of the BU girder at the flange edge of the BU girder.
- End of Response -

Turner disputes the claim that there is a probable cost increase as noted in this RFI. The top of steel of the beams connected are shown in the contract document. The necessity of bending the connection plate due to beam slope should be anticipated by the contractor.

T-1037 **SSS - Typical Kicker Brace Detail** **Closed** **12/12/2013** **12/22/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference the bracing connection details provided on S1-5015. At conditions where a full depth shear plate and bracing are required, there is consistently a conflict

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Acceptable.
2) Acceptable.
3) Acceptable.

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between the bottom gusset plate and shear plate. Based on the weld requirements for the kicker brace connection, the following is proposed to avoid this conflict:
1) Connect the kicker directly to the shear plate
2) Eliminate the bottom gusset
3) Offset the top gusset (below the beam) by the width of the beam web to align with the shear plate
4) Match the thickness of the gusset and stitch plates to the shear plate thickness
5) Shape the bottom of the shear plate, where necessary, to achieve the required angle brace weld

Please confirm this is an acceptable typical solution for the conditions shown in the sketches attached and at other typical locations where bracing and a full depth shear plate are required.

4) Reducing the top gusset plate thickness to match the full depth shear plate thickness is not acceptable. See response to RFI T-0920.1 where stitch plates with varying thickness were allowed to be used when the full depth shear plate and gusset plate thickness did not match. The same solution can be applied at all similar locations. Alternatively, the full depth shear plate thickness can be increased to match the gusset plate thickness.
5) Acceptable.
It is typically acceptable to apply solutions 1) through 5) at locations where there is a conflict between the bottom gusset plate and full depth shear plate at the transfer girders.

T-1038 **Spandrel Beam Reinforcement clarification Area 1-9** **Closed** **12/13/2013** **12/23/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to discussion with Thornton Tomasetti design Engineer Kerem Gulec on the responses to the RFI received to date on the spandrel Beams modifications for area's 1-9 which include: RFI's T-0707, 708, 713, 717, 718, 719, 873 & 874 the response to these RFI"s specified that a "lap splices shall be provided where the beam rebar is transitioned from the spacing in the construction drawings to the modified spacing" However following discussion this now will change to "Horizontal Rebar Bar spacing between modified spacing and construction drawings spacing will transitions over a distance of 6' on either side of the modified cross-section and thus removing the need to provide the additional lap splices. See a typical example attached.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/18/2013
RESPONSE
Confirmed.

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T-1039	**SSS - Stitch Bolts on Kicker Braces**	**Closed**	**12/16/2013**	**12/26/2013**	**12/30/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Details 4, 5 & 7/S1-5015 do not show a stitch bolt requirement for the kicker braces. At a sample location and detail shown on sketches CD RFI 066 SK1 & SK2 please confirm none are required or supply the necessary information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Section 3/S1-3703 that is just above the SK2 section cut, where the Section RFI 066-SK2 was cut. In addition to Section 3/S1-3703 refer to Section 6/S1-5022, which provides information on the stitch plate.

T-1040	**BGP - Width and Depth of Intermediate Beam in Lower Concourse at GL E.6/7**	**Closed**	**12/17/2013**	**12/27/2013**	**12/19/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference contract drawing S1-2203.

Plan sheet S1-2203 shows an intermediate beam at gridline E.6 from gridline 6 to gridline 8 (see highlighted area attached). The Section 2/S1-3400 does not give the specific dimensions for a beam with change in slab elevation. Please provide both width and depth of the beam at this location in the lower concourse.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/19/2013
RESPONSE:
There is no beam at Grid E.6 between Grids 6 and 8 of the Lower Concourse. The hidden line shown on S1-2203 is a step in the soffit that corresponds to a change in top of slab elevation. Refer to Detail 2/S1-3501 for dimensions and reinforcing. Detail 2/S1-3400 does not apply at this location. See RFI T-876 response for additional information.

T-1041	**SSS - CJP Weld Prep between Ground Level Cast Node and Transfer Girder**	**Closed**	**12/17/2013**	**12/27/2013**	**12/26/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Stacy Wilson

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Our fabricator Thompson Metal Fab has requested a 2" 45° bevel be incorporated into the ground level cast node machining drawings. This weld is detailed on 6/S1-4350. See attached sketch for bevel detail.
Please confirm approval for weld prep detailed in attached sketches.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 2" 45 degree bevel to the ground cast nodes is acceptable to incorporate into the machined drawings per CCX. The additional Cast Connex detailing, Bradken additional machining, and any other follow on expenses or schedule delays due to this change will be borne by Skanska and not the TJPA.

George Metzger
12/18/2013
RESPONSE:
Cast Connex,

Webcor/Obayashi Joint Venture

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It makes sense to have Bradken to put in this bevel as detailed on the structural drawings. Please coordinate with Bradken for this work.

T-1042 **BGP - Geothermal Manifold Locations for Fields 3, 4, 5, 6, 7, 8, 9, and 10** **Closed** **12/17/2013** **12/27/2013** **01/07/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Per the drawings, the manifold is to be located at an elevation no greater than 14' below finish grade (street) elevation. Per conversations in the preparatory DFOW meeting and other coordination meetings, the Engineer planned to have the manifold in a specific location. Attached are elevation drawings for Field 3, 4, 5, 6, 7, 8, 9 and 10 Manifolds. Please confirm that the attached elevation details work with the desgner's intent for the manifold locations for said Fields.

Note that Riser 10 has been relocated approximately 4' East between piles 231 and 232 to allow for the required 10' minimum spacing for future column installation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/7/2014
RESPONSE:
Riser penetrations into the building must occur within the beam space of the ceiling of the lower concourse level. The elevations shown on the sketches fall below the beam pockets and conflict with future emergency ventilation ducts within the building. Elevations shall be modified and resubmitted to verify that the pipes enter the building within the beam space. Risers 7 & 8 may be greater than 14'-0" below finished grade and should be reviewed by ARUP for confirmation.

T-1043 **BGP - Elevator Sill Support Angle Dimensions** **Closed** **12/17/2013** **12/27/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer attached SKA-2916 through SKA-2921, and A1-7576.

1. Please confirm Elevator Sill Support Angle at GL 2/E.2 is 4'-4" in length

2. Please confirm all other elevator sill support angles highlighted on the attached drawings extend the entire length of slab opening/pit, except where the angle terminates as prescribes in RFI response T-0837.1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
12/21/2013
RESPONSE:
1. The Elevator Sill Support Angle for PE 203 at GL 2/E.2 is 6'-0" in length (at concrete wall opening).
2. Confirmed, all other elevator sill support angles run the entire length of the edge of slab except where the angles terminates as prescribed in RFI Response T-0837.1.

Webcor/Obayashi Joint Venture

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1044	**SSS - Personnel and Material Hoist Layout**	**Closed**	**12/17/2013**	**12/17/2013**	**12/20/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Information Requested:
For reference, please use drawings A101 - A110 from Exhibit A of the Subcontractor Bid Package Manual and Forms - Contract #30100071W, #30100071C and #30100071E.

Skanska would like to confirm that the personnel and material hoist layout will be installed at the locations as shown on drawings A101 - A110. In addition, please provide the dimensions of the hoist openings.

In order for the hoists to be installed, steel framing will have to be left out until the hoists are removed. Please provide back-up engineering that allows for this to take place & provide any weldaments or bracing required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For your reference, please see the attached R2 update to the A101-A110 drawings.

T-1045	**BSE - Micropile Relocations -Zone 3**	**Closed**	**12/17/2013**	**12/27/2013**	**01/07/2014**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author:

REQUEST:

Fourteen (14) micropiles located under Span 3.7 and 3.8 in Zone 3 have to be relocated in the field due to their proximity to the Trestle Deck. Micropiles E343/E354/E363/E375/E390/ E401/E411 have to be relocated 5' to the North and micropiles E340/E353/E362/E371/E386/ E400/E410 5' to the South. See attached sketch of micropiles in question.

Please confirm these relocations are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TT field engineer¿s observation of pile layout staking and trestle configuration does not support that micropiles have to be relocated as stated in the RFI. The low-overhead rig appears very capable of installing piles per plan.

The proposed relocations are not acceptable.

T-1045.1	**Micropile Relocations -Zone 3 & 4**	**Closed**	**12/30/2013**	**01/09/2014**	**01/14/2014**	**Potentially**	☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

BBII is proposing to move 49 micropiles located within Zone 3 & 4 due to their close proximity to the Trestle/bridge Deck. Micropiles E375/E390/

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on a reanalysis of the mat slab with the proposed micropile relocations contained in the RFI, the proposed relocations are determined to be

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E401/E411/E654/E670/E704/E738/E769/E800/E815/E826 would all be relocated 5' to the North, micropiles E492/E512/E537/E564/E587/E610/E630 would also relocated 3' north. The micropiles E371/E386/E400/E410/E488/E526/E534/E559/E578/E605 /E622/E650/E666/E700/E734 /E765/E796/E811/E825 would also be relocated 5' to the South. Micropiles E416/E417/E418/E419/E420/E426/E427/E428/E429/E430 /E431 would also be relocated 3' to the West. See attached sketch of micro piles in question.

Please confirm this is acceptable

acceptable. No modifications to the mat slab are required to accommodate the proposed micropile layout.

T-1046 **SSS - Transfer Girder Weld Access Holes** **Closed** **12/17/2013** **12/27/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please confirm the weld access holes detailed on SK1 are acceptable for all Transfer Girder field splice connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached sketch SK-1 did not provide sufficient information on the dimension for the weld access hole, hence, this RFI cannot be confirmed by the Design Team. However, there is no need to resubmit this RFI. Weld access hole for the Transfer girder shall be detailed per AWD D.11, Section 5.17.1, which gives very specific requirements for the weld access hole dimension for built-up members.

T-1047 **SSS - Field Splice Locations** **Closed** **12/17/2013** **12/27/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Skanska has evaluated adding, relocating or removing sev eral field splices on a number of the transfer girders in ord er to reduce segment weights for critical picks, avoid interf erences with longitudinal framing members, increase stabil ity of the girder segments during erection and to optimize

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the proposed field splice locations are acceptable. However, changing the field splice locations shall not result into reducing the steel plate thickness. If the proposal in this RFI results in additional shoring or costs, SKANSKA shall bear the

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our erection sequencing.

Please confirm the field splice locations indicated on the at tached sketches (SK1 thru SK34) are acceptable.

additional costs.

T-1048 **SSS - Elevator Rail Support Embedded Plate** **Closed** **12/17/2013** **12/27/2013** **12/17/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Elevator rail support detail 4/S1‐7630 indicates a shop assembled support with embedded plates. As the package delineation line shows the ½" thick embedded plate is not in Skanska¿s scope of work. The embedded plates will besupplied and installed by Shimmick and Skanska will field weld the HSS with end plates to the embedded plate as indicated on SK3.
Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. The embedded plates shown in the attached sketch are to be provided and installed by others. Skanska will field weld the HSS per contract documents.

T-1048.1 **SSS - Elevator Rail Supports Erection Aids** **Closed** **01/08/2014** **01/18/2014** **01/14/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 183.1 SK1A, SK1B, SK2A & SK2B for items 1 & 2:

1.) Confirm the elevator rail support connection with erection aids is acceptable as shown.

2.) Confirm the elevator rail support connection with erection aids is acceptable as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI number changed to RFI T-1105

T-1049 **BGP - Column Base Plate Clearance Lower Concourse Slab** **Closed** **01/14/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Adib Sassine **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Ref: 1 and 3/S1-5051, S1-3600, S1-2205

To erect and plumb Lower Concourse Column with base plates Types I as shown on schedule 1/S1-5051 and II at 7/F.8 shown on detail 5A/S1-5051, erection aids will be required at the base plate. However, due to the depression, rebar running thru the depression and based on our experience with the grouting at column base plate mock-up, allowable clearances to set these base plates may not be adequate. As an example, column at GL C/24.9, the bottom of type I C base plate is within 1" from the top of rebar and does not have adequate area for shim packs.

Question # 1:

To provide adequate erection aids, please review the following options and advise as to which one is acceptable:

Option 1: Lower rebar around the base plate area by 1" to allow for 2" clear between rebar and bottom of base plate. Install 4 shim packs for erection purposes under each corner of the base plate on top of level concrete surface.

Option 2: Stop or adjust reinforcing steel under the base plate and use shim packs for erection on top of level concrete surface.

Option 3: Do not modify rebar, raise base plate elevation by 1" to provide minimum of 2" clearance under the base plate. Locate two shim packs next to key plates and install two additional erection aid threaded bolts with leveling nut drilled in concrete by Skanska as shown on the attached sketch SK-2.

Question # 2:
There is a 3" dimension between edge of steel plate and edge of depressed slab. Pls confirm if 6" dimension is acceptable in lieu of 3" around the base plates Type I C , I B and Type II at 7/F.8.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Question 1, Option 1: Lowering the MF Beam reinforcing is not acceptable. Erection aids are contractor's means and methods.
Question 1, Option 2: The reinforcing adjustments allowed are contained in RFIs 908.1, 917, 924, 925 and 1015. Erection aids are contractor's means and methods.
Question 1, Option 3: Raising the column base plates is not acceptable. Erection aids are contractor's means and methods.
Question 2: Increasing the plan dimension of the column base plate block-out to 6" all around is acceptable.

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T-1050	**SSS - Field Splice Framing Interference**	**Closed**	**12/19/2013**	**12/29/2013**	**12/30/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At two locations, TR5 & TR33.2 the framing beam end con nections foul the Transfer girder field splices. Please verify beam framing adjustments shown on CD RFI # 163 SK3 & SK10 are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Do not move the W40x211 beam. The transfer girder splice may be move toward south 1'-0" to be in line with the step of the transfer girder.

2) Do not move the W21x44 beam. The transfer girder spice may be move south slightly to clear the W21 and W33 connections.

T-1051	**SSS - BRB Gusset Plate Connections**	**Closed**	**12/19/2013**	**12/29/2013**	**12/30/2013**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The details on S1-4206 & S1-4207 do not provide the information required to finalize the shape of the BRB gusset plates. Please see questions below and noted on sketches CD RFI 236 SK1 & SK2.
1) Please provide a typ. minimum dimension to maintain from the edge of the Clevis plate to the corners of the gusset. See SK1 & SK2.
2) Please verify the typ. length for the gussets on 1 & 5/S1-4206, 1/S1-4207, see SK1.
3) Please verify the typ. length for the gusset on 2/S1-4206, see SK2.
4) Please verify if a typ. minimum width for the gusset on 2/S1-4206 is to be maintained or the shape of the gusset can be based from the offset of the edge of the Clevis plate to the corners of the gusset? See SK2.
5) Please verify if the 1/2" stiffener should maintain a minimum width or should the stiffener extend to the edge of the beam flange? also please verify if the corners of the stiffeners should be shaped? if so, please provide details. See SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The dimensions requested are pending on the geometry of the end connections of the BRB brace. Skanska to submit BRB Technical Submittals per specification 05 12 50.

2) See response #1

3) See response #1

4) See response #1

5) Stiffeners shall match the width of the beam. Corners of the stiffener plates do not need to be shaped.

T-1052	**SSS - W10 Detail Clarifications**	**Closed**	**12/19/2013**	**12/29/2013**	**01/02/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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1. Confirm the dimensions as shown are correct and match the W-10 system.
2. The noted elevation shown on 87'-4" in details 1,4,9/S1-8008 conflicts with A1-2903. Please verify correct elevation.
3. Supply the offset from top of curb to determine the location of the 3/8" x 6" x 6" stiffener plates.
4. The 5/16" fillet weld all around is only possible on one side of the post due to the 10 1/8" flange width on the W27x114 and the limited remaining distance on the end of the beam as shown. Confirm it is acceptable to supply a 5/16" PJP weld on 3 sides.

1). The clouded dimensions shall be determined from the W-10 3d model, TTC_SBP_STR_WRF_MST_NFC_W10-WIREFRAME_131010, which WOJV has as part of the current bid documents.

2). The top of concrete curb elevation is 87'-4 1/2" (Also see Detail 5/S1-6011).

3). The clouded dimension (center line of the rebar to face of sloping concrete wall) is 1 1/2".

4). The 5/16" fillet weld is on 2 sides only (not all around as stated in this RFI). The width of the stiffeners can be reduce to match the W27 beam flange width. Don't see a problem in performing the double fillet weld, however, a CJP weld to replace the double fillet weld is acceptable.

T-1052.1 **SSS - W10 Detail Clarifications** **Open** **01/16/2014** **01/26/2014** **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author:

REQUEST:

The response to RFI T-1052 (SK RFI 309.1), states that "The 5/16" fillet weld is on 2 sides only (not all around as stated in this RFI). The width of the stiffeners can be reduced to match the W27 beam flange width. Don't see a problem in performing the double fillet weld, however, a CJP weld to replace the double fillet weld is acceptable." The original question asked permission to use a PJP weld in lieu of the double fillet weld, not a CJP weld. Please clarify the following:

1) Skanska disagrees with the note that the referenced weld is shown as being required on 2 sides only. Please review the attached SK2 and confirm the welding locations as shown are acceptable.

2.) As there is insufficient landing to perform the 5/16" fillet as originally detailed, please confirm the welding as per

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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CD RFI 240.1 SK2 is acceptable.

T-1053 **SSS - Roof Park Level W40 to BU Girder Connections** **Closed** **12/19/2013** **12/29/2013** **12/31/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2602 to S1-2607 along lines B & H the bottom flanges of the sloping W40x264 moment beams are deeper than the BU 40 girders by 5/16" of an inch as noted on sketch CD RFI # 217 SK1.
1). To accommodate for the depth discrepancy verify a 1/2" plate can be added to the bottom of the BU 40 girders and the welds as noted on sketch SK1.
2). Also for the top & bottom flange welds for the W40x264 sloping beams verify the CJP weld noted on the sketch SK1.
3). Option # 2 is to move the work points of the W40x264 beams up 5/16" thus flanges would then be flush for both W40 & BU 40 members.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The top of steel for the slope W40 may be set to match the BU40 girder at the tip of the flange, thus, avoid the need for the 1/2" connection plate.

2) 1 3/4" bevel for 1 1/2" effective PJP weld is acceptable.

3) See response to Item 1).

T-1053.1 **SSS - Roof Park Level W40 to BU Girder Connections** **Closed** **01/21/2014** **01/31/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference the response to RFI T-1053. Per the conversation during the 1/21/14 Structural Issues Meeting, please address the following:

1) Please confirm that a 1/2" plate is acceptable as described in RFI T-1053, item #1

2) Please confirm that a CJP weld will be acceptable in lieu of a PJP weld, as described in RFI T-1053, item #2

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.
2) Confirmed.

T-1054 **SSS - Light Column Reference Detail Clarifications** **Closed** **12/19/2013** **12/29/2013** **12/20/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

ASI 0106 changed the majority of the detail and section references on drawing S1-6005 that result in incomplete or incorrect traceability. These changes were not clouded. Two possible issues exist as a result of these changes:

1) Some of the revised detail/section references were revised in error, and/or
2) Some of the revised detail/section references are correct and the referenced drawing requires either a revision to match the sourced reference or the addition of a new detail/section.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI references the outdated drawings in ASI 106. Please reference the updated drawings in ASI 108 & 109 and clarify your question.

T-1055 **SSS - Tapered Girder Connections** **Closed** **12/19/2013** **12/29/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the roof Tapered girders refer to sketches CD RFI 238 SK1 to SK3 for items 1 & 2. The proposed erection method for the Tapered Girders on the roof is to shop attach both connection angles at the roof perimeter (See SK3), tip the girder into the connected position on the perimeter BU-Girders and then lower the left end between the double shear plates on the columns (see SK2). In order to erect these girders confirm the dimensions may be increased as noted:

1) With the connection angles tight against the BU-Girder on the right end, the 2" clear dimension per detail 2/S1-5016 will need to increase to 3 1/2" assuming the back-up bar will not exceed 3/4" thick. Confirm it is acceptable to increase the dimension as noted for all Tapered Girders.
2) This 1" dimension will need to increase to 2 1/2" to be able to erect the girder as described on SK1. Confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) See response to Item 2 and 3

2) Confirmed that the 2" gap may be increased to 3 1/2". The RFI SK149 (CD108) was not included in this RFI, so we cannot figure out the meaning of "assuming the back-up bar per RFI SK149(CD 108) will not exceed 3.4" thick"

3) If the bottom flange is to be coped for erection purpose, extend the web stiffener plate (L=17" in Detail 2E/S1-5016) the same distance equal to the length of the flange cope.

T-1056 **SSS - Edge Plate Clarifications** **Closed** **12/20/2013** **12/20/2013** **12/31/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On S1-2604 & 2605 between grids 17 to 24 & D to F refer to sketches CD RFI 159 SK1 to SK3 for items 1 & 2 for edge plate clarification. Detail 1/S1-8000 and details 1, 3 & 4/S1-8016 show edge plate on the beam. Please confirm/clarify the following items:
1) Confirm the edge plates on the noted details is per 8/S1-5000.
2) The vertical leg of the edge plate appears to extend above the slab but does not extend up to the construction joint. Confirm the vertical leg terminates at the top of roof slab or clarify the vertical height.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed the detail is per 8/S1-5000, but the angle thickness shall be 3/8".
2). Confirmed that the vertical leg terminates at the top of roof slab.

T-1057 **SSS - Bus Deck Level Edge of Slab Plate Clarification** **Closed** **12/20/2013** **12/30/2013** **01/09/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

For edge for slab framing @ slab notch refer to sketches CD RFI 234 SK1 to SK3 for items 1 to 3:

1) Work with SK2 & SK3 and supply the location, angle orientation and connection detail for the L6x6x3/8 in light of the beam flange cut-back as shown.
2) Supply the location, angle orientation and a connection detail for the L6x6x3/8 in detail 2 & 4/S1-2550.
3) Supply the location, angle orientation and a connection detail for the (2) L6x6x3/8 in detail 6/S1-2550.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) The L6x6x3/8 is to be laid parallel to the Grid B, as close to the cast node as possible. The vertical leg of the angle is to be clipped, and laid flat on top of the beam, no connection is needed.
2) See the response #1
3) See the response #1

T-1058 **SSS - Brace Detail Clarifications at Spandrel Beams** **Closed** **12/20/2013** **12/30/2013** **01/02/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At 2nd level & Bus deck level Spandrel beams refer to sketches CD RFI 235 SK1 & SK2 for items 1 to 8:
1) Detail 1/S1-8020 is not referenced on the structural Bus Deck Level plans. Please clarify where this detail applies.
2) Detail 4/S1-8020 is not referenced on the structural Second Level plans. Please clarify where this detail

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Detail 1/S1-8020 was referenced in the Plan Note #3, Sheet S1-2402. See architectural drawings A1-2302 thru A1-2304 for the locations of W-2 system.
2). Detail 4/S1-8020 was referenced in the Plan Note #3, Sheet S1-2402. See architectural drawings A1-2302 thru A1-2304 for the locations of W-2 system.

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applies.
3) Supply the information showing the W-2 mullion locations to help locate the angle braces in details 1 & 4/S1-8020.
4) Confirm the work point for the brace is on beam center at top of bottom flange in details 1 & 4/S1-8020.
5) Supply the work point location for the brace from top of beam in details 1 & 4/S1-8020.
6) Confirm the noted plate size in details 1 & 4/S1-8020 is a minimum size and may be increased to facilitate the connection.
7) Supply stitch plate requirements in details 1 & 4/S1-8020.
8) Confirm the brace in detail 1/S1-8020 may be connected beyond the beam flange as shown in 4/S1-8020 (SK2) to facilitate the erection of the brace.

3). The W-2 design documents are in-progress and have not been issued for bid. The dimensions requested should be obtained from the W-2 Shop Drawings as the exact final mullion placement will be determined by the W-2 trade subcontractor.
4). Confirmed.
5). Work point to be located at the intersection of the beam centerline and bottom face of the flange.
6). Confirmed.
7). Stitch plates shall not be spaced more than 4'-0" on center with 1 -3/4" dia A-325 bolt.
8). Confirmed.

T-1059 **SSS - EOS Closure Details at Columns** **Closed** **12/20/2013** **12/30/2013** **01/10/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the 2nd level at sample locations on S1-2403 @ grids 9.9/C & G please verify the edge of slab closure detail at the column grid lines per detail 1/S1-5004 shown on sketch CD RFI 246 SK1 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the detail shown on sketch CD RFI 246 SK1 is acceptable. Provide welding between the vertical leg and horizontal leg of the bent plate.

T-1060 **SSS - Shop Primer Coat Exclusion Areas** **Closed** **12/20/2013** **12/30/2013** **12/26/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Specification section 05 10 003.2 P.3b specifically excludes shop paint from areas to be enclosed in concrete and cementitious fireproofing. Drawing A-8662 matrix shows 3 different types of fireproofing, SFRM, IFRM-1 and IFRM-2. Please confirm which of these are cement based so we can determine shop painting limits.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Prep and prime all steel that is to recieve fireproofing per the fireproofing manufacturer's recommendations. Fireproofing type SFRM-1 is cementitious fireproofing. For reference only, see the attached in-progress specification sections 07 81 00 (SFRM-1) and 07 81 23 (IFRM-1 & IFRM-2).

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1060.1	**SSS - Shop Primer Coat Exclusion Areas**	**Closed**	**01/06/2014**	**01/16/2014**	**01/16/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

While specification section 05 10 00-3.2 .P.3b excludes shop paint from areas to receive cementitious fireproofing, the response to SK RFI 319 (WOJV T-1060) indicates that all steel is to be prepped per the manufacturer's recommendations. The response to WOJV T-1060 provided three potential manufacturers for the SFRM-1 per the preliminary specification section 07 81 00-2.3.A.

1.) Based on the product data sheets published for the Grace Monokote Z-146 and Cafco Fendolite M-II products, Skanska understands that these products are recommended to be applied to bare steel that is free of oil, grease, excess rolling compounds, lubricants, loose mill scale, excess rust,..., or any other substance that will impair proper adhesion. Please confirm this interpretation is acceptable and the potential use of these products is intended for application on bare steel.

2.) The Carboline Pyrocrete 40 product does not require the use of a primer, however the published data sheets state that "Pyrocrete 40 neither promotes nor prevents corrosion". It is understood that the manufacturer finds application of Pyrocrete 40 to bare steel to be acceptable on the building interior, but recommends the Owner's consideration of a primer on steel exposed to corrosion. Please advise which areas, if any, are required to be primed prior to application of the Carboline Pyrocrete 40 product.

Please note that application of a primer for areas receiving any of the three SFRM-1 products will incur additional costs and schedule impacts, as these areas were originally specified to be bare steel per 05 10 00-3.2.P.3b.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1.) Confirmed.
2.) The two manufacturers described in item 1 above meet the technical performance requirements specified. The third product on item 2 should match the technical performance requirements specified in section 07 81 00 without requiring additional treatments to meet the specified requirements. If the manufacturer of this product deems it necessary to add corrosion protection for meeting the requirements, they should add this to their bid.

As an additional measure prior to issuing specification section 07 81 00 for bid, we will add "or equal" to the Materials listing of Specification Section 07 81 00.

T-1060.2	**SSS - Shop Primer Coat Exclusion Areas**	**Open**	**01/27/2014**	**02/06/2014**		**Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author:

REQUEST:

Details 5, 6, and 7/A1-8662 indicate "12 inches of fireproofing required on stiffener fins, typical."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1) Please provide a UL assembly # and details for conditions where cruciform columns are enclosed with exterior wall cladding or interior furred-out walls.

2) Structural drawings reference cruciform columns while A1-8662 references "stiffener fins." Please advise if the A1-8662 drawings are intended to show the cruciform columns, and provide revised drawings as necessary. Please provide the applicable UL assembly for cruciform columns with any revised details.

3) Please advise if the cruciform columns are to be fireproofed SFRM-1 per spec section 07 81 00

T-1061 **SSS - Weld Access Hole Details at Column Webs to Base & Cap Plates** **Closed** **12/20/2013** **12/30/2013** **12/30/2013** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On details 4/S1-5052 & 1/S1-5052 (sim.) refer to sketch CD RFI 134B.1 SK1 and verify the weld access hole size and radius in the column webs is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Geometry of the weld access hole for SMRS shall be in accordance with AWS D1.8, Section 6.10.

T-1062 **BSE - Timber Pile Removal from CDSM Wall** **Closed** **01/03/2014** **01/02/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Balfour Beatty Infrastructure, Inc. Danny Walsh

REQUEST:

BBII has located portions of timber piles in several CDSM wall panels along gridline A in zone 3 at excavation levels 4 and 5, between soldier piles 255-257 and 259-261. BBII believes any attempt to remove the piles has the potential to damage the CDSM wall. Given that there is no issue with water intrusion at the pile locations and the CDSM material is in good condition, BBII believes the best course of action is to leave them in place. To ensure a smooth surface for waterproofing, the piles have been ground down so that they are recessed from the face of wall. BBII

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

ARUP Response:
We take no exception.

Adamson Associates, Inc. Response:
The CM/GC shall confirm the waterproofing subcontractor/manufacturer and the contractor's waterpoofing system designer accept the site conditions

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will then patch over the panel to bring it flush with the CDSM piles. (Patching has already occurred on a portion of the affected areas - see attached photos of panels before and after the above procedure.)

Please confirm this is acceptable

T-1063 **BSE - Micropile E335 Relocation** **Closed** **12/26/2013** **01/05/2014** **01/03/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

Micropiles E335 cannot be installed as laid out due to a dewatering well.
BBII proposes moving E335 North 3' and West 2'.
See attached sketch.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

T-1064 **BGP - Fire Alarm Conduits at Column D.8/12** **Closed** **12/30/2013** **01/09/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing A1-9204.

Detail A on A1-9204 calls for embedded junction boxes on GL D.8 from GL 13 to GL 33.2. A set of (3) 1" fire alarm conduits were erroneously installed embedded at the column on D.8/12 rather than stubbing up outside the column. An embedded junction box was installed flush with the face of the column at a height of 13'-9" to center per Detail A. If future devices are to be installed on that column at a different height, then an extension box can be installed, and conduit can be run from the extension box on the surface of the column.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/9/2014
RESPONSE:
1) For the condition described in the RFI, the Contractor should include an extension box with blank faceplate, box depth of 2-3/4" (which will be flush with the finished face of the future column cladding).
2) Extension box shall have knockout provisions for the conduit extension to the strobe to be concealed within the finished column wrap.
3) The as-built condition and detail shall be documented on the as-built drawings.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1065	**BGP - Elevation Discrepancy at Escalator Pit near GL 21/E.2**	**Closed**	**12/30/2013**	**01/09/2014**	**01/02/2014**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing S1-2205, S1-7660 and SKA-2919.

The depth from the concourse TOC to the TOC in the pit conflicts in Details 10 and 11 of drawing sheet S1-7660. Detail 11 shows a distance of 4-feet from the concourse finished floor to the TOC in the pit. As drawn, this indicates a concourse TOC to pit TOC depth of 3'-9". Detail 10 shows the dimensions between the concourse TOC and the bottom of the slab in the pit as 4-feet, and this indicates a concourse TOC to pit TOC depth of 3'-7". Elevations provided in SK2919 also indicate the concourse TOC to pit
TOC distance is 3'-7".

Please clarify the correct depth dimensions for the pits represented in Details 10 and 11 of S1-7660.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The details are not in conflict. Detail 11: FF=-7'-9" minus 4'-0" = -11'-9". Detail 10: TOC=-8'-2" minus 3'-7" = -11'-9". Pit depth relative to FF = 4'-0". Pit depth relative to TOC = 3'-7". Refer to Sheet A1-2205.

T-1066	**BGP - Moment Frame Beam and Column Conflict GL 21**	**Closed**	**12/30/2013**	**01/09/2014**	**01/09/2014**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing S1-2025, S1-3304 ans S1-3621.

Please confirm that the moment frame beam at GL 21 is 66-inches. Columns at GL C21 and G21 are 68-inches which make them 2-inches wider than the moment frame beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Increase GL21 moment frame beam width from 66" to 72" per sketch SKS-0323. Required revisions to the rebar detailing is also provided in the same sketch.

T-1067	**SSS - Stair and Elevator Connections**	**Closed**	**12/30/2013**	**12/30/2013**	**01/13/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Adamson Associates, Inc. George Metzger **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Arup Rich Coffin

REQUEST:

For typical stair & elevator connections refer to sketches CD RFI 181 SK1 to SK3 for items 1 to 11:
1. Please consider attached detail (CD RFI 181 SK4) as

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The Design Team cannot accept the proposed detail as shown in CD RFI 181 SK4 because required fire protection and separation of the structural beam

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an alternative for elevator post bases shown in 1/S1-7600 and 10/S1-7600.
2. Confirm a 1/16" gap between post and angle on each side is acceptable (CD RFI 181 SK1).
3. Plate washers are not shown for the slotted holes for 1" dia. A307 bolts. Are they required? (CD RFI 181 SK1)
4. Supply dimensions for kicker brace connections to composite deck requested on (CD RFI 181 SK2)
5. Confirm gusset and hole dimensions at top of kicker brace (Detail E) are same as shown for bottom of brace connection shown in CD RFI 181 SK2B.

and slab is not able to be maintained. Note that the HSS is to align with the EOS and not be set off the EOS by the noted 1/2" dimension in CD RFI 181 SK4.

2. Confirmed.

3. No.

4. For detail 2D/S1-7600, the width of the plate is the length required to capture 2 flutes as shown in detail. Fasteners shall be centered on deck bottom flute. For detail 2B/S1-7600, fasteners shall be 3" from the ends of the plate/angle and 6" min between fasteners.

5. Confirmed with the following exception: The centerline of bolt to end of kicker angle at bottom flange of beam and top of brace at the L5x5 shall be 2".

T-1068 **SSS - Perimeter Connections at GL C&G** **Closed** **12/30/2013** **01/09/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Details 7 & 8/S1-3703 are shown on sheet S1-2305 as typical sections for beams connecting perpendicular to the perimeter BU & WF beams at grid lines C & G. These sections reflect the varying elevation differences between the two members. In most conditions, the remaining depth of the beam framing into the perimeter BU or WF will only allow for a two bolt connection as shown in details 7 & 8/S1-3703.

1) Please confirm it is acceptable to use a two bolt shear plate connection for any beam size where the remaining depth of the connecting beam will only allow for two bolts. The shear plate thickness and welding will be per the schedule on 1/S1-5011.
2) Please confirm at some locations it is acceptable to cut the flange flush on one side of the beam to maintain edge distance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Details 7 & 8 /S1-3703 showing 2 bolt shear connection are applicable to the condition where the sections are cut and similar condition.

2). Confirmed. Specific application of this detail will be reviewed on a case by case basis during shop drawing review.

3). AISC minimum edge distance shall be maintained.

4). Confirmed.

5). Confirmed. Specific application of the approach stated will be reviewed on a case by case basis during shop drawing review.

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3) Please confirm edge distance can be reduced where needed to complete connection.
4) Please confirm a double angle connection should be used when the varying elevations will allow for more than a two bolt connection. The angle size & thickness will be per the schedule on 1/S1-5010.
5) Please confirm the maximum amount of bolts that will be used would be based on the remaining depth of the connecting beam.

T-1069 **SSS - Connection at Crash Rail Supports** **Closed** **12/30/2013** **01/09/2014** **01/09/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the Bus deck level at the Crash Rail supports beams, verify when larger beams are framing into smaller beams that details 1/S1-5031 will be used with detail 1/S1-5011 for the number of bolts required. At sample locations on S1-2502 & S1-25 03, refer to sketches CD RFI 248 SK1 to SK3 and verify the 3 Types indicated.

Note: The other ends of the beams in question are connected per the typical detail 1/S1-8000 at the grid lines unless indicated with a moment connection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed
2) Confirmed
3) Confirmed

T-1070 **SSS - Connection Clarification at Escalator Areas** **Closed** **12/30/2013** **01/09/2014** **01/16/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1). On 1/S1-7303 at Escalator E309 & E310 at detail 5/S1-7661 verify 4 - 7/8" A325N (non TC) bolts can be used in lieu of the 5/16" field weld that would be required, see sketches CD RFI 243 SK1 & SK2 for reference.
2). Per detail 5/S1-7661 verify the stiffener plates are 2/3/4" wide to match the beam flange with as noted on sketch CD RFI 243 SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Contractor proposed is acceptable, however, please refer to updated S1-7303 issued with TG07.2 Addendum #1 dated 12/13/2013 for updates to this low beam area condition.

2. Stiffener plate width is per referenced detail. See also response 1 to refer to updated sheet.

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PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1071	**SSS - Edge of Slab Support at Protected Zones**	**Closed**	**12/30/2013**	**01/09/2014**	**01/13/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the Bus deck level (S1-2503) @ grids D/9.9 & 10.1 and F/9.9 & 10.1 the 3/8" edge of slab bent plate protrudes 3'-4 & 2'-3 from grid lines 9.9 & 10.1 respectively as shown on sketch CD RFI 244 SK1. Due to the 5'-0 protected zone at these lo cations the angle supports per detail 9/S1-5000 cannot be attached due to no welding is allowed in this area. Please advise on this non supported area and other similar type areas where no welding is allowed in the protected zones.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At grids D/9.9 & 10.1 and F/9.9 & 10.1, run an L5x5X3/8 parallel to the moment frame beam between the two outriggers, namely, the cantilever W30x90 (gravity moment connected to the MF beam) and the support angle at the moment frame column. Attach the angle legs to each support using fillet welds (1/4" thk, 2" long), cope the angle as needed. Note that seam welding to be provided where the bent plate width changes.

T-1072	**SSS - Clarify Beam Connections at Protected Zones**	**Closed**	**12/30/2013**	**01/09/2014**	**01/07/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

At the Bus deck level near grids 10.1/F & 10.1/D please verify the double angle connections for the W16 beams can partially connect into the protected zones for the BU moment girders as shown on sketch CD RFI 247 SK1. If not please supply an alternate connection.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The encroachments into the protected zones by the double angle connections at the two locations indicated the RFI are acceptable. Note that the W16X26s indicated in the RFI have been revised to W21X50s in 12/13/13 package (TG 7.2 IFB, Addendum #1 package).

T-1073	**SSS - North Exit Mezzanine Support**	**Closed**	**12/30/2013**	**01/09/2014**	**01/24/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to detail 1/S1-2252 in regards to the following clarifications for the North Exit Mezzanine:

1.) Please provide connection details for MC4x13.8 channels framing into the W12x40 beam, CMU wall, and adjacent MC4x13.8 members.
2.) Please confirm how MC4x13.8 channel, east of GL 24, is supported at east end.
3.) Please provide the required dimension to locate the east end of the W12x40 member.
4.) Bracing for the W12x40 appears to be located slightly west of CL 23. Please provide the indicated dimension to

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. For MC4 to W12, weld channel with 5/16 fillet weld to 3/8" thick plate welded to underside of W12 beam (use 1/4" fillet weld, NS/FS). See 4/S1-5032 for graphic reference. For MC4 to CMU wall refer to updated version of sheet dated 12/13/2013 Issued for Bid Addendum #1. For MC4 to perpendicular MC4, use 1/4" fillet weld all around.

2. Refer to 12/S1-9001.

3. End of W12 is at EOS. Refer to architectural drawings for EOS.

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locate bracing. Verify that this is the only location to receive bracing along the length of the W12x40.
5.) a. Please confirm the splice locations indicated on SK1 for the W12x40 beam are acceptable. Note that the splice just west of CL 23 may need to be shifted slightly depending on the response to item #3.
b. Please provide a splice detail for the W12x40. Note that bolted splice connections are preferred.

4. Dimension to locate bracing in SK1 is 2'-9" west of gridline 23. Locate second set of bracing at 6'-9" west of gridline 24.

5a. Acceptable, however adjust as necessary for brace locations identified in response 4. Locate splice in middle third of spans between hanger locations and avoid locations 3 ft within brace locations.

5b. Refer to T-0979 SSS RFI response for splice information.

T-1074 **SSS - Crash Rail at Bus Deck** **Closed** **12/30/2013** **01/09/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

On the Bus deck level, at the Crash Rail detail 1/S1-8000, refer to sketches CD RFI 242 SK1 to SK3 for items 1 to 3:

1.) Confirm the noted weld is acceptable.
2.) Confirm the noted weld is acceptable.
3.) Please confirm it is acceptable to provide a 7/8" plate in lieu of a 13/16" plate, as a 13/16" plate to match the flange thickness is not available. Note this creates a 1/16" gap between the top of the stiffener and underside of the beam flange as indicated in SK3. Please confirm this is acceptable or provide an alternate solution.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed

2). Confirmed

3). Confirm using 7/8" plate is acceptable. Provide shim plate at the bolt connection. Confirmed the 1/16" gap at the stiffener plate is acceptable. Adjust the fillet weld size per AWS code to account for the 1/16".

T-1075 **SSS - Girder Weld Details** **Closed** **12/31/2013** **01/10/2014** **01/08/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

For girder weld details, refer to detail 7/S1-4202 & CD RFI 241 SK1 for the following:

1). Please verify that holes are not required in the built up

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1.) If the contractor chooses to splice the beam flanges at these weld transitions, then these holes would serve as weld access holes. Otherwise these holes are not required.

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members as shown on CD RFI SK1.

2). Please verify the noted welds as shown on CD RFI SK1.

3). Please verify the weld transition as shown on CD RFI SK1.

2.) To be reviewed as part of shop drawings, following submittal and review of welding procedures.

3.) If no hole used, weld transition should comply with AWS D1.1 Section 2.8.2. Fillet weld shall start at the transition line shown in the construction drawings (i.e., fillet weld to overlap with tapering CJP).

T-1076 **SSS - Transfer Girder Stiffener & Shear Plates** **Closed** **12/31/2013** **01/10/2014** **01/07/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

1). At the Transfer girder stiffener & shear plates noted on S1-5052 & 2/S1-4350 verify the plates corner access hole size with a 1/2" radius when the stiffener & shear plates are welded with a CJP prep as noted on sketch CD RFI # 166.1 SK1 is acceptable.

2). At the Transfer girder stiffener & shear plates noted on S1-5052 & 2/S1-4350 verify the plates corner clip size when the stiffener & shear plates are welded with a fillet weld as noted on sketch CD RFI # 166.1 SK2 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1.) Acceptable.
2.) Acceptable. Note that a minimum clear distance of ½ inch shall be provided between the access hole and fillet welds connecting the stiffener (or shear plate) to beam web.

T-1077 **Bracing removal/re-bracing sequence on the west end of Zone 1** **Closed** **01/02/2014** **01/12/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Bracing removal/re-bracing sequence on the west end of Zone 1
WOJV is proposing the following sequence for the re-bracing/ Bracing removal for the west side of Zone 1 See sketches SK-1, 2 & 3 attached.

For level C strut removal see sequence on attached

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The propopsed method is not acceptable. Both sets of diagonal bracing, on the north side and the south side, and the first few cross lot braces work in conjunction as a group. Any one part cannot be removed until the rebracing is complete for the entire group.

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sketch SK1. WOJV is proposing to remove level C bracing in three defined areas.
1. Remove level C Cross lot struts and walers from east to west direction once the walls and RB re-bracing is installed and stressed.
2. Remove level C struts and walers from south west corner once the walls and RB re-bracing rakers beneath are installed.
3. Remove level C struts and walers from north west corner once the walls and RB rakers beneath have been installed.

For level B strut removal see sequence and defined areas on attached sketch SK2
1. Remove level B struts and walers from east to west direction once the lower concourse slab beneath has been place, cured and reached the required design strength.
2. Remove level B struts and walers from south west and north west corner once the lower concourse slab beneath has been place, cured and reached the required design strength.

For level A strut removal see sequence on attached sketch SK3
1. Remove level A cross lot struts and walers from east to west direction once the RA re-bracing is installed and stressed.
2. Remove level A struts and walers from south west corner once all the RA re-bracing rakers and +7.00' diaphragm slab beneath have been installed.
3. Remove level A struts and walers from north west corner once the RA re-bracing rakers beneath have been installed.

Please confirm if this sequence would be acceptable

T-1078	**SSS - Machine Type 1 Drag Connection Pads**	**Closed**	**01/02/2014**	**01/12/2014**	**01/15/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

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REQUEST:

The Type 1 Drag Connection shear plates are shown on drawing S1-5016 to be oriented perpendicular to the connection face of the cast node and further they are shown to be centered with respect to the width of the connect ion face. OIW has discovered that this is in error; the shear plates are neither centered on the face nor do they project perpendicular from the face. These conditions significantly increase the complexity of this welded joint.

OIW would like to use a CNC milling machine to prepare the surface of the Type 1 Drag Connection pads on the cast nodes in order to provide a perpendicular surface for the shear plates to attach to. Please see attached sketch showing proposed machining.

1. Please indicate if it is acceptable to machine these surfaces.
2. Please indicate if there is adequate stock to allow machining of these surfaces or if additional stock must be added.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The contract drawings at bid time clearly showed orientation of the connection pads of the cast node. Since the cast node contract drawings and the cast node shop drawings (which are also a part of bid documents), were provided, it is clear that the Drag Connection shear plates steel connections (angle and centering) to the castings would need to be cut by the contractor prior to fit-up for welding. The design intent was clearly depicted on the contract documents. The angle of the connection pads (F5 and F6) are provided in the cast node schedules; refer to 1/S1-5121, for example. Each cast node type is used in multiple framing locations as noted on the cast node designation sheets (S1-5110, S1-5120, and S1-5130). The cast node shop drawings, which are also a part of the bid documents, show that the face of the drag pads are cast perpendicular to the axis of the pad and were provided in the as cast condition (not a machined condition). From the framing plans (Sheets S1-2502 thru S1-2507), Skanska should be able to see that the diagonal beams are framed into the same cast node type at various angles, resulting in a condition that requires some connection plates to be appropriately fabricated. There are many details in the structural set which graphically show the connections not to be concentric and normal to the drag pads on the bus deck nodes. Detail 1 on S1-5030 is one example where the design intent is visually evident without having to correlate information on more than one drawing.

T-1079 **Bracing removal-rebracing sequence on the East end of Zone 4** **Closed** **01/02/2014** **01/12/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Bracing removal/re-bracing sequence on the East end of Zone 4
WOJV is proposing the following sequence for the re-bracing/ Bracing removal for the East side of Zone 4 See sketches SK1, 2, 3 & 4 attached.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The propopsed method is not acceptable. Both sets of diagonal bracing, on the north side and the south side, and the first few cross lot braces work in conjunction as a group. Any one part cannot be removed until the rebracing is complete for the entire group.

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	For level D strut removal see sequence on attached sketch SK1. WOJV is proposing to remove level D bracing in two defined areas. 1. Remove level D Cross lot struts and walers from west to east direction once the mat slab beneath has been place, cured and reached adequate strength. 2. Remove level D struts and walers from south east and north east corner's once the mat slab beneath has been place, cured and reached adequate strength. For level C strut removal see sequence and defined areas on attached sketch SK2 1. Remove level C Cross lot struts and walers from west to east direction once the walls and RB re-bracing is installed and stressed. 2. Remove level C struts and walers from South East and North West corner's once the walls and RB re-bracing rakers beneath are installed. For level B strut removal see sequence and defined areas on attached sketch SK3 1. Remove level B struts and walers from west to east direction once the lower concourse slab beneath has been place, cured and reached the required design strength. 2. Remove level B struts and walers from South East and North West corner's once the lower concourse slab beneath has been place, cured and reached the required design strength. For level A strut removal see sequence on attached sketch SK4 1. Remove level A cross lot struts and walers from west to east direction once the RA re-bracing is installed and stressed. 2. Remove level A struts and walers from South East and North West corner's once all the RA re-bracing rakers beneath have been installed. Please confirm if this sequence would be acceptable						
T-1080	**SSS - Double Angle Connection Clarification**	**Closed**	**01/02/2014**	**01/12/2014**	**01/13/2014**	**Potentially**	☐

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From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 250 SK1 & SK2 and confirm the 3/4x6 stiffener per 1/S1-7604 may be omitted on the noted side as it will foul the double angle connection for the W33x130.

If not, supply an alternate detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to omit the stiffener on one side of the beam as noted in the RFI

T-1081 **BGP -Shear Wall Horizontal Hooks Near GL 1.4-K** **Closed** **01/03/2014** **01/13/2014** **01/07/2014** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

At the shear wall (first lift) near grids 1.4/K, the tails to the horizontal hooks which terminate at the columns were erroneously cut in the field and no longer provide the proper development length. See
the attached sketch for specific portions of the shear wall affected. Per field discussions with the TT engineer on site, Gerdau proposes to leave the hooks that have been cut "as-is" and to add a
standard 180° #9 hook to allow for proper development of the horizontal bar.
Please confirm if this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/6/2014
RESPONSE:
Confirmed

T-1083 **BGP - Geothermal Riser Pressure Gauge Location** **Closed** **01/06/2014** **12/30/2013** **01/17/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Previous geothermal fields and risers had a "cat walk" behind the risers at grade. Additional pipe and 90s were added to bring the gauges up to grade to allow for pressure monitoring from this "catwalk." At fields 09-15 no cat walk exists, thus no location to access these gauges from.

Please provide the location for the geothermal riser gauges for inspection from Field 09 through Field 15.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/15/2014
RESPONSE:
Gauges shall be located at the top of the risers. Monitoring of the gauges to confirm that the piping system has not been damaged is the means and methods of the contractor.

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T-1084	**SSS - Connection Clarification**	**Closed**	**01/06/2014**	**01/16/2014**	**01/17/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 250 SK1 & SK2 and supply the welding for the noted connection as S+t per 8/S1-5012 will result in 1 5/8" fillet welds.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Weld size shall be as detailed on 8/S1-5012. As noted on the detail, "s" is per schedule on 1/S1-5011, and "t" is the thickness of the shim plate.

T-1085	**SSS - Framing Clarifications**	**Closed**	**01/06/2014**	**01/16/2014**	**01/17/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 252 SK1 & SK2 for items 1 & 2:

1.) Confirm the 3" drag plate typically extends from the column to the W24x55 as shown.
2.) Confirm detail 8/S1-5020 may be modified as shown to suit the actual condition. If not, supply a new detail showing the drag plate in its sloped position.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Confirmed.

2) Confirmed.

T-1086	**SSS - Missing Brace Locations**	**Closed**	**01/06/2014**	**01/16/2014**	**01/17/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 253 SK1 & SK2 and please confirm the kicker brace locations as shown are acceptable. If not, supply the location from a grid line.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CONFIRMED

T-1087	**SSS - Connection Clarifications for Skewed Beams**	**Closed**	**01/07/2014**	**01/17/2014**	**01/17/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference details 7 & 8/S1-5010 and CD RFI 094 SK1 to SK7 for clarifications required on skewed beam connections as noted below.

1.) Refer to S1-2303 and CD RFI SK1 indicating an

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) No, it is not typically acceptable to replace one of the double angle connection with a shear plate connection. Shear plate connection might be able to use for some short span beam if specifically approved during the shop drawings review. The conflict shown

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example location where a skewed beam and standard beam connection occur at the same location on the support beam. As noted on CD RFI 094 SK4, the connections foul at this typical condition. Please confirm it is typically acceptable to replace one of the connections with a shear plate connection per detail 1/S1-5011 or supply an alternate typical solution.

2.) Refer to S1-2303 and CD RFI SK1 indicating an example location for two-sided skewed beam connections. As noted on CD RFI 094 SK5, the non -symmetrical bolt locations in detail 7/S1-5050 will not work at two-sided connections. Please confirm it is typically acceptable to locate the bolts as shown at two-sided connections or provide an alternate detail for this condition.

3.) Refer to S1-2305 and CD RFI SK2 indicating an example location of a two-sided skewed beam connection. As noted on CD RFI 094 SK 6, the non-symmetrical bolt location in detail 8/S1-5010 will not work at two-sided connections. Please supply a typical alternate detail for these conditions.

4.) Detail 8/S1-5010 shows the shear plate on the obtuse side. Confirm it is acceptable to locate the shear plate on the acute side for beam erection access purposes as noted on CD RFI 094 SK 6.

5.) Refer to S1-2303 and CD RFI 094 SK3 indicating an example location where details 7 & 8/S1-5010 occur at the same location based on the angles of the skewed beams. Please confirm that one of the connections may be typically replaced with a skewed shear plate per 1/S1-5011 to avoid the conflict shown on CD RFI 094 SK7, or supply a new typical alternate detail.

on CD RFI 094 SK4 might be resolved by using an bent plate with longer leg.
2) Confirmed.
3) At this specific location, A single shear plate connection per Detail 1/S1-5011 may be used for W16 x 26 beam.
4) Confirmed.
5) It is not typically acceptable to replace one of the double angle connection with a shear plate connection. Shear plate connection might be able to use for some short span beam if specifically approved during the shop drawings review.

T-1088 **BGP - Shear Wall Corbel Tie Spacing at W190C, D and E** **Closed** **01/07/2014** **01/17/2014** **01/08/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

In the first lift (up to EL -20.56) of the 190C to 190E shear

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is acceptable to leave the corbels as installed (5" tie

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walls, the #6 ties were installed at 5-inches O.C. instead 4-inches O.C. Please confirm if it is acceptable to leave the corbels as-installed. If not acceptable, Gerdau proposes to install additional T9 (hairpin) ties between every 4ea - #6 ties on the Western face of the corbel. See attached SCCI sketch SK-RFI 410 for details.

Please confirm if this is acceptable.

spacing) without adding additional hairpins.

T-1089 **BGP - Concourse Beam Added Bar Congestion at GL 10.1 to 12** **Closed** **01/07/2014** **01/17/2014** **01/20/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Robert Kjome

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to drawing S1-2203, S1-3400.

In the lower concourse, where four beam pairs consisting of C68 and C69 between GL 10.1 and 12, the added short bars at the top and bottom intrude into the laps of typical bars. This would mean per plans, SCCI would have 14 bars at the top location and 18 bars at the bottom location. Gerdau proposes to move the additional short bars into their own layer to alleviate congestion. Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor proposal to place additional short bars at B68 and B69 beams between GL10.1 and 12 in a second layer is acceptable. Place bars in second layer with 1.5" clear distance between the 1st layer.

T-1090 **BGP - Elevator Opening Embed Dimensions at GL 2/E, 8/E and 23/E** **Closed** **01/07/2014** **01/07/2014** **01/20/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawings: SK.A-2916, SK.A-2917, SK.A-2921, Sl-7004, Sl-7104, Sl-7111 , and S 1-7600.

Details for the pits located at grid lines 2/E, 8/E, and 23/E are missing dimensions. Please provide dimensions for installation of the embed per detail 11/S1-7600 at above referenced grid lines.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached sketch "20140117 RFI T-1090 SSS sketch comments" for the requested dimensions for installation of the embed plate.

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T-1091	**SSS - Transfer Girder Rebar Hole Spacing**	**Closed**	**01/08/2014**	**01/18/2014**	**01/24/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

See attached CD RFI # 258 SK1 to SK3 for items 1 to 3:

1.) The spacing for the #4 stirrups is given as 5 1/2" & 8". Confirm 5 1/2" is correct.

2.) Confirm the first holes for the #4 stirrup may be located 5 3/4" from the end of girder (centered between the headed studs).

3.) The 2" dia. holes for the #4 stirrups foul the stiffeners at (4) locations. Confirm it is acceptable to move the holes as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Spacing shall be 8" as shown on 5/S1-3705.

2). Confirmed.

3). The hole may be moved slightly to clear the stiffeners. Holes at the top and bottom shall be in line, so where one hole is moved, the hole on the opposite side shall be moved accordingly also.

T-1092	**SSS - Ground Level Cast Nodes**	**Closed**	**01/09/2014**	**01/19/2014**	**01/24/2014**	**Potentially**	☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

In recent meetings, Webcor/Obayashi has made it clear that the same Ground Level Cast Node geometry will be used at multiple locations even though the angle of the lower Basket Columns changes at each Node. This adds a level of complexity and cost to the joint between the Cast Node and Basket Column Pipe due to the kink imposed on that joint as a result of the following:

- The Lower Pipe Columns will be required to be limiter cut" instead of a traditional square cut end. (Please note Spec Section OS 10 00, paragraph 3.2.M.1 states 11Bearing ends of columns shall be milled or sawn square perpendicular to axis of the column.")
-Miter cut Pipe will have an ellipse cross section and will not match the circular Casting Node.
- Backing bars used to full pen weld the Pipe Column to the Cast Node would need to be custom machined to match the ellipse Pipe and circular Node to eliminate weld gaps. This significantly increases the complexity and risk for successfully welding the joint, and reduces the adjustability for fit up of these joints in the shop and the field.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Contract, RFIs shall not be used as a vehicle for requesting cost and schedule increases which appears to be the purpose of this Skanska/OIW statements; "A negative response will result in a cost increase and a time increase" are examples.

The contract drawings at bid time clearly showed that the centerline of the pipe is not in line with the centerline of the cast node nozzle, and that the cast nodes were not miter cut to be perpendicular to the incoming pipe. The reference to Spec section 05 10 00 noted in this RFI regarding bearing ends does not apply for this condition as the pipe to cast node connections are not "bearing" connections, they are a fully welded connections as shown on the contract documents.

This "kink" between the bottom-side of the ground floor basket column and the top-side of the ground floor cast node - resulting from the building's geometry and the use of the same cast node type in multiple locations - can be accommodated by miter cutting either the pipe or the cast node. However, the

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This kink can be accommodated either by machining the nozzle of the Cast Node to be perpendicular to the pipe, or by machining the pipe end at a mitered angle to match the Cast Node.

Since this joint on the Cast Node is already being machined, OIW believes that the more desirable and less expensive option is to machine the nozzle of the Cast Node perpendicular to the axis of the Basket Column Pipe. As the nozzles will each be custom machined regardless, machining them to match the pipe axis should be a relatively low cost change.

OIW requests that the nozzles of each Ground Level Cast Nodes to be machined perpendicular to the axis of the adjoining lower Basket Column Pipe.

A negative response will result in a cost increase and a time increase.

contract documents, including those cast node shop drawings available during bid, clearly show that the ground floor cast nodes were not going to be miter cut, so miter cutting of the basket column pipe members by the Steel Contractor is necessary to accommodate the building's geometry.

Miter cut of the cast node is not acceptable architecturally. The specified miter angle of the pipe does not exceed 1.5-degrees in any location.. Even though Miter cut Pipe will have an ellipse cross section, the lips created by the ellipse cross section is very small (1/160"), which can be ground smooth as a part of weld grinding for meeting AESS requirements. Weld assist devices like backing bars, a contractor means and methods for joints fit up in the shop and the field, are the responsibility of Skanska.

T-1093 **BGP - Foundation Wall Mix Placed in Shear Wall** **Closed** **01/09/2014** **01/19/2014** **01/14/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference TG06.0 technical specs section 033020.2.1 and cast-in-place mix designs submittal numbers: TG0600-203 (Foundation Walls) and TG0600-204 (Slabs, Beams and Shear Walls).

Foundation Wall cast-in-place mix satisfies all requirements prescribed in table 2-1 '"Concrete Properties"' (033020.2.1) for the Shear Wall cast-in-place mix design. In order to limit site congestion (1 concrete pump vs. 2 concrete pumps) and to aid in logistic coordination between trade subcontractors (BBII Steel offhaul and/or bracing/rebracing work and SCCI concrete placing activities). SCCI is proposing to utilize the Foundation Wall mix when placing the shear walls. Per the project schedule there will be instances in which a foundation wall and shear wall that are in close proximity, are to be poured on the same day. If the same mix is

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor-proposed mix design variance for convenience as proposed in RFI is acceptable.

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approved to be used for both types of walls, one pump can be utilized vs. two.

Is this proposed mix design variance acceptable?

T-1094 **SSS - End Transfer Girder Details at GL16G** **Closed** **01/09/2014** **01/19/2014** **01/16/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 263 SK1 to SK3 for items 1 to 6:

1.) Supply the slope angle for MFB1.
2.) Confirm the noted information is the correct information to determine the top end of MFB1.
3.)
Supply the noted dimension (to be used to locate PL 2 1/2 x 9 x 2'-6).
4.) Confirm the braces shown on S1-2304 (SK1) may be located as shown to avoid fouling the stiffeners in Girder TR16.
5.) Supply the underside of slab dimension at the location of the brace per item 4.
6.)
Supply the underside of slab dimension at the location of t he brace per item 4.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). The slope of the beam can be calculated from the Top of Slab Elevation Given at each end of the beam.
2). Confirmed.
3). Centerline of the welded coupler is at the elevation that is equal to the bottom of the beam minus the clear cover (see 5/S1-3600) minus diameter of the stirrups minus 1/2 of the rebar diameter.
4). Confirmed.
5). Underside of the slab is 10" below the top of slab, which can be calculated based on the spot elevations given (also see response #1).
6) See response #5.

T-1095 **SSS - End Transfer Girder Details at GL14G** **Closed** **01/09/2014** **01/19/2014** **01/16/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 262 SK1 to SK3 for items 1 to 6:
1.) Supply the slope angle for MFB4.
2.) Confirm the noted information is the correct information to determine the top end of MFB4.
3.)
Supply the noted dimension (to be used to locate PL 2 1/2 x 9 x 2'-6).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). The slope of the beam can be calculated from the Top of Slab Elevations given at each end of the beam.
2). Confirmed.
3). Centerline of the welded coupler is at the elevation that is equal to the bottom of the beam minus the clear cover (see 5/S1-3600) minus diameter of the stirrups minus 1/2 of the rebar diameter.

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4.) Confirm the braces shown on S1-2304 (SK1) may be located as shown to avoid fouling the stiffeners in Girder TR14.
5.) Supply the underside of slab dimension at the location of the brace per item 4.
6.)
Supply the underside of slab dimension at the location of t he brace per item 4.

4). Confirmed.
5). Underside of the slab is 10" below the top of slab, which can be calculated based on the spot elevations given (also see response #1).
6). See response #5.

T-1097 **SSS - End Transfer Girder Details at GL19.9 & 20.1G** **Closed** **01/09/2014** **01/19/2014** **01/16/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 264 SK1 to SK4 for items 1 to 8:

1.) Supply the slope angle for MFB1.
2.) Confirm the noted information is the correct information to determine the top end of MFB1.
3.)
Supply the noted dimension (to be used to locate PL 2 1/2 x 9 x 2'-6).
4.) The braces per 5/S1-5015 as shown on plan (SK1) will cross each other between Grids 19.9 & 20.1 as shown on SK3 & SK4. There is insufficient room on Girders TR19.9 & TR20.1 to accommodate these brace connections without the braces fouling each other.
Please work with SK3 & SK4 and provide a solution.
5.) Supply
the underside of slab dimension at the location of the brac e per item 4.
6.) Supply
the underside of slab dimension at the location of the brac e per item 4.
7.) Supply
the underside of slab dimension at the location of the brac e per item 4.
8.) Supply
the underside of slab dimension at the location of the brac e per item 4.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). The slope of the beam can be calculated from the Top of Slab Elevation at each end of the beam.
2). Confirmed.
3). Centerline of the welded coupler is at the elevation that is equal to the bottom of the beam minus the clear cover (see 5/S1-3600) minus diameter of the stirrups minus 1/2 of the rebar diameter.
4). The cross brace between 19.9 and 20.1 may be replaced by a single horizontal brace.
5). Underside of the slab is 10" below the top of slab, which can be calculated based on the spot elevations given (also see response #1)
6) See response #5
7) See response #5
8) See response #5

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T-1098	**SSS - End Transfer Girder Details at GL16C**	**Closed**	**01/09/2014**	**01/19/2014**	**01/16/2014**	**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

See attached CD RFI # 266 SK1 & SK2 for items 1 to 3:

1.)
Supply the location of the braces from grid 'C' considering the dimensions on TR16 shown on SK2 and the connection for the braces to the girder per 8/S1-5015.
2.) Supply
the underside of slab elevation at the brace located per di mension supplied in item 1.
3.) Supply
the underside of slab elevation at the brace located per di mension supplied in item 1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Brace may be similarly located per RFI T-1095 (Skanska RFI 338).

2) The bottom of slab elevation is 10" below the top of slab, which can be calculated using the spot elevations at each end of the beam given.

3) See response to item 2).

T-1099	**SSS - End Transfer Girder Details at GL14C**	**Closed**	**01/09/2014**	**01/19/2014**	**01/28/2014**	**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

See attached CD RFI # 265 SK1 & SK2 for items 1 to 3:

1.) Supply
the location of the braces from grid 'C' considering the di mensions on TR14 shown on SK2 and the connection for the braces to the girder per 8/S1-5015.
2.) Supply
the underside of slab elevation at the brace located per di mension supplied in item 1.
3.) Supply
the underside of slab elevation at the brace located per di mension supplied in item 1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). The braces may be connected to the first Transfer girder bottom flange stiffeners away from the column.

2). The bottom of slab elevation equal to top of slab (16.81' as noted on the plan) minus 10"

3). See response #2.

T-1100	**SSS - End Transfer Girder Details at GL19.9 & 20.1C**	**Open**	**01/10/2014**	**01/20/2014**		**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

See attached CD RFI # 267 SK1 & SK2 for items 1 & 2:

1.)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Supply the location of the braces from Grid C considering t
he dimensions on TR19.9 & TR20.1 per 3/S1-3705 as
shown on SK2 and the connections for the braces to the
Girders per 8/S1-5015.
2.)
Supply the underside of slab elevations at each brace loca
ted per dimensions supplied in item 1.

T-1101 **SSS - Connections for Rigging Schemes** **Open** **01/10/2014** **01/20/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Skanska is reviewing the rigging schemes required to erect the Transfer Girders, Built-up Columns and Tapered Roof Girders. Please confirm drilling holes for the bolted connection in the following members is acceptable so Candraft can incorporate them into the model as per:
1) Transfer Girders sketches R-1A & R-1B.
2) Built-up Columns sketches R-2A, R-2B & R-2C.
3) Tapered Roof Girders sketches R-5A & R-5B.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1102 **SSS - Type III Column Base Embedded Plate** **Closed** **01/09/2014** **01/20/2014** **01/10/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Webcor Construction LP Jeff Galoyan **Answered By:** Webcor Construction LP Gregory Kemerer

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Type III column base detail 8/S1-5051 indicates an embedded plate, as the package delineation line shows the ½" thick embedded plate is not in Skanska's scope of work. TG06 trade subcontractor will be required to coordinate locating the shear studs to clear the congested rebar at these locations. The embedded plates will be supplied and installed by others and Skanska will field weld the L4x3 to the embedded plate as indicated on SK1. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1103	**BGP - Increased Slump Specification Limit for Mixes with High-Range Water Redu**	**Closed**	**01/13/2014**	**01/23/2014**	**01/15/2014**	**Potentially**	

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference attached letter Authored by Robert Foley, CEMEX QC Manager, dated 1/2/2014 and TG06.0 technical spec section 033020.2.3.F.1.b.

SCCI and CEMEX are proposing the following guidelines regarding slump of cast-in-place mix designs that contain 30% or higher fly-ash (CM) and HRWR:

1. Maximum 8-inch slump will continue to be the target slump for delivery of concrete mixes with HRWR.
2. 9-inch and higher slump will be considered an action limit. Whenever slump of consecutive loads exceeds 9 inches, actions wiJI be taken to reduce subsequent slump measurements.
3. Batches with slump as high as 10.5 inches will be accepted provided the batch weights are evaluated to verify the batch did not include water content that exceeds mix design w/c ratio; and the concrete is not visibly segregating.

Are these revised guidelines acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/15/2014
RESPONSE:
The revised guidelines are not acceptable. Acceptability is governed by the limits in the approved mix design submittals and the project Specification within ACI 117 tolerances.

T-1104	**BGP - Increase Concourse Slab Maximum construction Joint Spacing**	**Closed**	**01/13/2014**	**01/23/2014**	**01/28/2014**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please reference TG06.0 contract specs section 033020.3.2.A.4, submittal TG0600-030.2 and attached drawing showing proposed CJ layout per variance below. SCCI is proposing to increase the allowable maximum construction joint spacing in the lower concourse slab:

With the use of currently approved Concourse Slab cast-in-place mix design, SCCI is proposing to eliminate every other construction joint. See attached pages for reference example. Maximum construction joint spacing would be 96-feet. Joint location will always land on wall joint location below per 033020.3 .2.A.4.

Construction joint layout submittal TG0600-030 will be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/27/2014
RESPONSE:
The contractor-proposed Lower concourse slab CJs presented in the RFI will be acceptable.

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revised and resubmitted to reflect any change made to currently approved layout.

Is this acceptable?

T-1105 **SSS - Elevator Rail Supports Erection Aids** **Closed** **01/14/2014** **01/24/2014** **01/27/2014** **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached CD RFI # 183.1 SK1A, SK1B, SK2A & SK2B for items 1 & 2:
1.) Confirm the elevator rail support connection with erection aids is acceptable as shown.
2.) Confirm the elevator rail support connection with erection aids is acceptable as shown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). a. Connections for elevator guide rail support (HSS Beams) are updated in the MEP/TE/SE/VT Issue for bid package dated 1/23/2014. Refer to the revised drawings in the package for guide rail support and their connection details.
b. Erection aids for elevator guide rail support are contractor's means and methods.
2). See response to item 1)

T-1106 **SSS - Pretensioned Rod Bearing Plate Hole Dia** **Closed** **01/14/2014** **01/24/2014** **01/24/2014** **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

With reference to detail 6/S1-5052 (attached) please review the following:

Due to the limited access at the top of the built-up TT please confirm it is acceptable to increase the diameter of the hole in the 4" bearing plate to the maximum allowable size of 3-3/4" as per ASIC table 14-2 (attached) to allow for additional tolerance and workability when installing the 2-1/2" diameter 18' rod. The oversized side hole will only be required at the 17 built-up TT locations and the 6x6x2" plate washer hole will remain the major diameter of the rod + 1/16".

Please confirm this proposal is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor proposed use of anchor bolt hole sizes per Table 14-2 of AISC Manual for the pre-tensioned rods in SLRS columns is not acceptable.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1107	**SSS - Connection Clarification at Roof Level GL 11**	**Closed**	**01/14/2014**	**01/24/2014**	**01/27/2014**	**Potentially**	☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

See attached CD RFI # 256 SK1 & SK2.

Due to the thick flanges of the W40x593, it is not possible to provide the required 10 bolts in the W36x160 per S1-5010.

Please confirm it is acceptable to provide 9 bolts as shown or supply a new detail.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

T-1108	**SSS - Edge of Slab Location Clarification**	**Open**	**01/14/2014**	**01/24/2014**		**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 261 SK1 to SK4:

S1-2503 (SK1) shows the beam as 9" from the edge of slab. 1/S1-7303 (SK2) shows the edge of slab as 31'-11 1/2 from Grid 11 but A1-2893 (SK3) shows the edge of slab as 31'-11 from Grid 11.

SK4 shows what is currently in the model.

Please advise of any correction that needs to be made in the model due to the discrepancy for the edge of slab location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1109	**SSS - Pretension Rod Finish Requirement**	**Closed**	**01/14/2014**	**01/24/2014**	**01/17/2014**	**Potentially**	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

With reference to pretensioned rods required as per schedule 3/S1-5052 please review the following:

As the pretensioned rods on the cruciform columns are to receive a fireproof coating please confirm the rods are to be supplied
plain (no finish required) as per General Note SS-10 -

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the pre-tensioned rods are to receive fire proofing; they shall not be galvanized.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

All steel members and embedded steel angles and plates not painted, coated with fireproofing, nor protected by concrete cover, shall be hot-dipped galvanized.

Please confirm this is acceptable.

T-1109.1 **SSS - Pretension Rod Finish Requirement** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

The response to RFI T-1109 (attached) indicates that the pretensioned rods are to receive fireproofing.

1) Please provide the UL assembly for the rod fireproofing.
2) Please confirm that the rods will be Sprayed Fire Resistive Materials SFRM-1 to match the column fireproofing system.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

T-1110 **SSS - Welded Reinforcement at Light Column Tendons** **Open** **01/14/2014** **01/24/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference details 1 and 5 on S1-6008 which indicate that welded reinforcement bars are "to be determined by post-tensioning system supplier." Per detail 4/S1-6008, the PT anchor bolt supplier is Dywidag.

Per the email attached, Dywidag's representative states that additional reinforcing bars are not required provided the concrete strength is sufficient and that the anchorages are not located particularly close to an exterior concrete face.

Based on the maximum permissible jacking load and associated maximum bearing stress of 3.8ksi, please confirm the concrete strength is sufficient and that the reinforcing bars can be eliminated at the Light Column

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

tendons.

T-1111 **SSS - Framing & Connection Clarifications** **Closed** **01/14/2014** **01/24/2014** **01/28/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 254 SK1 to SK4 for items 1 to 7:
1.) It appears the noted section references do not apply on the noted level of steel but the detail should be applied on S1-2403. Work with SK1 & SK4 and confirm or clarify how the detail is to be applied at this level.
2.)If detail 1/S1-7661 is to be applied on the noted level, please respond to the following:
a.) Confirm 1/S1-7661 applies within the 10'-11 area.
b.) Supply information for how to apply 1/S1-7661 at the 2 1/4" slab transition per A1-2883 as doc umented in RFI T-0963 (SK 247 & CD 196)
3.)Confirm noted dimensions are correct.
4.) Confirm the L8x8x3/4 does not need to be welded to the plate and/or to the L8x4x1/2. If yes, supply the welding requirement.
5.)The noted information is not clear. Please supply information for the plate and welding.
6.)Confirm the horizontal leg of the L8x4x1/2 does not need to be welded to the beam flange. If yes, supply the welding requirement.
7.)Confirm a slab closure plate per 8/S1-5000 is required on center of beam or clarify the edge of slab along this beam.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed that Section 1/S1-7661 is to be applied to S1-2403.

2). a. Confirmed.

b. See response to Item 3). The distance from EOS to centerline of the beam varies.

3). See the attached sketch RFI T-1111 SSS-Framing Connection Clarification -AAI.pdf for the dimensions requested.

4). Confirmed

5). Use 3/8" plate with weld to beam flange per Detail 8/S1-5000.

6). Provide CJP weld the horizontal leg of L8x4 to beam flange.

7). Confirmed.

T-1112 **SSS - Detail Clarifications** **Closed** **01/14/2014** **01/24/2014** **01/28/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See att ached CD RFI # 259 SK1 & SK2 for items 1 to 3:
1.) The 1" MAX is not achievable with the hole locations shown. The actual gap will be 1 13/16 as shown on SK2.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed.

2). Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Confirm this is acceptable.
2.)The stitch plate will foul the web of the WT20x105.5 above if it is located at mid-span. Confirm it is acceptable to locate the stitch plate 7/16" clear of the WT as shown on SK2.
3.)It is not clear what is meant by the noted size of the shim plates. Confirm it is acceptable to locate the corner of the MC10 2 7/16" below the top of the WT20x105.5 to clear the "k" and to have the shim plates match the profile of the MC10 as shown on SK2. The shim plate size is 10" x 2'-0 1/2.

3). Confirmed.

T-1113 **SSS - Light Column Template Air Gap** **Closed** **01/14/2014** **01/14/2014** **01/17/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Installation of the template at the base of the light column DYWIDAG anchor rod will result in a 1/16" air gap (see SK1). Please confirm it will be acceptable to fill this air gap with either Teflon tape or caulking.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The proposed template detail is ok. SBP has no objections to anything below the loaded anchor.

T-1114 **BGP - Concrete Samples for Columns** **Closed** **01/15/2014** **01/25/2014** **01/21/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Spec: 03 30 20-3.a.

"The TJPA Representative shall conduct tests of concrete as follows:

a. Testing frequency: Sample sets for all tests listed below of each concrete design mix
placed each day shall be taken not less than once a day, nor less than once for each
100 cubic yards of concrete, nor less than once for each 5000 square feet of surface
area for the mat, cast-in-place formed concrete

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/17/2014
RESPONSE:
The requirement that samples be taken for every column may be relaxed to a single sample set for every two columns placed contemporaneously with the same pump.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

slabs or walls. Additional tests shall
be performed if deemed necessary by the TJPA Representative. Sample each
column, regardless of other frequencies listed above."

We request that the last sentence "Sample each column, regardless of other frequencies listed above", be deleted. The current testing of columns would fall under the statement to test "..not less than once a day, nor less than once for each 100 cubic yards". As the current schedule shows two columns to be poured per day, this will produce one set per day for testing.

T-1115 **BSE -Alternate Micropile Method in Buttress Area** **Open** **01/16/2014** **01/26/2014** **Potentially** ☐

From: Balfour Beatty Infrastructure, Inc. Kelly Phariss **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author:

REQUEST:

DTDS is concerned about delays and extra costs resulting from drilling Micropiles adjacent to buttress piles from Gridlines 26.5 to 30. As stated in our Contract Change Order request (CCO #04) regarding "Final Micropile Layout - Additional Micropiles" (attached for reference), drilling for the micropiles may encounter overbreak pile concrete and grout placed during buttress pile remediation. The current drilling system cannot be used to drill through the pile overbreak and/or remediation grout. The reduced pile spacing from 10 feet on center to 5 feet and less may also cause problems such as communication between piles.

Significant additional costs and schedule delays will result should DTDS have to change our procedure and/or equipment to drill through buttress pile concrete and/or remediation grout. Delays will also be realized should DTDS have to change our drilling sequence to mitigate problems that may arise from the reduced pile spacing.

Should detrimental issues arise, DTDS proposes to drill,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

install, and grout micropile dowels in the center of the existing buttress piles as an alternative to drilling adjacent to buttress piles. A micropile dowel could take the place of a micropile as necessary. A dowel would consist of the same #20 Gr. 80 reinforcing bar used for the micropiles. A six- inch diameter, 20 foot long hole would be drilled in the center of the buttress pile. An additional drill rig will be required to perform the drilling. A 25' bar would be set with centralizers and tremie grouted with the same grout used for the micropiles. Based on an assumed minimum Buttress pile concrete and grout strength of 3,000 psi, the developmental length (ld) of a #20 bar is 182.5 inches (15.2 feet). 20 feet embedded would develop the yield strength of the #20 bar (393 kip) and exceed the design micropile load of 308 kips.

ld = (80,000 psi/ (20 * sqrt(3000 psi))*2.5 in = 182.5 in.

Accepting this alternative would mitigate delays and extra costs that will result should buttress pile concrete and/or grout be encountered while drilling adjacent to these piles.

Please confirm that this alternative micropile procedure is acceptable.

T-1116 **BSE - Micropile Removal and Relocation in Buttress Area** **Open** **01/16/2014** **01/26/2014** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Balfour Beatty Infrastructure, Inc. Kelly Phariss

REQUEST:

WOJV recieved FO T-00008 9/07/2012 which added micropiles within the footprint of the buttress shafts. RFI T-0323.1 returned 10/24/12 directed BBII to install buttress shaft E4, which is in direct conflict with Micropile E520.

BBII proposes to:

Option 1. Remove Micropile E520
Option 2. Drill Micropile E520 into the center of the buttress shaft as proposed in RFI T-1115
Option 3. Relocate Micropile E520 to a location provided by the design team.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Also, BBII is requesting that they be permitted to relocate Micropile E519, 1' to the South, to allow further clearance form Buttress Shaft E4.

T-1117 **BGP - Geothermal Trench Backfill and Compaction Requirements in Zones 3 & 4** **Closed** **01/16/2014** **01/26/2014** **01/24/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Webcor Construction LP Jackson Tukuafu

REQUEST:

There are areas in Zone 3 (and perhaps in Zone 4) that Geothermal trenches will be trenched through that Arup identified as unsuitable soils (high in bay mud) , which is of such nature as to be incapable of being compacted to specific density using ordinary methods of optimum moisture content. Additionally, there are areas in Zone 3 (and perhaps in Zone 4) that Geothermal trenches will be trenched through that Arup identified as in-situ suitable, which are incapable of being compacted.

- Spec. 23-57-34 Ground Loop Heat Exchanger states "placing and compacting soils the loop installation, the trenches shall be back filled per IGSHPA with loose soil minimizing air gaps or voids and then marked with warning tape. After bedding around the loop and header piping, the backfill shall be watered to settle the loose soil to ensure there are no air gaps along the length of the pipe."

- Spec. 31-23-34 Trenching and Backfill states "All backfill will be placed in horizontal layers not more than (8) inches thick before compaction, and each layer shall be satisfactorily compacted by mechanical means. Flooding or jetting will not be allowed. Compact soil to not less than 95 percent maximum dry density according to ASTM D1557.

Is the following procedure acceptable for placing and compacting soils in the Geothermal Piping trenches in the areas with unsuitable soils (high amounts of bay mud), and suitable in-situ non-compactable as identified by

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/23/2014
RESPONSE:
Backfill with Native Soil to replace the unsuitable material is acceptable to WSP. Reference RFI 356.1 for relaxation of wetting requirement.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Arup?
1. After the Geothermal piping is installed and tested, these trenches will be filled with available approved suitable materials from onsite excavations or 300 psi CLSM as approved by the TJPA Rep.
2. Geothermal piping trenches soils will be placed per Geothermal Spec. 23-57-34 Ground Loop Heat Exchanger which states "the trenches shall be back filled per IGSHPA with loose soil minimizing air gaps or voids and then marked with warning tape."
3. Soil bedding and backfill around the loop and header piping, shall be placed to ensure there are no air gaps along the length of the pipe (water will not drain well, so will be used sparingly and only if necessary).
4. All backfill will be placed in horizontal layers not more than (8) inches thick before compaction, and each layer shall be satisfactorily compacted by mechanical means (e.g. pogo stick/power puff tools) .
5. Flooding or jetting will not be allowed.
6. Soils will be compacted using steps above and best construction practices.
7. Trench fill and adjacent areas will not be tested to verify the "not less than 95 percent maximum dry density" according to ASTM D1557. The TJPA Reps will not perform density and moisture content tests specified in the Trenching and Backfill Spec. 31-23-34. In lieu of testing, the TJPA Geotechnical Inspection and Testing Agency will perform full time inspection of the fill and compaction process to verify procedure steps are followed, the suitability of the fill and that soils compaction is achieved.

T-1118 **BGP - Knockout Wall Neoprene Pad Width Clarification** **Open** **01/17/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to attached drawing S1-3204.

Details 1, 2, and 4 on S1-3204 call out a 1/4-inch x 8-inch continuous neoprene pad to be placed between the shear wall pilaster and the knockout wall. The bearing surface of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

the pilaster is 12-inches, so the 8-inch pad will no adequately cover the bearing surface.

Please confirm that this is the designer's intent. If not, SCCI proposes using a 1/4-inch x 12-inch continuous neoprene pad to provide more adequate coverage of the bearing surface.

T-1119 **BGP - Column Steel Jacket Details** **Closed** **01/17/2014** **01/27/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please refer to submittal package TG0600-905 and RFI T-0693 regarding the "steel jackets" that certain columns are to receive.

1. Please clarify "Coordination" notes shown on attached excerpt drawing S101.0 of TG0600-905 by providing applicable details that show the steel jackets. The applicable architectural drawings currently in the Construction Drawing Set dated 07/17/2013 - Issued for Construction do not show steel column jackets. However, similar drawings issued in Issued For Bid - Addendum #1 dated 12/13/13 (not issued to construction) appear to show column jacket and details. See attached drawing A1-2103 from each drawing update set.

2. Please provide further details that SCCI should be aware of when it comes to these steel jackets and columns to be constructed, including but nol limited to, items embedded in the columns that will utilized for steel jacket construction

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
1/27/2014
RESPONSE:
1. Contractor to coordinate surface mounted boxes and embedded conduit routing for columns that receive steel jacketing (ref to TG0600-905 and RFI T-0693).
2. Refer to detail 6/S1-3503 for structural details pertaining to steel jackets issued with ASI 106 dated 09/20/2013. Refer to the following SKA-2922 to SKA-3003 for locations and details of columns with steel jacketing.

T-1120 **BGP - Horizontal Hooks in Shear Walls 2nd Lift and Above** **Closed** **01/17/2014** **01/27/2014** **01/20/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please refer to attached drawing 4/S1-3261.

Please confirm if it is acceptable to replace the shear wall horizontal bars which have a 90-degree hook with a 180-degree hook. See attached drawing for more details. This change will only be applied to the second lift of shear walls and above (approx. EL. -20.56 and above).

George Metzger
1/20/2014
RESPONSE:
Contractor proposal of 180deg hooks for shear wall horizontal bars is acceptable.

T-1121 **SSS - Bus Deck Level Edge of Slab Plate Clarification** **Open** **01/17/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI 233 SK1 to SK3 for reference.

After reviewing the structural steel documents for TG 07.1R, a detail is not provided for deck support around the bus deck level cast nodes. Please confirm that the intent is to utilize, 12 gauge sheet metal, in these areas as shown on 1/S1-5001. The sheet metal will follow the contour of the cast node, providing a 1" gap per A1-2893 (SK2).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1122 **SSS - Edge Plate Detail at Steel Drag Beam** **Open** **01/17/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Reference detail 4 on S1-5022 which indicates that where "S" is less than or equal to 3", a double bent plate is to be used. Based on the information provided in SK RFI 266.1 SK2, this cannot be achieved, as the minimum overall height for a Z angle is 4" and the minimum thickness for a Z angle is ½".

1.) Please advise if it is acceptable to use the detail approved in RFI T-1032 (for sloping conditions), shown on SK RFI 266.1 SK1, at all locations where "S" is less than 4".

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2.) Please advise if it is acceptable to use a Z angle at all locations where the "S" dimension is greater than or equal to 4" and the required thickness is ½", in lieu of the bolted connection.
3.) Please advise if it is acceptable to use the detail approved in RFI T-1032 (for sloping conditions), shown on SK RFI 266.1 SK1, at locations where "S" is greater than or equal to 4" and the required thickness is 3/8", in lieu of the bolted connection.
4.) Note that based on the bending radius and edge distances shown in 4/S1-5022, the minimum height for bolted connections is 4 ¾" as indicated on CD RFI 215.1 SK1 attached. If the bolted connection is required, please verify the maximum height "S" for the bent plate detail in 4A/S1-5022 may be increased to 4 ¾".

T-1123 **SSS - End Transfer Girder Details at GL 7C** **Open** **01/17/2014** **01/27/2014** **Potentially** ☐

From: Skanska USA Civil West California Dis Ryan Clayton **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author:

REQUEST:

See attached CD RFI # 268 SK1 to SK3 for items 1 to 4:
1) Confirm the noted are acceptable location dimensions f or the headed studs per 7/S1-3702 SIM.
2) Confirm the noted are acceptable location dimensions f or the 2" dia. holes per 7/S1-3702 SIM.
3) Supply the location of the 2" dia. holes from top of girde r as shown.
4) Confirm the headed studs and 2" dia. holes may be mo ved as necessary to avoid fouling the stiffeners.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1125 **BGP - Glass Guard Rail Embed A529 Grade 55 Steel in Lieu of A36** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

Please confirm it is acceptable to use A529 Grade 55 steel in lieu of A36 steel for the 3/8 x 7 flat bar portion of the glass guard rail embeds as shown on detail 7 of S1-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3410.

T-1126 **SSS - End Transfer Girder Details at GL 6C** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 269 SK1 to SK4 for items 1 to 7:
1) Supply the location of the braces from Grid C considering the end dimensions of TR6 shown on SK2 & SK4 and the
connection for the brace to the Girder per 8/S1-5015.
2) Supply the underside of slab elevation at the brace located per dimension supplied in item 1.
3) Supply the underside of slab elevation at the brace located per dimension supplied in item 1 .
4) Provide the noted dimensions to locate the 2" dia. holes.
5) Provide locations for the 2 1/2" dia. holes from center of TR6 and from top of TR6.
6) Provide dimension to locate the 2" dia. holes.
7a) Confirm it is acceptable to move the headed studs or rebar holes as necessary to avoid fouling the stiffeners.
7b) Provide the minimum clearance between the stiffener and the headed studs.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1127 **SSS - End Transfer Girder Details at GL 4C** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 270 SK1 to SK3 for items 1 to 7:
1) Supply the location of the braces from Grid C considering the end dimensions of TR4 shown on SK2 and the
connection for the brace to the Girder per 8/S1-5015.
2) Supply the underside of slab elevation at the brace located per dimension supplied in item 1.
3) Supply the underside of slab elevation at the brace

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

located per dimension supplied in item 1.
4) Provide the noted dimensions to locate the 2" dia. holes.
5) Provide locations for the 2 1/2" dia. holes from center of TR6 and from top of TR6.
6) Provide dimension to locate the 2" dia. holes.
7a) Confirm it is acceptable to move the headed studs or rebar holes as necessary to avoid fouling the stiffeners.
7b) Provide the minimum clearance between the stiffener and the headed studs.

T-1128 **SSS - End Transfer Girder Details at GL 2C** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 271 SK1 to SK3 for items 1 to 7:
1) Supply the location of the braces from Grid C considering the end dimensions of TR2 shown on SK2 and the
connection for the brace to the Girder per 8/S1-5015.
2) Supply the underside of slab elevation at the brace located per dimension supplied in item 1.
3) Supply the underside of slab elevation at the brace located per dimension supplied in item 1 .
4) Provide the noted dimensions to locate the 2" dia. holes.
5) Provide locations for the 2 1/2" dia. holes from center of TR6 and from top of TR6.
6) Provide dimension to locate the 2" dia. holes.
7a) Confirm it is acceptable to move the headed studs or rebar holes as necessary to avoid fouling the stiffeners.
7b) Provide the minimum clearance between the stiffener and the headed studs.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1129 **SSS - End Transfer Girder Details at GL 5C** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

See attached CD RFI # 273 SK1 to SK4 for items 1 to 3:
1) Confirm the noted dimensions for locating the headed studs are acceptable or supply alternate dimensions.
2) Confirm the noted dimensions for locating the 2" dia. holes are acceptable or supply alternate dimensions.
3a) Confirm it is acceptable to move the headed studs or rebar holes as necessary to avoid fouling the stiffeners.
3b) Provide the minimum clearance between the stiffener and the headed studs.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

T-1130 **SSS - End Transfer Girder Details at GL 3C** **Open** **01/21/2014** **01/31/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

See attached CD RFI # 274 SK1 to SK4 for items 1 to 4:
1) Supply the location for the holes in the stiffeners (information not shown on S1-3600):
   a) Dimensions from center of TR3
   b) Dimension from top of bottom flange of TR3
2) 4/S1-3707 shows 5 1/2" and 6/S1-3702 shows 6" spacing for the headed studs. Confirm 5 1/2" in acceptable.
3) It is not clear where the 2" dia. holes are to be located. 4/S1-3707 shows the concrete extending to the bottom of TR3 and 6/S13702 shows the concrete stopping above the top of the boittom flange of TR3. Please confirm the location of the 2" dia. holes as shown on SK3 are acceptable or supply the location dimensions.
4a) Confirm it is acceptable to move the headed studs or rebar holes as necessary to avoid fouling the stiffeners.
4b) Provide the minimum clearance between the stiffener and the headed studs.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

T-1131 **SSS - Transfer Girder Shear Details at GL 1.4** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California DisRyan Clayton

REQUEST:

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See attached CD RFI # 275 SK1 to SK3 for items 1 & 2:
1) Supply dimensions to locate headed studs at Grids 'D' & 'F'.
2) Supply dimensions to locate headed studs at Grids 'D.4' & 'E.6'.

T-1132 **SSS - End Transfer Girder Details at GL 1.4C** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attached CD RFI # 276 SK1 to SK3 for items 1 to 3:
1) Confirm it is acceptable to locate the headed studs as shown or supply alternate dimensions.
2) Confirm it is acceptable to locate the rebar holes as shown or supply alternate dimensions.
3) Confirm it is acceptable to move the noted rebar hole as necessary to avoid fouling the stiffener.

T-1133 **SSS - Top of Slab Elevation Clarification** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attached CD RFI # 278 SK1 & SK2:

The noted elevation on S1-2304 (SK1) is shown as 18.63' on A1-2864 (SK2) with a slab elevation transition as shown. Confirm A1-2864 is correct.

T-1134 **SSS - Transfer Girder Web Plate Detail at GL 9.9 & 10.1** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See attached CD RFI # 283 SK1:
The plates are shown as 2'-6 long on each side but the width of the concrete is only 3'-6 wide. This will result in the
plates extending outside the concrete beam. Please confirm this is the intent or supply a revised plate length.

T-1135 **SSS - Transfer Girder Web Plate Details** **Open** **01/22/2014** **02/01/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 284 SK1 for items 1 to 4:
1) Confirm the plates are required on each side.
2) The plate is shown as 2'-6 long but the width of the concrete is only 3'-6 wide. This will result in the plates extending outside the concrete beam. Please confirm this is the intent or supply a revised plate length.
3) Confirm the correct reference is 9/S1-3701.
4) Confirm the edge of the plate should be aligned with the end of the Girder.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

T-1136 **SSS - Double Angle Connection** **Open** **01/23/2014** **02/02/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 272 SK1 to SK3 for items 1 & 2:
1) There is insufficient room to provide a double angel connection per 1/S1-5010 for the W12x14 & the W16x26. Confirm it is acceptable to supply a shear plate connection per 1/S1-5011 for the W16x26 to the W12x14 as shown or

supply an alternate solution.
2) Confirm the W16x26 may be connected to the W16x26 using a shear plate similar to SK2 & SK3.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1137	SSS - Drag Plate Splice Detail	Open	01/23/2014	02/02/2014		Potentially	

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

Please refer to attached sketches SK1 & SK2 for the following:

Due to lifting capacity while unloading material, THC will need to order the 3" plate at a maximum of 40'0" length Please confirm a shop splice using CPBG during fabrication to achieve the final lengths of 53'0" and 62'6".

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1138	SSS - Double Angle Connection	Open	01/24/2014	02/03/2014		Potentially	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 281 SK1 & SK2:
There is insufficient room to connect the W16x26 to the W27x84 using the double angle connection per 1/S1-5010.

Confirm it is acceptable to connect the W16x26 to the W27x84 using a shear plate per 1/S1-5011 as shown or supply
an alternate solution.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
T-1139	SSS - WT Deck Support Requirements	Open	01/24/2014	02/03/2014		Potentially	☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

See attached CD RFI # 282 SK1 to SK4 for items 1 to 5:
1) The noted WT is shown as stopping short of the concrete curb on S1-2304 (SK1).
a) Confirm the WT is to extend as shown.
b) It appears the WT will interfere with the rebars below the curb per 6/S1-5002 (SK2). Confirm the WT is located as shown and the rebars will be modified.
2) It is not clear from S1-2304 (SK1) what the deck support requirements are above the noted beam are. Please supply a detail.
3) It is not clear from S1-2304 (SK1) what the deck support requirements are above the noted beam are.

SUGGESTION:

ANSWER:

Accept Suggestion: ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please supply a detail.
4) It appears the WT will interfere with the rebars below the curb per 6/S1-5002 (SK2). Confirm the WT is located as shown and the rebars will be modified.
5) The items below have been identified at specific locations on S1-2304 but similar conditions appear repeatedly on the Ground Level. Confirm the responses to items 1 to 4 may be applied typically on the Ground Floor at similar conditions.

T-1140 **SSS - Bus Deck Level Perimeter Weld Prep** **Open** **01/24/2014** **02/03/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

See attached CD RFI # 285 SK1:

The flange of the sloping W40x277 is 1/8" below the flange of the flange of the W40x297 at the top and 1/16" below at the bottom, making the requested CJP weld not achievable.

Confirm the welds with the flange alignments as shown are acceptable.

Note: moving the sloping W40x277 up to align with the top edge of the W40x297 is not an option as this will move the

sloping W40x277 out of the normal sloping plane.

Please note that this condition repeats at all the same conditions along Grids B & H.

T-1141 **SSS - AESS at Grand Hall and Shaw Alley Bridge** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

1. Reference drawing A1-8661, issued for construction,

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which appears to have information missing for the Grand Hall AESS requirements. Please reference details E, F, and G on A1-8661 attached and clarify the AESS requirements at the noted locations.
2. Detail C on drawing A1-8661 indicates that the HSS 16x16x5/8" member supporting the Shaw Alley Bridge is AESS. However, details C and D on A1-8662 indicate that the HSS 16x16x5/8" member, BU girder, and HSS 5x1/2" posts at the Shaw Alley Bridge are to receive IFRM-1. Please clarify the coating requirements at the Shaw Alley Bridge.

T-1142 **BGP - Grounding Rod at Buttress Pile in Zone 4** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Please refer to drawing E1-2026.

In Zone 4, an overlapping series of concrete buttress piles were poured along the North Wall of the excavation, extending towards the south wall.

In this area, the final grade of the excavation will be the concrete buttress piles. The attached photo shows the buttress pile layout with the grounding ring/ground rods overlayed on it. The ground rods need to be driven 10' deep. Please confirm that the rods which conflict with the buttress piles could be moved away from the north CDSM wall and to the void area of the buttress piles as shown in the attached SCCI sketch SK-SCCI_RFI421.

T-1143 **BSE - Reduced Micropile Testing Requirement in Unsuitable Material Areas** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Webcor Construction LP John Reynolds

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Balfour Beatty Infrastructure Inc. (BBII) has experienced complications with micropile testing in geothermal field 11

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due to unsuitable material. In an effort to minimize additional cost and maintain schedule, Webcor/Obayashi Joint Venture (WOJV) requests the testing requirement be reduced in unsuitable areas to test one (1) in five (5) micropiles. To date, all micropiles have passed the testing requirement. WOJV proposes to test seven (7) of the remaining 31 micropiles in geothermal field 11. The micropiles selected to be tested will be approved by a TJPA representative.

T-1144 **BGP - Lower Concourse Electric Rooms & Lighting Feeds** **Open** **01/27/2014** **01/27/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST:

ASI 104 changed the feeds for the embedded (Type F15 fixture) lighting boxes in the lower concourse slab. Previously they were to be fed from Electric Rooms in the Train Platform level; as per ASI 104, they are now to be fed from Electric Rooms in the Lower Concourse Level. Some discrepancies have been noted as to electrical panel location, and room locations.

DWG E1-4102, Sheet Note J, and E1-4110, Sheet Note I, specify that the type F15 fixtures in Zones 2 and 10 are to be fed from Panel EDMH-BI-A-EMG located in Electric Room B1253. DWG EI-2202 identifies Room B 1253 as Emergency Equipment Storage.

DWG EI-4103 indicates the F15 fixtures in Zone 3 up to Gridline 9 are to be fed from Panel EDMH-B1-A-EMG in Electric Room B1496. This is the same panel as indicated in Zones 1 and 10, but a different room is specified. Room B 1496 is not shown on the drawings.

DWG EI-4103 and DWG E1-4104 indicate the F15 fixtures in Zone 3 past Grid Line 9, and the F15 fixtures in Zone 4 are to be fed from Panel EDMH-B1-B-EMG in Electric Room B1322. SKE-02-3201 issued with ASI 104 does not have a Panel EDMH-B1-B-EMG in Rm B1322.

DWG E1-4105 and DWG E1-4106 indicate the F15

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

fixtures in Zone 5 and Zone 6 are to be fed from Panel EDMH-B1-C-EMG in Electric Room B1541. Plan sheet E1-3204 Detail 6 referenced does not seem to be included in the contract drawings.

DWG E1-4107 indicates the F15 fixtures in zone 7 are to be fed from EDMH-B2-D-EMG in Electric Room in Electric Room B1644 in Lower Concourse. Per the "Equipment Naming" char on DWG E1-0010, the B2 in the panel name indicates that it is on the Train Platform Level. However, the room number indicates that it is indeed on the Lower Concourse level.

1. Please provide an enlarged room plan showing the location of each of the following panels: EDMH-B!-A-EMG, EDMH-B1-B-EMG and EDMH-B1-C-EMG

2. Please confirm that panel EDMH-B1-D-EMG is in ROom B1644 per detail E1-3203 (dated 8/30/12) on that the panel was incorrectly labeled EDMH-B2-D-EMG on E1-4107

T-1145 **BGP - Plumbing and Floor Drawing Detail Discrepancies** **Open** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Shimmick Construction Company, Inc Sylvia Hartanto

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Please refer to attached drawing A1-2224, A1-2844, A1-2225, A1-2845, A1-2846, A1-2226 and excerpt from spec section 22 05 30, 3.2.

Details for plumbing and floor drains in the drawings for the Lower Concourse have the following discrepancies:

1. Drawing A1-2224 left of gridline (GL) 13 between GL B - GL C shows two plumbing details and in drawing A1-2844 these plumbing details are not shown
2. Drawings A1-2845 and A1-2225 between GL 22 - GL 23 and GL G - GL H where A1-2845 shows a plumbing (PLBG) detail and A1-2225 shows a floor drain (FD) detail
3. Drawings A1-2846 and A1-2226 between GL 29 - GL 30 and GL G - GL H where A1-2846 shows a plumbing

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(PLBG) detail and A1-2226 shows a floor drain (FD) detail
4. A plumbing detail shown in drawing A-2225 on GL G between GL 24 - GL 24.9 is not shown in drawing A1-2845.

5. Furthermore, the PLBG callouts in all the Architectural and Structural drawings do not include the size for each pipe or sleeve. Plumbing sleeve details in spec section 22 05 30 - 3, do not state the required clearance spacing needed.

Please verify the conflicting plumbing and floor drain details, the diameter size of each pipe or sleeve detail, and clarify the clearance space for sleeves required for plumbing.

T-1146 **SSS - Moment Frame Column Splice** **Void** **01/27/2014** **02/06/2014** **Potentially** ☐

From: Webcor Construction LP Stephanie Azzolino **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

T-2024 **SSS - Transfer Girder Studs and Rebar Holes** **Open** **12/12/2013** **12/22/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

At TR8 near grid line G refer to sketches CD RFI 220 SK1 to SK3 for items 1 to 3:
1) Confirm the headed studs as shown are correct (work with item 2).
2) Detail 2/S1-5023 is referenced with a "SIM' designation and it is not clear what is required on grid 8 for the additional headed studs shown in detail 2/S1-5023. Confirm the headed studs as shown on SK3 are acceptable or supply a clarifying detail specifically for this location showing the stud locations.
3a) Confirm the 2" dia. hole locations as shown on SK3

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

are acceptable to clear the bolts in the bottom flange and the stiffeners.
3b) Detail 2/S1-5023 shows the holes at 5" OC but this contradicts the 6" OC shown in detail 7/S1-3701. Confirm the spacing shown in item 3a above is acceptable.
3c) Confirm the 3" dia holes are not required at grid 8 as they are not shown in detail 7/S1-3701. Supply location dimensions if they are required.

T-267 **BSE - DI Installation at First Street** **Closed** **11/29/2011** **12/09/2011** **12/13/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: Balfour Beatty Infrastructure, Inc. Ural Yal

REQUEST:

Reference RFI U-101, Sheet U-3021

The RFI response U-101 dated 02-28-2011 eliminates the CB #501 from the RUP contractor's scope of work. However there has been no replacement or adequate surface water control system neither suggested nor installed to replace the CB # 501.

BBII recommends that this catch basin # 501, be installed per the original design to control surface water.
Please confirm it will installed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CB#501 was deleted from RUP due to unforeseen field conditions. For RUP, runoff from adjacent area to drain south to existing CB at STA 4+20. Existing CB at STA 4+20 to remain in place and active at completion of RUP.

BSE Contractor to provide stormwater control on site accordance with BSE documents.

T-268 **BSE - Rebar in Secondary Shafts** **Closed** **12/08/2011** **12/18/2011** **12/12/2011** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** Arup Kevin Clinch

Co-Author:

REQUEST:

Reference GT-2201, Installation Sequence Note 5

Please confirm the reinforcement in the secondary shafts should be installed in the last buttress shaft of each row.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As described in Note 5 on sheet GT-2201, since the cost-add option has been excercised, the reinforcement shall be installed in the secondary shafts along rows 15 and 16.5.

T-474.1 **BGP - Waterproofing Micropile on Slope** **Closed** **05/02/2013** **05/12/2013** **05/03/2013** **Potentially** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Please reference response to RFI# T-0474. The manufacturer and installer will not provide a waterproofing detail for the micropile located in the sloped sump pits. Please provide a waterproofing detail acceptable for the use under the conditions specified in RFI# T-0474.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As indicated in the response to RFI T-0519, the contract drawings and specifications cover the general requirements and waterproofing system parameters.

Per the General Conditions, shop drawings shall be submitted to demonstrate the way the CM/GC proposes to conform to the information given and the design concept expressed in the contract documents.

As the response to RFI T-0474 previously directed, please submit a shop drawing based on the waterproofing manufacturer's recommendations for this condition.

T-509 **BGP - Orientation of Protection Board** **Closed** **04/23/2013** **05/03/2013** **04/26/2013** **Potentially** ☐

From: Webcor Construction LP Kody Cooper **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Shimmick Construction Company, Inc Ben Gordon

REQUEST:

Reference Specification: 07 12 10 - 3.2.D

This section states "Install Protection board on vertical surfaces with long dimension vertical and the polyethylene film side facing the soil/cement surfaces." Per the manufacturer's installation instructions, "the protection board will be installed length wise for easier handling during the fastening procedure." SCCI suggests installing the protection board length wise per the manufacturer's instructions. Is this acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Install the protection board as specified. It is not intended for protection, but to serve as a substrate for the waterproofing assembly.

Protection board is 4' x 8'. When installed vertically, the edges of the boards will be butted and fastened at each pile. This will provide a line of fasteners on the edge of each board and help accommodate the board to pile misalignment. When installed horizontally, the board will be fastened on the intermediate pile which will complicate the installation if the piles are twisted or misaligned.

The board should not be fastened to the CDSM. It should only be fastened to the steel soldier piles.

T-701 **SSS - Dimension Clarification Required** **Closed** **08/29/2013** **09/08/2013** **08/30/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Drawing: 1/S1-5131

Please see attached blow up of Plan Sheet S1-5131 Detail 1 View D (Front View). Please provide the location for the center of the 8" radius.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The dimension indicated as "X" in this RFI is 26 inches.

T-719 **BGP - Spandrel Beam Modifications in Area 7** **Void** **09/11/2013** **09/21/2013** **09/16/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Reference Documents: Exhibits A - B

Further to response to RFI T-637 please find attached proposed changes to the spandrel beams in pour Area 7 for location plan see exhibit - A

Exhibit - B shows the plan view of the modification necessary to the spandrel beam on the north and south elevations due to the revised reinforcement width of the foundation wall due to encroachment of the CDSM beams as well as typical cross sections of the revised spandrel beams.
RFI T - 628.1 shows the extent of the modification to the foundation wall on the north and south elevations of Area 7.

Please confirm that this modification as outlined at this location is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See RFI T-0719.

T-980.1 **SSS - Perimeter Girders at Ground Level** **Closed** **12/30/2013** **01/09/2014** **01/13/2014** **Potentially** ☐

From: Webcor Construction LP Gregory Kemerer **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author: Skanska USA Civil West California Dis Ryan Clayton

REQUEST:

As a revision to parts 1 & 2 of SK RFI 238 (T-0980), please refer to the following and CD RFI 162.1 SK1 & SK2 attached which are modifications to the BU girder

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1). Confirmed.

2). Confirmed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

connection details on 3 &7/S1-4350:

1.) Confirm it is acceptable to provide the beam web, flange, and plate assembly as indicated. The CJP indicates the plate to flange weld above the beam per 5/S1-4350 while the PJP indicates the proposed web to flange weld. The web to flange fillet welds per RFI # T-0704.1 will be applied beyond the shown CJP and PJP welds.

2.) Per the response to SK RFI 238 (T-0980), it is acceptable to stop the bottom flange plate short as shown, extend the web plate of the BU WT to the web plate of the BU beam. Please verify the proposed weld is acceptable. The web to flange fillet welds per RFI # T-0704.1 will be applied beyond the shown CJP welds.

T0860.1 **BGP - Rebar barlocks for interior Walls in Area 3** **Closed** **11/13/2013** **11/23/2013** **11/19/2013** **Potentially** ☐

From: Webcor Construction LP Michael Spillane **To:** Turner Construction Compan Gary Krutsch **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Further to the response to RFI-860, Please find attached information (see exhibit A) on the proposed class 2 barlocks which are intended to be used at the noted partition walls in Area 3 as outlined in original RFI T-0860 see exhibit B.

Due to the overall diameter of these Type-2 bar locks, please confirm that it is acceptable to have reduced concrete clear cover to the barlocks which will be approximately ¾". This reduced clear cover will only be applicable for the length of the barlocks itself, which at worst case is approximately 12".

Please confirm that this is acceptable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

George Metzger
11/18/2013
RESPONSE:
Acceptable

TG03.00-0001 **TG03 Question 0001 - E & O Insurance** **Closed** **08/04/2010** **08/18/2010** **08/24/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Exhibit A, 2.A & 4.F

A. Confirm $25,000 dollar policy is required. Conflicts w/ 16.4 (page 11) of the LONG FORM SUBCONTRACT document. However, 16.9 says more stringent of requirements apply.

B. Confirm duration of E & O insurance. EXB-A Section 4.F states insurance shall be maintained "...10 years beyond the Contract Final Completion Date..." Considering the internal bracing, trestle, and bridges are temporary shouldn't the policy only apply when the system is in use. Once removed (street level construction complete), the liability should shift to the permanent structure's design team as the station superstructure is erected. Taken literally, this could require the E & O maintained 17 years (7 years of construction + 10 years beyond).

Submitted by Charles M. Gardner
Kiewitt Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A. The insurance requirements for this scope of work are as described in Exhibit A, Section VI. Insurance Requirements.

B. 4.F of Exhibit A, Section VI. Insurance Requirements was revised in Addendum 2 stating the professional liability insurance maintenance period will be for a period of 3 years beyond the Contract Final Completion.

TG03.00-0002 **TG03 Question 0002 - BIM** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor/Obayashi Joint Ve Manuel Saldana

Co-Author:

REQUEST:

Reference Project Bidding Manual Section IV-G

A. Confirm that BIM modeling is only a requirement for construction documents and not bid documents or bid presentation.

Submitted by Charles M. Gardner
Kiewit Infrastruture West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

Answered by Webcor / Obayashi
08/13/2010

TG03 Question & Answer Post #1
Posted 08/23/2010

TG03.00-0003 **TG03 Question 0003 - Electronic Drawing** **Closed** **08/10/2010** **08/17/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: N/A

A. Can Revit or Autocad backgrounds be made available to accelerate pre-bid design of systems (Permanent Terminal Architectural and Structural Drawings). Floor plans and sections only. Details not necessary.

B. Can PDF Versions of the drawings be made available for downloading?

Submitted by Charles m. Gardner
Kiewit Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The CM/GC will distribute electronic documents. See specification section 00 08 07 included with Addendum 1.

Answered by George Metzger
Adamson Associates, Inc.
08/20/2010

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0004	TG03 Question 0004 - Deep Foundations	Closed	08/10/2010	08/17/2010	09/08/2010	Potentially ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Michael Constable

Co-Author:

REQUEST:

Reference Exhibit A, IV.C.20 thru 6

A. Pin piles, micropiles, and other deep foundation systems are noted that they may remain in the permanent mat slab once the temporary structures are removed. What is the criteria for locating these items so they do not interfere with permanent foundatoin system by interrupting mat slab reinforcing, installation of column base plates or similar? Will deisgn team provide a "stay clear" or "no fly zone" type of instruction or plan related to proximity to permanent building columns, tie downs, permanent walls, and other special regions of the mat?

B. See also Page A3-3 of Exhibit A, last item.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Pin piles (piles for supporting shoring wall struts) can bae placed at the locations determined by the contractor, but they shall not affect the future construction of the columns, walls, elevator pits, etc. The contract documents for other work to be issued in the distant future will include waterproofing details around the pin piles, where pin piles penetrate through the mat slab (this work is not a part of the scope for the BSE package).
2. Micropiles are to be located, in general, in accordance with the typical layout shown on Sheet S1-2024. Minor deviation in location will hvae only a small effect on the mat slab reinforcement, which the design team will address after receiving micropile layout shop drawings from te contractor. Per note C on S1-2024, the micropile contractor shall coordinate the locations of the micropiles with the shoring contractor.
3. Trestle piles: Trestle piles are to be located and detailed in the shop drawings and submitted for review. Trestle pile locations shall be coordinated with pin piles and micropiles by the contractor.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0005	TG03 Question 0005 - Temporary Bridge	Closed	08/10/2010	08/17/2010	09/08/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author:

REQUEST:

Reference Exhibit A Render on page SL-006

A. Provide design criteria, if any, for minimum clear distance between street bridge columns, trestle, and shoring wall in the train box trench. Render shows single line of columns on either side of the trestle approximately equal distance between shoring wall and trestle edge.

B. Confirm that clear-spanning from shoring wall to trestle is not required.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Engineer of Record for the street bridge and trestle shall determine minimum clearance so as not to interfere with the shoring wall. Note - Specific criteria related to placement of temporary features such that they do not damage permanent features should be directed to designer of such permanent features.

Answered by David Fyfe
URS-Corporation
08/18/2010

TG03 Question & Answer Post #1
08/23/2010

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0006	TG03 Question 0006 - Temporary Bridge	Closed	08/10/2010	08/17/2010	08/23/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference specs.

A. Spec. section 01 15 13, 1.2.A states that street bridges shall be designed to support a "Fully assembled Manitowoc 999 crane weighing 500,000 lbs traveling w/out a hook load". Page A3-1 of Exhibit A states that the Manitowoc 999 crane body and counterweight weighs approximately 250,000 lbs, and gives unclear informatoin regarding the boom weight, and critical swing angle. Please clarify if 500,000 lbs applies to street crossings or can the same criteria for the trestle be applied to the street crossing bridges with respect to crane loads only.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Temporary bridge shall be designed for the stipulated 500,000 lb equipment crossing, as well as other design load requirements as defined in 01 53 13 - 1.3.A.1. Trestle design requirements per Bid Manual Exhibit A - Attachment 3 apply to trestle design only.

Answered by Alfred Lau
TJPA (PMPC)
08/17/2010

TG03 Question & Answer Post #1
08/23/2010

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0007	TG03 Question 0007 - West End Train Box	Closed	08/10/2010	08/17/2010	08/12/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Geotechnical Drawings

A. Both the Architectural and Structural drawings show the west end of the train box curve continuing to the south west to an extent greater than that shown on the Geotechnical drawings. The structural drawings indicate a line showing the "extent of shoring wall in the bid package". Please confirm that the shoring wall's finall design will follow the geometry shown in the architectural and structural drawings.

B. Both the Architectural and Structural drawings show the south east of the train box curving once Beale street is reached. The Geotechnical drawings show the wall continuing straight along line J until it intersects the end wall. Please confirm that the shoring wall's finall design will follow the geometry shown in the architectural and structural drawings.

C. Please provide new workpoints & centerline dimensions of CDSM Wall based on the correct end conditions at both the east and west ends.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This will be addressed in an Addendum.

Answered by George Metzger
Adamson Associates, Inc.
08/12/2010

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0008	**TG03 Question 0008 - Micropile**	**Closed**	**08/10/2010**	**08/17/2010**	**08/19/2010**	**No**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference: Structural Drawings; tiedowns

Questions:
1. 10" diameter tiedowns are shown in the structural drawings. Confirm this drawing is typical along the train box between grids A & J.
2. At the longer bays (51'), what is the tiedown configuration?
3. South of line J, where the train box curves at south west end, please provide a drawing indicating tiedown

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Micropile layout for the typical bay (42'-6" bay) is shown on S1-2024. The contractor shall bid based on the quantity indicated on S1-2024. Prior to the contractor start of the shop drawing process, the base building structural engineer will provide a micropile layout for the entire Trainbox.

Answered by George Metzger
Adamson Associates, Inc.
08/19/2010

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

locations.

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/3/10.

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0009 **TG03 Question 0009 - Structural Drawings** **Closed** **08/10/2010** **08/17/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: Structural Drawings

Question:
Concourse level and street level structural plans were not provided. Can these plans be made available so we can more accurately plan for bracing and trestle installation and removal?

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/3/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For information on the Concourse level and street level plans and section
information see the following documents:

section A/S1-3201,

plans A1-2000 through A1-2002 and A1-2005,

sections A1-5000, A1-6000, A1-6102, A1-6118, A1-6231,

sections GT-1111, GT-1112

Answered by George Metzger
Adamson Associates, Inc.
08/13/2010

TG03 Question & Answer Post #1

TG03.00-0010 **TG03 Question 0010 - Bid Bond** **Closed** **08/04/2010** **08/18/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor/Obayashi Joint Ve Manuel Saldana

Co-Author:

REQUEST:

Ref: Project Bidding Manual V.A.3

Question:
Is another Bid Bond Form for the trade subcontractor

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes. Bid Bond Form for Trade Subcontractor will be issued in a future addendum.

Answered by Webcor / Obayashi Joint Venture

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

going to be issued?

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/3/10

08/13/2010
Webcor / Obayashi Joint Venture

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0011 **TG03 Question 0011 - Bid Bond Form** **Closed** **08/10/2010** **08/17/2010** **08/26/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Ref: Spec sections 31 63 29, 31 56 13

Question:
Please confirm that the internal bracing is designed to adequatecy support the loading indicated on dwg GT-1110, and work is installed (and top buttress removed) in compliance with the specifications, that the design for the drilled shafts (31-63-29) and CDSM shoring wall (31-56-13) is adequate to prevent further movement of 301 Mission St. and trade subcontractor's professional liability would not extend to the owner's design.

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/3/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Insurance policies cover the entity holding the policy.

TG03.00-0012 **TG03 Question 0012 - Electronic Drawing** **Closed** **08/10/2010** **08/17/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Gerry MacClelland

Co-Author:

REQUEST:

Ref: N/A

Question:
Will the owner or general contractor please provide bidders with electronic copies of the contract drawings for the Transbay Joint Powers Authority Contract No. 08-04-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See response to question 3.

Answered by Gerry MacClelland
TJPA (PMPC)
08/17/2010

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

CMGC-000? Specifically those drawings which pertain to Trade Package #TG03.

Submitted by: Kelly Wigton
Shimmick Construction,
8/4/10

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0013 **TG03 Question 0013 - Milestones Clarification** **Closed** **08/10/2010** **08/17/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref: Exhibit A - Trade Subcontractor Package

Question:
Page 15 Milestones state, "All submittals are to be provided within 10 days of NTP #1." Please clarify the expectation ("All" submittals?), and how this milestone relates to Milestone NTP #2 Start Date.

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/4/10

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Exhibit A, Page 15, NTP #01 - The last sentence will be changed to state "Submittal schedule shall be provided to Contractor within 10 days of NTP #01." This will be included in an upcoming Addendum #2.

TG03.00-0014 **TG03 Question 0014 - Demolition** **Closed** **08/10/2010** **08/17/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Gerry MacClelland

Co-Author:

REQUEST:

Ref: Exhibit A - Trade Subcontractor Package, D-1001, D2200

Question:
Drawing D-1001 shows processed concrete rubble from demolition contract left within the existing basement to approximately existing ground elevation. Drawing D-2200 note 1 indicates depth and thickness may vary. For bidding purposes, please clarify:
1. That the amount of processed rubble will not exceed the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The amount of crushed/processed demolition concrete/material left on site will not exceed existing ground elevation. 2) The Demolition Contractor (Transbay Transit Center - Existing Terminal and Ramps Demolition Project - Contract No. 000-08-DM-000) will remediate the Terminal building and bus ramps prior to placement of crushed/processed demolition concrete/material.

Answered by Gerry MacClelland

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

sections as shown on D-1001, or ground elevation, and
2. That all material on-site by the demolition subcontractor will be certified free of all contaminants.

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/4/10

TJPA (PMPC)
08/18/2010

TG03 Question & Answer Post #1
08/23/2010

TG03.00-0015 **TG03 Question 0015 - Night Noise Permit** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Ref: 01 15 70 3.2.A.12

Question:
Specification section 01 15 70 3.2.A.12 states, " Work is restricted during the holiday moratorium (day after Thanksgiving to January 1. inclusive, 24 hours a day, seven days per week as set forth in the Blue Book by the SFMTA. Blue Book allows work at night within the restriction zone ,"...as long as the proper night noise permit is obtained." Please confirm that DPW issues the night noise permit, what are the parameters, and that it will be obtainable so that we may at least work night shifts during this period.

Submitted by: Charles Gardner
Kiewit Infrastructure West Co.
8/4/10

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

DPW issues authorization for work in the public right-of-way that generates night noise. TJPA is responsible for night noise authorization for work done on TJPA property.

Please note that there is no specific threshold or criteria that qualifies for or would guarantee DPW night noise authorization; issuance of this authorization is solely at the discretion of DPW. However, DPW is cognizant that there are times when compelling reasons make it in the public¿s interest to allow for night noise and DPW reasonably grants night noise authorization.

Generally, the application for night noise authorization requires:

submission by a responsible party. In this case, the contractor would prepare the application form and provide it to TJPA to submit to DPW.
the following information is needed for the permit:
project description and address/location, including map and/or drawing
compelling reasons for work at night rather than during the day

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

description of night work to be accomplished
description of all equipment used for night work, including associated noise level
days/time of proposed night work
contractor doing the night work
contact phone for 24/7 response by both the contractor and project sponsor
demonstration that those within a 150¿ radius have been notified at least 5 days in advance of the night noise work

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TG03.00-0016 **TG03 Question 0016 - Professional Liability Insurance** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, VI.2.B. and spec. 00 08 05, 1.3.B

Specification 08 05 1.3.B requires Professional Liability Insurance in the amount of $10,000,000 each claim with a deductable not to exceed $50,00 each claim. Exhibit A VI.2.b requires $25,000 with a deductable not to exceed $250,000.

Q. Can you clarify why the Trade Subcontractor would be held to an amount higher than the CM/GC?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/04/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Professional Liability and Commercial Liability requirements included in the TG03 BSE package are the same as those required during prequalification for this scope of work. All five prequalified Trade Subcontractors responded in the affirmative that they have ¿or can obtain a liability insurance policy issued by an insurance company licensed in the state of California¿ for these limits. These insurance requirements are higher than those required of the CM/GC under the prime contract due to the risk associated with the design-build aspects of the BSE work, and because the work will be performed by parties other than Webcor/Obayashi Joint Venture.

TG03.00-0017 **TG03 Question 0017 - Commercial Liability Insurance** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, BI.1.B and 00 08 05, 1.2.B

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0016.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specification 08 05, 1.2.B requires Commercial Liability Insurance in the amount of $25,000,000 each occurence. Exhibit A, VI.1.B requires $100,000,000.

Q. Can you clarify why the Trade Subcontractor would be held to an amount higher than the CM/GC?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/04/2010

TG03.00-0018 **TG03 Question 0018 - Fees** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 00 08 13, 1.8

Muni Code 2.4 requires,

"Each applicant shall submit and maintain with the Department a bond, cash deposit, or other security acceptable
to the Department securing the faithful performance of the obligations of the owner and its agent under any permit(s) to excavate and the compliance with all terms and conditions of this Article (the "deposit").
The deposit shall be in the sum of $25,000 in favor of the "Department of Public Works, City and County of San Francisco."

Also there are Administration fees daily inspection fees and other "additional fees"

Please clarify which fees the Trade Subcontractor on this project will be required to make.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/05/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Administration, inspection and other fees associated with the permit process will be paid for by the Trade Contractor and reimbursed by the TJPA in accordance with Section 01 14 10/APA (See Addendum 2).

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0019	**TG03 Question 0019 - Wastewater Discharge Permit**	**Closed**	**08/10/2010**	**08/17/2010**	**08/10/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference specification 31 23 19, 1.7.C

Spec section 31 23 19 1.7.C requires Contractor to obtain a wastewater discharge permit from the City of San Francisco. Who pays for the cost of is charging into the local municipal waste water collection system? Who pays for the analytical testing?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/05/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Cost for dewatering discharge into public sewer system shall be paid by TJPA. An allowance shall be defined as issued in an upcoming addendum. Analytical testing of dewatering water shall be performed by TJPA¿s representative.

TG03.00-0020	**TG03 Question 0020 - Buy America Requirements**	**Closed**	**08/10/2010**	**08/17/2010**	**08/13/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference specification 00 08 13/APA.17

Spec section 00 08 13/APA.17 Buy America Requirements provide ," **
** This provision applies only to the following types of Agreements: construction agreements of any value; agreements for the acquisition of goods valued at more than $100,000; and agreements for the acquisition of rolling stock valued at more than $100,000. This requirement does not apply to lower tier Subcontracts. 00 08 13/APA 17 (b) further states that, "The Prime Contractor is responsible for ensuring that lower tier subcontractors are in compliance.

A) Please confirm "This requirement does not apply to lower tier Subcontracts"

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/05/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification 00 08 13/APA 17 incorrectly states that Buy America requirements do not apply to lower tier Subcontractors. The certification requirement does not apply to lower tier Subcontractors, e.g., lower tier Subcontractors do not have to each submit Buy America certifications. However, the Buy America requirement applies to the entire contract and the Prime Contractor is responsible for ensuring that lower tier Subcontractors are in compliance, and the CM/GC is requiring the certification from all Bidders (but not Bidders' subcontractors). A revised Specification will be issued in a forthcoming addendum.

TG03.00-0021	**TG03 Question 0021 - SBE Program**	**Closed**	**08/10/2010**	**08/17/2010**	**08/13/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Exhibit A Section IV Scope Section D

Exhibit A Section IV Scope Section D SBE Program states that "Trade Subcontractor shall obtain a minimum SBE participation of 24% of the total value of Trade Subcontractors bid value". Volume 1 section 00 08 21 1.3B states that the SBE goal for this contrat is 17%. Please clarify what the SBE requirements are for the Trade Subcontractor for the BSE package. Also clarify how the % is calculated. Is the SBE participation % based on the total value of the Trade Subcontractors bid price or is it based on the amount of the bid that has been subcontracted to others?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/05/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

17% is the overall SBE goal for the entire CM/GC contract. The CM/GC will set varying percentage goals for each individual package. The goal for the BSE package is 24%. SBE percentages are calculated by determining the ratio of firms in the nine-county Bay Area for a particular NAICS code to the number of SBE firms in the same area for that same NAICS code. SBE participation is calculated based on the total value of the Trade Subcontractor's bid price. For example, if the total bid is $1,000,000, and the SBE goal is 24%, the Trade Subcontractor (if not an SBE itself) must make good faith efforts to subcontract out at least $240,000 to SBE subcontractors.

TG03.00-0022	TG03 Question 0022 - Bid Date	Closed	08/10/2010	08/17/2010	08/18/2010	Potentially ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference Exhibit A II - Bid Due Date

Due to extensive design required, we request a postponement of the Bid Date by six (6) weeks to October 26, 2010.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/06/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A forthcoming Addendum will include a time extension of 4 weeks beyond the current bid date. The TJPA will continue to monitor contractor questions and the content of future addenda to be satisfied it allows a reasonable period to finalize contractor bids.

TG03.00-0023	TG03 Question 0023 - Geotechnical Reports	Closed	08/10/2010	08/17/2010	08/13/2010	Potentially ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Mark O'Dell

Co-Author:

REQUEST:

Reference: N/A

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Final Geotechnical Data Report contains a total of

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In regards to the reference documents: under the Folder: Geotechnical Reports, Volume 3 from the "Final Geotechnical Data Reports" cannot be found. Volumes 1&2 were clearly uploaded. Will you please upload V3 - or let me know where to find the document on the FTP website? Thank you.

Submitted by Briana Harvey
Malcolm Drilling Co.
08/06/2010

2,266 pages. The pdf version located on the ftp site is broken-up into 2 volumes. The hard copy versions provided to Webcor/Obayashi were separated into 3 volumes for convenience in handling.

Therefore the pdf version located on the ftp site as Volume 1 and Volume 2 is equal to the 3-volume hard copy version located at Webcor/Obayashi's Office. A Volume 3 will not be uploaded.

TG03.00-0024 **TG03 Question 0024 - Ancillary Permits** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bidding Manual (20/44) and specification 01 14 10/APA 1

Please clarify the definition of "ancillary permits". Request specific differentiation of responsibilities between Contractor/Trade Subcontractor/ TJPA. Perhaps a new responsibility matrix with a column for the Trade Subcontractor would help.

Submitted by Charles M. Gardner
Kiewit Infrasturcture West Co.
08/06/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Revised Specification 01 14 10 / APA 1 will be provided in an upcoming Addendum. Trade Subcontractor is responsible to obtain all permits identified in the matrix as Contractor's responsibility, that are required for Trade Subcontractor's work.

TG03.00-0025 **TG03 Question 0025 - Access Trestle** **Closed** **08/10/2010** **08/17/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference: SL-001

Concept drawing for the access trestle shows a width of 48' in Zone 4 and 32' wide everywhere else. Are there

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The access trestle shown in the drawing is conceptual only. Since there is minimal access at the perimeter of the site the intent of the trestle is to allow for access for excavation, shoring, structural concrete and steel

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

minimum width requirements for the access trestle? If so, please provide details. Are there maximum width constraints? If so,please provide details.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/06/2010

erection. See Exhibit A, Attachment 3 for minimum requirements. There are no maximum requirements.

TG03.00-0026 **TG03 Question 0026 - Surveyor Insurance** **Closed** **08/10/2010** **08/17/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, Section VI

Part 2A indicates the Trade Subcontractor must utilize surveyors who can provide $25,000,000 of insurance. This will effcetively eliminate many survey engineers from being able to bid on this work. The resultant effect will be higher bid costs. Please consider this and confirm what the insurance requirements are for land surveyors.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/06/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent of Exhibit A, Section VI.2.A is to require $25,000,000 in professional liability insurance with respect to the design-build elements of the work, which can be obtained either by the Trade Subcontractor or its retained engineers. However, with respect to land surveyors only, the Trade Subcontractor or its retained engineers should only have to evidence $1,000,000 in professional liability insurance covering that scope of work, consistent with the standard requirements set forth in Article 16 of the Long Form Subcontract. This will be included in Addendum 3.

TG03.00-0027 **TG03 Question 0027 - Temporary Street Closures / Detours** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor Construction LP Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, Section VI

Will temporary closures and/or temporary detours of First St, Fremont St, and Beale St be alowed so the contractor can perform activities such as 1) installation of CDSM elements, 2) demolition, 3) installation of temporary street elements? If not, how is the Owner proposing these work

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The traffic routing requirement is specified in spec section 01 15 70. This Section will be revised in a future addendum.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

elements be performed?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/09/2010

TG03.00-0028 **TG03 Question 0028 - Trade Subcontractor DBE Participation** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference specification 00 08 21, Section 1.2.B

Section 1.2B states "The DBE Availability Advisory Percentage is not an enforceable goal under the CalTrans mandated changes to the DBE program, and compliance with the advisory is not a condition of the contract" Please clarify what the Trade Subcontractors requirement is regarding DBE participation on this contract.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/09/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As stated in the Specification, the DBE percentage is not an enforceable goal and compliance with the advisory percentage is not a condition of the contract. However, the advisory percentage is calculated to inform the contractor of the potential availability of DBE firms in the marketplace for the type of work in the contract, and the TJPA strongly encourages the use of DBE subcontractors. Bidders should also note that there is an SBE participation goal on this contract, and Bidders must demonstrate good faith efforts to meet the SBE goal as a condition of contract. Certified DBEs count as SBEs in TJPA's SBE Program.

TG03.00-0029 **TG03 Question 0029 - Demolition Contract** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 00 00 35, section 1.2.A

Section states "The demolition contractor is responsible for removing and abating products containing asbestos, lead, or PCB ballast, or mercury containing lamps." Please confirm the reference to demolition contractor is specific to the Trade Subcontractor performing work under contract 08-08-DM-000, Existing Terminal and Ramps

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed; see revision to Section 00 00 35 in Addendum 1.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Demolition Contract.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/09/2010

TG03.00-0030 **TG03 Question 0030 - Trade Subcontractor Insurance** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specfication 00 08 05

Section 00 08 05 contains specific insurance requirements. These requirements differ materially from those contained in Exhibit A Section VI as well as section 16 of the proposed subcontract between Webcor / Obayashi and the Trade Subcontractor. Please clarify what the insurance requirements are for the Trade Subcontractor.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/09/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Exhibit A, Section VI for TG03 Trade Subcontractor insurance requirments.

TG03.00-0031 **TG03 Question 0031 - Contaminated Groundwater** **Closed** **08/10/2010** **08/17/2010** **08/19/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 01 35 65, sections 1.7.G & 1.7.H.

Section 1.7H.2 describes construction of a "small-scale batch wastewater treatment system to remove dissolved contaminates" such as petroleum hydrocarbons, benzene, toluene, etc. Please verify that the treatment costs to handle contaminated groundwater will be paid as extra work by TJPA.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Settlement Treatment

Costs associated with settlement of dewatering effluent to reduce sediment load prior to discharge are not to be treated as extra cost items.

Chemical Treatment

Costs associated with treatment to removed dissolved

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/09/2010

contaminants, as described in specification 01 35 65, section 1.7H.2 will be considered extra cost items only if chemical testing shows elevated levels of dissolved contaminants that cannot be brought into compliance with SFPUC permit requirements by settlement alone. Treatment shall be done in the most cost effective manner to bring dewatering effluent into compliance with SFPUC discharge permit requirements.

TG03.00-0032 **TG03 Question 0032 - Extend Bid Date** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Exhibit A, II, "Key Dates for Bidding Process" of the Project Bidding Manual establishes the Bid Due Date as Sept. 14, 2010, 6 weeks from the date of bid package issuance.

Six weeks is an insufficient amount of time to adequately prepare a $200M estimate and bid. We therefore request that the Bid Due Date be extended an additional 8 weeks for the following reasons

Design-Build
The SBE package includes major deisgn-build elements. The extent of the design work related to shoring, bracing, trestle, cross-street bridging and dewatering that the BSE Trade Subcontractor will be responsible for performing became fully apparent to the prequalified contractors only when the bid package was issued. Developing these required Trade Contractor designs far enough to allow accurate pricing to begin will take time.

Considering the magniute and location of the construction work, the risk accompanying the design is also extremely high. A memorandum of understanding that adequately addresses this risk must be negotiated with the Trade Subcontractor's Professional Engineer before design can even beign. This will take time.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to the answer to question 47 for information on the SBE program.

Response by Gerry MacClelland 8/18/2010

A forthcoming Addendum will include a time extension of 4 weeks beyond the current bid date. The TJPA will continue to monitor contractor questions and the content of future addenda to be satisfied it allows a reasonable period to finalize contractor bids.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Similarly, the Trade Subcontractor will likely enlist the services of an independent Professional Engineer to act as a peer reviewer to check the work of the Trade Subcontractor's principal engineer. Reconciliation of any differences identified during this review will take time.

Liquidated Damges
Liquidated damages associated with not meeting the CM/GC's schedule for Substantial Completion are extraordinarily high. It appears to us that the BSE Trade Subcontractor's time for substantial completion, i.e. 1,825 days following Notice to Proceed with pre-construction services, is highly interconnected with the work of other trade subcontractors and also contingent on their performance. If this is the case, it becomes very difficult to accurately assess risk of exposure to liquidated damages. The Joint Venture will need time to clarify with the CM/GC the relationship between the other trade subcontractors' work and the BSE Trade Subcontractor's substantial completion date. Then we can adequately assess the risk resulting from this relationship, include it in our pricing and secure surety commitment.

Small Business Program
The Trade Subcontractor is required to achieve a minimum small business enterprise participation of 24% of its' total bid. Given the magnitude of the principal scopes of work required in the BSE package - shoring/bracing, excavation, drilling - most small businesses will neither be interested in participating nor qualified to do so. Time will be needed to identify a sufficient amount of reasonable scopes of work for small busines sparticipation and to work with interested small businesses, as necessary, prior to bid day to help them with insurance, bonding, shceduling, and performance issues.

Given the cirumstances outline above, Shimmick / Skanska / Traylor strongly urges the Transbay Joint Powers Authority and Webcor / Obayashi to postpone the bid date for the TG03 BSE Package until Nov. 9, 2010.

Submitted by Rich Zito
Shimmick / Skanska / Traylor, a Joint Venture
08/09/2010

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

TG03.00-0033 **TG03 Question 0033 - Staging Areas** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bid Manual IV, A.3.b.

Trade Subcontractor Requirements
Q - Will Staging areas 9, 10, 12 etc. from the Existing Terminal Ramps & Demolition Plans be made available to the TG03 - BSE Trade Subcontractor?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/09/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Project Bidding Manual, Section IV.A.3 .b - Contractor will not provide areas for staging.

TG03.00-0034 **TG03 Question 0034 - Trade Coordination** **Closed** **08/10/2010** **08/17/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Instruction to Bidder's Add. Note 27b & Project Bid Manual IV.A. 12.a

Trade Subcontractor Requirements
Q . Please confirm and/or clarify that the follow on Structure Trade Subcontractor will be responsible for their own access, or if it is intended to be provided under this Trade Subcontract. IFB Additional note 27 b indicates access will be made available to all Trade Subcontractors, but locations may need to change to suit BSE Contractor during course of Work. Also, Is it the intention of this Trade Subcontract to install all "leave-out" pourbacks? Elevators? Etc.? Please specify all Concrete work in addition to Mud Slab expected of this Trade Subcontract.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/09/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. This Trade Subcontractor shall provide access for follow on Trade Subcontractors. It is not the intention for this Trade Subcontractor to install leave-out or pour-backs, but locations of egress, access, etc. must be coordinated with the CM/GC. There are no other permanent concrete work in this package, except for the Mud Slab as indicated in the drawings.

TG03.00-0035 **TG03 Question 0035 - Temporary Power** **Closed** **08/10/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Project Bid Manual IV.A. 17.a

Trade Subcontractor Requirements
Q Please confirm that the Owner/TJPA will pay the cost of Temporary Power consumption.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/09/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The cost of temporary power as defined in the Bidding Manual Appendix A, Section IV.B.A.17, shall be paid by the TJPA.

TG03.00-0036 **TG03 Question 0036 - Unit Prices** **Closed** **08/10/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 10 20 Section 01 10 20 describes a schedule of unit prices.

Trade Subcontractor Requirements
Q - These items are not shown on the Schedule of Bid Prices found in Exhibit A. How is the contractor to communicate what his applicable bid prices are?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/10/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 01 10 20/APA will be revised in a future Addendum.

TG03.00-0037 **TG03 Question 0037 - Dewatering** **Closed** **08/10/2010** **08/17/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference 31 23 19

Trade Subcontractor Requirements
Q - Section 31 23 19,Dewatering, is unclear regarding the duration that the Trade Subcontractor remains responsible

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Operation and maintenance of dewatering system shall be paid by unit prices, with 72 months defined as the baseline for bid defined in Bid Manual Exhibit A. This shall be reflected in 01 10 20/APA which will be revised and issued with an upcoming Addendum.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

for maintaining the dewatering system. Please provide details of how long the Trade Subcontractor is responsible for the system. Is the system to be turned over to a follow on Subcontractor? Is the dewatering system to be removed by the Trade Subcontractor for the BSE package? If so, when?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/10/2010

2. Upon completion of operation and maintenance of the dewatering system as instructed by TJPA, dewatering contractor is responsible for the deactivation and removal of the system. See Bid Item C-18 in Schedule of Bid prices.

TG03.00-0038 **TG03 Question 0038 - Temporary Power** **Closed** **08/17/2010** **08/31/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A Attachment 2

Q - Logistics, drawing sheet SL-003 Skid Layout (5) has notation "NOT INCLUDED IN THIS SERVICE REQUEST"
Q -Please confirm that the Owner/TJPA will be providing this Skid, typically per detail 4/SL-003

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. The layout for Skid 5 has not been finalized with PG&E. Contractor anticipates it will be in the general location shown on the drawing; however, that is subject to PG&E's final acceptance.

TG03.00-0039 **TG03 Question 0039 - Access Trestle** **Closed** **08/11/2010** **08/18/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A - Attachment 3.1

Q - Please confirm access trestle shall be designed (similar to Temp Bridges)for a Manitowoc Crane 999 Series 2 which weigh's approximately 475,000 lbs

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Design load criteria for equipment on the Access Trestle is specified in Exhibit A, Attachment 3.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/11/2010

TG03.00-0040 **TG03 Question 0040 - Access Trestle** **Closed** **08/11/2010** **08/17/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference A3-2 and drawing sheet SL-001

Q - Please confirm it is the intent of the drawings that the access trestle extends all the way eastward to col line 35+9.75 such that the Trade Subcontractor can access the trestle at the intersection of col line E and col line 35+9.75 (ie; at the east end cdsm wall).

Submitted by Kelly Turner Granite / CJA / NCC Joint Venture 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed for access only, provided Contractor is given access to Parcel N and N', per Specification 01 14 19, 1.4.A.

Response by Webcor / Obayashi JV 08/16/2010

TG03.00-0041 **TG03 Question 0041 - Grid Spacing** **Closed** **08/11/2010** **08/17/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheets GT-0100, S1-2022, & S1-2027

Q - The structural drawings show grid spacing @42'-6". This makes the distance between Grid 1 & 35 equal to 1,445'. Drawing GT-0100 gives cordinates and a dimension of 1,462.54' between 1 & 35. Please clarify.

Submitted by Shad Gardner Balfour Beatty 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GT-0100 is correct. Not every structural bay is the same dimension.

TG03.00-0042 **TG03 Question 0042 - Dimensions** **Closed** **08/11/2010** **08/17/2010** **08/17/2010** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-2101

Q - Dimensions to the radius' center point for wall segment R2-1 do not correspond to the given radius. Please revise.

Submitted by Shad Gardner Balfour Beatty 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This will be corrected in an Addendum.

TG03.00-0043 **TG03 Question 0043 - Liquidated Damages** **Closed** **08/11/2010** **08/17/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A Section 5 last paragraph references Specification 00 05 20 for resposibilities for liquidated damages.

Q - The liquidated damages described in 00 05 20 are based on a requirement for the completion of Trade package No. 1 in 1,825 calendar days beginning with Notice to Proceed with Pre-Construction Services. 1) Please provide the Notice to Proceed date for Pre-Construction Services. 2) Please advise how liquidated damages will be assessed for late completion of Zone 1, Zone 2, Zone 3, and Zone 4. Since any of these zones could potentially be late, it is not clear how the CM/GC will assess potential LD's.

Submitted by Kelly Turner Granite / CJA / NCC Joint Venture 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is anticipated that NTPs will be issued as described in the IFB. Liquidated damages as well as Contractor¿s costs and those of other Trade Subcontractor¿s may be assessed if the late completion of any zone impacts the critical path of the project or affects the work of follow on Trade Subcontractors.

TG03.00-0044 **TG03 Question 0044 - Existing Utilities** **Closed** **08/11/2010** **08/17/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet D-2230

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1) Protect in place active existing sanitary and combined sewers, manholes, catch basins and storm

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Q - Note #2 states that, unless otherwise specified, all utilities to be removed have been cut and capped. The only remaining utilities shown to be cut and capped are the sewer systems at First, Fremont, and Beale. We interpret this note to mean that, except for the sewer systems discussed, there are no other active utilities in the work zone (including in First St, Fremont St, and Beale). 1) Please confirm there are no other active utilities that the Trade Subcontractor has to either cut/cap or maintain in place. 2) If there are other utilities that have to be cut and capped, please provide specific details. 3) If there are other utilities that have to be maintained in place, please provide specific details.

Submitted by Kelly Turner Granite / CJA / NCC Joint Venture 08/11/2010

drain culverts as indicated on the plans. Protect in place NEW active sewers constructed as part of the Relocation of Utilities Project as shown on the plans. Coordinate with and protect in place NEW active utilities (PG&E and Verizon) constructed by the private utilities that will be supported by the temporary bridge. With the exception of the utilities indicated, all known active utilities will be demolished capped and/or plugged by the Relocation of Utilities Project at the demarcation line indicated in the plans. The Relocation of Utilities Project includes exploratory subsurface trench explorations in First, Fremont, Beale, Minna and Natoma streets at the demarcation line where the new CDSM wall crosses perpendicular to each street. Following subsurface investigations, all unknown (as well as known) active and inactive encountered utilities will be demolished capped and/or plugged at these locations by the Relocation of Utilities Project.

2) Demolish and plug existing sewers per City of San Francisco Standard Plans and Specifications.

3) See response to part 1.

Responded by David Fyfe (URS Corporation)

TG03.00-0045 **TG03 Question 0045 - Escrow Documents** **Closed** **08/12/2010** **08/18/2010** **08/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 00 02 12, 1.3.A

Q - Paragraph 1.3A states escrow documents are to be submitted within 3 working days after the date of bid opening. This contradicts Project Bidding Manual page 15 which states that escrow documents are to be submitted within 3 calendar days after the bid opening date. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Three working days is correct. An Addendum will be issued.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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Submitted by Kelly Turner Granite /CJA / NCC Joint Venture 08/11/2010

TG03.00-0046 **TG03 Question 0046 - Construction Schedule** **Closed** **08/12/2010** **08/18/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 13 10, 1.2.B

Q - Paragraph 1.2B states a construction schedule is to be submitted within 15 days after bid package Notice to Proceed. This contradicts Exhibit A Section 5 which states the schedule is to be submitted within 15 calendar days of award. Please clarify.

Submitted by Kelly Turner Granite / CJA / NCC Joint Venture 08/11/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Exhibit A requirement of 15 calendar days of award shall apply and supersedes the specification.

TG03.00-0047 **TG03 Question 0047 - SBE Program** **Closed** **08/12/2010** **08/18/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference Exhibit A, Part IV and specification 00 08 21, paragraph B, item D and paragraph 1.3, item B.

Q - Exhibit A, Part IV., Scope of the Package and Bid Item Information, Paragraph B., General Work, Item D., SBE Program states "Trade Subcontractor shall obtain a minimum SBE participation of 24% of the total value of Trade Subcontractor's bid value." However, Section 00 08 21, Disadvantaged & Small Business Enterprise and Equal Employment Opportunity/Employment Nondiscrimination Requirements, Paragraph 1.3 Small Business Enterprise (SBE) Program Requirements, Item B. states "The TJPA has established an SBE Utilization

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

That assumption is correct. 17% is the overall SBE goal for the entire CM/GC contract. The CM/GC will set varying percentages for each individual package, and the goal for this package is 24%.

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Goal of 17% overall for this Contract."

Are we correct in assuming that the SBE participation is to be 24% of our bid value for this contract (Contract No. 08-04-CMGC-000), but that the SBE Goal for the entire Transit Center Project is 17%?

Submitted by Gerald Brown Tutor-Salib Corporation
08/12/20101

TG03.00-0048 **TG03 Question 0048 - Instruction to Bidders** **Closed** **08/12/2010** **08/18/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Instruction To Bidders, subparagraph D.

Q - Reference is made to Part III. Instruction to Bidders, Subparagraph D., Bidding Process and Procedures, Item 6. Statutory Bidding Requirements, Subitem b) Bidders Qualification Statement (1) which states that "Bidder shall list on the Bidder's Qualification Statement (BQS in Forms Section) its current contractor license number. . ." we can not find such a form. Please provide.

Submitted by Gerald W. Brown Tutor-Saliba Corporation
08/12/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

BQS Form is not required. This will be removed from the Project Bidding Manual in a future Addendum.

TG03.00-0049 **TG03 Question 0050 - Bid Due Date** **Closed** **08/12/2010** **08/18/2010** **08/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference Part III Instruction to Bidders, Section V, Paragraph A, Item 3

Q - Reference is made to Part III. Instruction to Bidders,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This request is granted. This form is not required to be submitted with the Bid. The Instructions to Bidders will be revised in a forthcoming addendum.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Section V., Webcor/Obayashi Bidding Forms, Paragraph A., Bidding Checklist (BCL), Item 3. which states "Each Bidder shall submit with its Bid the following forms, properly completed and executed." Following this statement there are various forms listed including "Escrow Agreement for Security Deposits in Lieu of Retention (Section 00 06 30)." Since this "Escrow Agreement for Security Deposits in Lieu of Retention" form states that - "pursuant to the construction contract entered into between the TJPA and Contractor for Transbay Transit Center. . . in the amount of _____ dated _____ ", we request that this form be among those forms submitted by the successful Trade Subcontractor after the Notice of Intent to Award and not with the bid form. Please advise.

Submitted by Gerald W. Brown Tutor-Saliba Corporation
08/12/2010

TG03.00-0050 **TG03 Question 0050 - Bid Due Date** **Closed** **08/12/2010** **08/18/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference Transbay Terminal Center Bid Package TG03 Shoring, Buttress and Excavation (Cont.)

Q - We have started into our second week of intensive review of bid documents and drawings in which to grasp what is prescriptive work and what requires additional contractor design and scheduling in our bid proposal preparation. Having been involved in not only pre-bid contractor designed support-of-excavations but final design and construction of numerous deep supported excavations in urban environments in numerous cities in California, we look forward to working on this unique and challenging project. This project brings additional elements to be considered during design of support-of-excavation and traffic supported trestles that would not normally be considered in below street level construction. One, the width of the supported excavation at approximately one hundred and eighty L.F., will require at least two

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A forthcoming Addendum will include a time extension of 4 weeks beyond the current bid date. The TJPA will continue to monitor contractor questions and the content of future addenda to be satisfied it allows a reasonable period to finalize contractor bids.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

intermediate vertical piles to support the horizontal bracing levels. Second, the need to incorporate both longitudinal and transverse traffic trestle decking whose vertical support locations will add to the constraints and interference with the location of the horizontal bracing levels. Third, the phasing of the shoring and excavation will require various locations of bracing levels of the CDSM cut-off walls. Fourth, the tie-down anchors will have to be designed to meet project specifications. Fifth, the volume of information including as-builts and the myriad of geotechnical information provided will consume considerable time which our designers can ill afford not to digest the pertinent information. And lastly, the tremendous coordination and evaluation of the various key subcontractors scopes and proposals will be itself a considerable effort since various proprietary information will be provided to them for pricing Tutor-Saliba's in-house designs. For these various reasons, we strongly urge a postponement of at least four weeks to the current scheduled bid date of September 14th in which we can properly develop the most complete and competitive design concepts and pricing proposal to Webcor/Obayashi. It is very important that you evaluate this request in a timely manner in which we can allocate the limited time available to our engineering and estimating forces. Your timely written response is appreciated.

Submitted by Gerald W. Brown Tutor-Saliba Corporation
08/12/2010

TG03.00-0051 **TG03 Question 0051 - Elevations** **Closed** **08/13/2010** **08/19/2010** **08/19/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1100 and drawing tables 3, 4, 7 & 8

Q - The lateral earth pressure diagram and tables 3&4 have the top street at elevation +4, but tables 7&8 show

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Tables 3, 4, 7, & 8 on sheet GT-1100 will be revised in an Addendum to show the top strut elevation as +4ft. Note that, per note 10 on GT-1111, the top strut elevation shall be determined by the Contractor.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

elevation +6 Which is correct

Submitted by Shad Gardner Balfour Beatty 08/13/2010

TG03.00-0052 **TG03 Question 0052 - Mud Slab** **Closed** **08/16/2010** **08/22/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheets S1-3003 & A1-8711.

Q - Detail 2/S1-3003 indicates a 3" Mud slab (SAD). Detail 2/A1-8711 indicates a 4" Mud Slab w/ 6"X6" Wire Mesh. Please confirm that the Architectural detail governs, and that the BSE sope ends at the top of Mud Slab and WPM and up by others.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Mud slab is shown on 5/S1-3003 (Addendum #1). The BSE scope of work does not include the waterproofing, protection board, concrete protection slab and 5' thick mat slab on top of the mud slab. The mud slab reinforcing shown in the "for reference only" drawings 2/A1-8711 will be revised in an Addendum to match the structural drawings.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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TG03.00-0053	TG03 Question 0053 - Internal Bracing	Closed	08/16/2010	08/22/2010	08/18/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 55 00.

Q - Section 1.5 N states that primary struts are to be proof loaded to 125% of maximum design force. This appears to be either in conflict with 1.5 O, or is referring to something other than pre-loading by jacking. We note that proof load is defined, but the definition appears to be similar to what is generally understood by pre-load. Please clarify intent of proof loading.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proof load and preload are not the same. There is no conflict.

Responded by Fyfe, David (URS Corporation)

TG03.00-0054	TG03 Question 0054 - Internal Bracing	Closed	08/16/2010	08/22/2010	08/18/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1110

Q - Loads for re-bracing struts or rakers are not given on sheet GT-1110. Please clarify required loads.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Strut loads in the build-out case can be determined by the Contractor based on the information provided on GT-1110.

TG03.00-0055	TG03 Question 0055 - Internal Bracing	Closed	08/16/2010	08/22/2010	08/26/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference drawing sheet GT-2101.

Q - Is the use of tiebacks acceptable for support of this wall segment? Is the project planning on eventually taking the properties under which such tiebacks would be placed?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The property is identified for property acquisition.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

TG03.00-0056 **TG03 Question 0056 - Access Trestle Permanent Structure** **Closed** **08/16/2010** **08/22/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, Attachment 3 A.

Q - We note that the access trestle is to be coordinated with permanent construction, not conflict with the permanent structure except for penetrations, and is to be at the same level of the temporary bridges at the connections. This would appear to require that the trestle deck be below the bottom of the ground floor permanent structure section, with built-up ramps to match the street bridges. We also note that the permanent ground level structure is lower at the street crossings than elsewhere. This would push the trestle deck further down, conflicting with the limits of placement of the top level bracing strut. No guidance is given regarding how the future Trade Subcontractor will want to use the trestle to construct the ground floor or the superstructure. Please clarify where the top of trestle deck is intended to be located, and whether it is acceptable to locate the trestle deck at ground floor level, such that it could be used for sequential construction of the ground floor and superstructure.Is there an upturned longitudinal beam down the middle of the street crossings? . Schedule A on S1-3201 only indicates a 30" slab.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A. Per Exhibit A, Attachment 3 "The level of the Access Trestle shall be the same as the level of the Temporary Bridges at the connections."

B.(insert TT answer)

TG03.00-0057 **TG03 Question 0057 - Access Trestle** **Closed** **08/16/2010** **08/22/2010** **08/19/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Exhibit A, Attachment 3

Q - Crane load is indicated to be considered at any location on the access trestle. Only total weight is given, not the concentrated load that occurs when the crane reaches out on one side or the other to the maximum under load. Please confirm that the trestle is to accommodate the crane operating, not just standing or walking, at any location on the trestle.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed.

TG03.00-0058 **TG03 Question 0058 - Internal Bracing** **Closed** **08/17/2010** **08/31/2010** **08/22/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1111 Legend. A.

Q - Please help to clarify the strut and waler system stiffness requirements. Our initial interpretation and the associated analyses indicate that strut and waler sizes increase very significantly over what would be required by strength considerations alone. Please provide a sample calculation or procedure for determining stiffness for comparison with the values given in kip per foot, per foot of wall. B. Pre-loading will take out a portion of the axial shortening of the struts. We assume that it is appropriate to subtract out that deflection from the stiffness calculation. Please confirm.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The strut and waler system stiffnesses are governed by the need to control ground movements outside the excavation. Consequently the operational stresses in struts and walers implied by the specified stiffnesses will be lower than would be obtained by factoring ultimate stresses. See Attached SSK-RFI TG0300-058. Question B is not clear.

TG03.00-0059 **TG03 Question 0059 - Demolition** **Closed** **08/16/2010** **08/22/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:
Reference D-1076 (Existing Terminal Demo).

Q - Existing Terminal Demolition Drawing D-1076 indicates (E) Cantilever Wall for 301 Mission St Building (60 story Tower) to be relocated by others. Please confirm this will be completed prior to the TG03 Work in this area.

Submitted by Charles M. Gardner Kiewit Infrastructure West Co. 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Confirmed.

TG03.00-0060 **TG03 Question 0060 - Milestones** **Closed** **08/16/2010** **08/22/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:
Reference Exhibit A Section V

Q - Milestones indicates the Trade Subcontractor is to provide all submittals within 10 days of NTP #1. This contradicts innumerable sections of the specifications which provide specific and reasonable time frames for submittals. It is not reasonable to expect all submittals to be delivered within 10 days of NTP #1. Please provide clarification on the contract requirements for delivery of submittals.

Submitted by Kelly Turner Granite / CJA / NCC Joint Venture 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Refer to answer to TG0300-0013.

TG03.00-0061 **TG03 Question 0061 - Micropile** **Closed** **08/16/2010** **08/22/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:
Reference specification 31 63 33, 2.1.A.2.

Q - Specification require micropile contractor to select

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
145 psi grout pressure is a minimum requirement.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

installation means & methods to develop load capacity & performance required by project documents. Paragraph 2.1.A.2 dictates an installation method of grout pressure at least 145 psi. We request this sentence is removed since it appears to conflict with objective of contractor selected construction procedures.

Submitted by Rob Jameson Malcolm Drilling 08/13/2010

TG03.00-0062 **TG03 Question 0062 - Micropile** **Closed** **08/17/2010** **08/31/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference specification 32 63 33, 3.1.B. & 3.7.B.

Q - Section 3.7.B requires temporary casing or other method of drill hole support in caving or unstable ground. By reference to Section 3.1.B & 3.7.B we understand that use of fluid containing bentonite, drilling mud or chemical stabilizers will not be permitted on the project.

Submitted by Rob Jameson Malcolm Drilling 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Drilling mud or chemical stabilizers are not to be used.

TG03.00-0063 **TG03 Question 0063 - Micropile** **Closed** **08/16/2010** **08/22/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference specification 33 63 33, 3.2.C.K.2.

Q - Performance test acceptance criteria is defined in terms of parameter "T" - maximum test load. Parameter T is not defined in performance test schedule. By referral to proof test schedule we infer: T = 1.4 x 1.1 x Design Load Please confirm or provide definition of "T" which is applicable to performance test acceptance.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Performance test load is specified in table A of specification section 31 63 33.

F=1.4 x F.S. x Design Load

F.S. = 2.0

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Submitted by Rob Jameson Malcolm Drilling 08/13/2010

TG03.00-0064 **TG03 Question 0064 - Micropile** **Closed** **08/16/2010** **08/22/2010** **08/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference specification 34 63 33, 3.5.D. & A.

Q - Per Micropile allowable construction tolerance, centerline of piling shall not more than 3" from indicated location on drawings. We understand that centerline of reinforcing shall be not more than 0.5" from centerline of pile, I.E. tolerance is cumulative such that reinforcing cannot exceed 3.5" from plan centerline location. Please confirm.

Submitted by Rob Jameson Malcolm Drilling 08/13/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Specification 34 63 33 / 3.5.D will be revised in an Addendum to read as "Centerline of reinforcing steel shall not be more than 0.5 inch from centerline of the pile."

TG03.00-0065 **TG03 Question 0065 - Bid Due Date** **Closed** **08/17/2010** **08/24/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Gerry MacClelland

Co-Author:

REQUEST:

Our QBD 1 sent on 8/9/10 requested an 8-week extension to the bidding period and provided reasons for our request. We would like to reiterate our concern that it is not possible to provide an accurate design-build bid of this magnitude within the currently allocated 6-week period. (Bidder Name - hiden) requests that the CM/GC decide as soon as possible whether or not the bid period will be extended and notify all bidders of the decision. If SST does not receive notification of a bid extension by Friday, Aug. 20, it may determine that it cannot cannot continue to participate in this procurement.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A forthcoming Addendum will include a time extension of 4 weeks beyond the current bid date. The TJPA will continue to monitor contractor questions and the content of future addenda to be satisfied it allows a reasonable period to finalize contractor bids

Webcor/Obayashi Joint Venture

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Submitted by Rich Zito
Shimmick / Skanska / Traylor Joint Venture (SST)
08/17/2010

TG03.00-0066 **TG03 Question 0066 - Temporary Power** **Closed** **08/18/2010** **08/24/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Proect Bidding Manual, IV.A.17(a)

Project Bidding Manual states, "Contractor will provide temporary power to distribution points in the Site Logistics plan (see Exhibit A) for the project. Subcontractor shall be responsible for all temporary power needs to complete their work beyond the distribution points provided by Contractor. Contractor will not provide temporary power for welding." A.Will the Owner (TJPA) pay for temporary power consumption, or does the Trade Subcontractor put thisin our Bid? B. Will the distribution points require separate metering for welding?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A. Refer to TG0300-0035.

B. Refer to Project Bidding Manual, Section IV.17.

TG03.00-0067 **TG03 Question 0067 - Hazardous Waste** **Closed** **08/18/2010** **09/01/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference specification 01 13 50, 1.5.I & 1.5.H.

Please confirm that "The TJPA is the "generator",...,of any hazardous waste,.." 01 13 50 1.5.I, and that, "The TJPA Representative only (and not the Contractor) will sign the manifestfor the generator of the waste."

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. As stated in 01 13 50 ¿ 1.5.I, TJPA is the ¿generator¿ of any hazardous waste encountered at the site, as exist, in the course of performance of the Work, but TJPA will not be responsible to any hazardous waste generated by the Contractor working at the Site, and the Contractor will be the generator of

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/17/2010

that material.
2. As per 01 13 50 ¿ 1.8.H, TJPA Representative will sign the manifest for the generator of hazardous waste, except the hazardous waste generated by the Contractor as stated above.

TG03.00-0068 **TG03 Question 0068 - OCS System** **Closed** **08/18/2010** **08/24/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

A.Will the OCS system be removed to allow crane access across the temp bridges? If so, when? B. What closures (time/duration) will be allowed for the installation of the temporary bridges?

Submitted by Charles M. Garnder
Kiewit Infrastructure West Co.
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

A. OCS system can be removed and reinstalled by the Trade Subcontractor anytime at their convenience, as coordinated with local agencies. This shall be included in the scope of the work.

B. Please refer to the traffic control specification. This shall be included in an upcoming addendum.

TG03.00-0069 **TG03 Question 0069 - Permits** **Closed** **08/18/2010** **08/24/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bidding Manual, IV.A.6 and specification 01 14 10.

Project Bidding Manual IV.4.6 a0 states "Trade Subcontractor shall obtain all required ancillary permits to complete their scope in a timely manner. Refer to Specifications Section 01 14 10 for project permits" Specification 01 14 10 does not distinguish between the Contractor and the Trade Subcontractor. Please clarify specifically which permits are considered "ancillary" and not reimbursed by TJPA. (I.e DPW Tree Planting / Removal, Rock Wheel? SFMTA Traffic Control Plan?, etc.)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to TG0300-0024.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/17/2010

TG03.00-0070 **TG03 Question 0070 - CDSM** **Closed** **08/18/2010** **08/24/2010** **08/19/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheets GT2101, GT2101, GT2103, S1-2027, & S1-2030.

The Drawings GT 2101, GT 2102, GT2103 show one CDSM Layout and Drawings S1 2022 thru S1 2027, S1 2030 show another CDSM Layout and the dimensioning do not match, the distance to CL of CDSM at A /1 and A / 35 do not match between the two different Layouts.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GT 2101, GT 2102, GT 2103 take precedent.

TG03.00-0071 **TG03 Question 0071 - As-Built Drawings** **Closed** **08/18/2010** **08/24/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 17 20.

Who is responsible for utility relocation as-built drawings, TG03 or TG04?

Submitted by Charles M. Gardner
Kiewit Infrastrcutre West Co.
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Each Trade Subcontractor is responsible to provide as-builts for their contract work.

Webcor/Obayashi Joint Venture

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TG03.00-0072	TG03 Question 0072 - Electronic Files	Closed	08/18/2010	08/24/2010	08/18/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

1. Will the owner or general contractor please provide bidders with CADD digital files (preferably AutoCAD format) of the drawing provided to TG03 Trade Subcontractors?

2. Will the owner or general contractor please provide bidders with Primavera digital files for Exhibit I schedule contained in the bid package?

Submitted by Kelley Wigton
Shimmick / Skanska / Traylor JV (SST)
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Refer to answer to TG0300-0003.
2. No.

TG03.00-0073	TG03 Question 0073 - Existing Piles and Pile Caps	Closed	08/18/2010	08/24/2010	08/19/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

After reviewing the reference documents we are not able to find details of the existing San Francisco Terminal pile caps and piles to be removed. Document No. 1 in the attached listing appears to be the one we need. Where can we get a copy of this document and any other pertinent as-built drawings for the existing terminal structure?

Submitted by Kelley Wigton
Shimmick / Skanska / Traylor JV (SST)
08/17/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This information is available and will be added to the TJPA FTP site referenced in Section 00 03 31.1.1B. A hard copy will be provided to Webcor/Obayashi. An addendum will be issued adding a reference to these requested drawings to Section 00 03 31.1.2D

TG03.00-0074	TG03 Question 0074 - Tax Certificate	Closed	08/18/2010	08/24/2010	08/20/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bidding Manual, Section V, paragraph A (BCL), #3

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Specification Section 00 04 54.

Webcor/Obayashi Joint Venture

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Item # 3 requires each bidder to provide a specifically what certificate is required. Is this certificate issued by the State or by the Federal government? It is our understanding that General Partnerships are not usually registered with the State of California, therefore this document would presumably be a Federal certificate. Please advise.

Submitted by Chad Trabucco
Shimmick / Skanska / Traylor JV (SST)
08/18/2010

TG03.00-0075 **TG03 Question 0075 - Temporary Bridge** **Closed** **08/19/2010** **08/25/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 53 13, paragraph 1.3.A.1

Specification states "design shall include cross bridge travel¿ including typical semi truck traffic and a fully assembled Manitowoc 999 crane weighing 500,000 lbs traveling from trestle to trestle without a hook load." Please verify it is the intent of the specifications that the 999 crane only travels across the temp street while moving from trestle to trestle and that the temp street design does not have to include the Manitowoc 999 loading at any other area of the temporary street.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
8/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Manitowoc 999 crane loading applies to the entire length of the bridge.

Fyfe, David (URS Corporation)

TG03.00-0076 **TG03 Question 0076 - Access Trestle** **Closed** **08/19/2010** **08/25/2010** **08/19/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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REQUEST:

Reference Exhibit A

Attachment 3, Access Trestle Criteria, states "The level of the access trestle shall be the same as the level of the Temporary Bridges at the connections." Attachment 3 also states "The layout for each member of the Access Trestle¿. shall not conflict with the permanent structure¿" Tying the trestle to the cross streets will cause the trestle structure (which is approx 7' deep) to conflict with the concrete roof of the follow on structure. It is our understanding that the CM/GC understands this and will coordinate the removal of the acess trestle and the temp streets such that the concrete roof can be constructed after these conflicting structures are removed. Pls confirm.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Coordination is the responsibility of the Trade Subcontractor. Temporary roadways/bridges must remain in place until the permanent structure can support the permanent roadway.

TG03.00-0077 **TG03 Question 0077 - Mat Slab Pile Sleeve** **Closed** **08/19/2010** **08/25/2010** **08/18/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: 2/S1-3003

Slip Detail @ Trestle Pile/Mat connection shows a pipe sleeve over the trestle pipe pile to allow for vertical movement of the mat slab per Note 2. Not clear how that will be achieved since the detail shows the Mat slab with the mud slab directly bearing on the concrete encasement of the trestle pipe pile. Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The slip detail is to allow the mat slab (and the waterproofing to adhere to the mat slab) to move upward when ground water table rises to the design level (mat slab will move up approximately 1" under the designed ground water pressure).

TG03.00-0078 **TG03 Question 0078 - CSM** **Closed** **08/19/2010** **08/25/2010** **08/19/2010** **Potentially** ☐

Webcor/Obayashi Joint Venture

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From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: CSM Width/GT-5101

Plan Sheet 35 of 105, GT-5101, detail 2 shows 3' diameter multi auger soil mixing or a cutter soil mixing system (CSM) with conflicting widths. The stated width is 3'-6", yet the schedule width equals 3'-0", which matches dimension of the multi auger system. However, a 30" wide CSM system and a 36" multi auger system provide the same minimum width. Please confirm the desired width of the CSM system, 30, 36, or 42 inches.

Submitted by Andres Melgoza
Drill Tech & Shoring Inc
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 3'-6" dimension for the CSM system on detail 2/GT-5101 should read 3"-6" maximum. GT-5101 will be revised to reflect this in an Addendum.

TG03.00-0079 **TG03 Question 0079 - Insurance** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference General Requirements - Insurance

Says surveyor must carry professional liability of $25 million/claim. What general liability would the surveyor need to carry? I assume it is not the $100 million/occurrence as noted for the trade subcontractors. The insurance would cost the surveyor more than it would cost to survey the project.

Submitted by Lyndi Love
MVE
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

With respect to land surveyors only, the Trade Subcontractor or its retained engineers should only have to evidence $1,000,000 in professional liability insurance covering that scope of work, consistent with the standard requirements set forth in Article 16 of the Long Form Subcontract. This will be included in Addendum 3.

TG03.00-0080 **TG03 Question 0080 - Schedule** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Webcor/Obayashi Joint Venture

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REQUEST:

Reference Exhibit A, Section V

Reference NTP #6, 7, 8, 9, and 10. Please provide specifc dates when the Trade Subcontractor will be required to perform the removal work associated with these NTP's. It is not possible to estimate costs for managing and maintaining this project without that specific information.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Exhibit I, BSE Concept Schedule.

TG03.00-0081 **TG03 Question 0081 - Police Officers** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 15 70, 3.4.A

Section states "Contractor shall provide uniformed...police officers¿ as required by the TJPA representative..." It is our understanding that per the contract definitions, the Contractor is defined to be Webcor/Ohbayashi. Please confirm that Webcor/Ohbayashi will direct and pay the costs for the uniformed officers described herein. If it is the intent of the contract that the Trade Subcontractor direct and pay the costs for these officers, please provide specific guidelines on when these officers will be required. Simply stating "as required by TJPA" will result in exorbitant bid costs due to the lack of specific information provided. Suggest an allowance for this.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/18/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Trade Subcontractor shall pay for the cost of the 10B officers and this cost will be reimbursable. This will be issued in a upcoming addendum.

TG03.00-0082 **TG03 Question 0082 - Internal Bracing** **Closed** **08/19/2010** **08/25/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Ref: GT-1110

Ref Note 3 "strut loads are working stress level." Regarding 301 Mission Buttress Case Table 3 & 7; is Table 7 loading cumulative, or must Table 3 & Table 7 be additive? Regardless of cumulative or additive do Table 3 & 7 loads represent "working stress level"?

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Tables 5, 6, 7, and 8 are additive to Tables 1, 2, 3, and 4, respectively. All loads in these tables are working stress. Note: Tables 3 and 7 have been revised in Addendum 2.

TG03.00-0083 **TG03 Question 0083 - Dimensions** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Ref: GT-2101

Reference drawing sheet GT-2101 Verify Shoring Wall Radius (594') at wall segment R2-1 and or dimensions to radius center line (170'-2 1/2" & 220'-9"). Radius & Center as identified do not work with layout as shown.

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This will be corrected in an Addendum.

TG03.00-0084 **TG03 Question 0084 - Dimensions** **Closed** **08/19/2010** **08/25/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-2101

Ref Note #16 (RE: Wall Segment X1-1) 1. At what stage of excavation in zone #1 will wall X1-1 be removed? 2. Can

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See reply to RFI 0055.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

tiebacks be used to support wall segment X1-1?

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

TG03.00-0085 **TG03 Question 0085 - Cut Off Wall** **Closed** **08/19/2010** **08/25/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet GT-2103.

Is cutoff wall between grids 33 & 34 required? Schedule appears to show excavation on both sides of this wall going down at the same time.

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Note 12 on drawing GT-2101 regarding location of the cut-off walls.

Webcor/Obayashi Joint Venture

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TG03.00-0086	**TG03 Question 0086 - Wood Pile Removal**	**Closed**	**08/19/2010**	**08/25/2010**	**08/23/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheets GT-5000 & GT-5301.

1. Can wood piles be drilled out and material (Grout) replaced VRS extracted and grouted as shown.

2. How does removal of wood piles and placement buttress piles work with regard to schedule.

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Evaluation of the Contractor's proposed alternative method for extracting the existing timber piles requires more detail than that included in the RFI. Except where Non-Ground Deformation Control Methods are noted as acceptable on the Drawings, pulling out timber piles directly from the ground and grouting without any precautionary measures to control settlements caused by pile extraction is prohibited.

TG03.00-0087	**TG03 Question 0087 - Dimensions**	**Closed**	**08/19/2010**	**08/25/2010**	**08/23/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheets S1-2030, S1-2029, & GT-2103

Drawings appear to have made contradiction regarding limits of contract VRS location of shoring wall at both SW and SE project corners.

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See response to RFI 0070.

TG03.00-0088	**TG03 Question 0088 - Train Platforms**	**Closed**	**08/19/2010**	**08/25/2010**	**08/23/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Will train platforms be constructed prior to/after removal of wall & Trestle/Bridge vertical support removal?

Submitted by Gerald W. Brown
Tutor-Saliba Corporation

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Train platforms construction is not in the scope of the work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

08/19/2010

TG03.00-0089 **TG03 Question 0089 - Access Trestle** **Closed** **08/19/2010** **08/25/2010** **08/20/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 53 13, 1.3.A.2

Do deflection limits for temp bridges also apply to work trestle?

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes. Refer to the the second paragraph of the "General" section of Attachment 3 in Exhibit A.

TG03.00-0090 **TG03 Question 0090 - Internal Bracing** **Closed** **08/19/2010** **08/25/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1112

Vertical supports of shoring are shown in all stages up to stage 16. Vertical supports will still be required at stage 16 and and beyond to support work trestle & roadways.

Submitted by Gerald W. Brown
Tutor-Salbia Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Noted

TG03.00-0091 **TG03 Question 0091 - Mat Slab Pile Sleeve** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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REQUEST:

Reference drawing sheet 2/S1-3003

What is the intent of this detail, how does it work and at what stage of construction is it to be installed?

Submitted by Gerald W. Brown
Tutor-Saliba Corporation
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This is a detail to illustrate the trestle pile design requirements.

Trestle pile is a contractor design/build item. Other than supporting the trestle, there are two issues that need to be addressed by the contractor:

1. Trestle Pile shall not restrict the mat slab from upward movement.

2. Trestle pile shall have two steel seep rings (as shown) with waterproofing/flashing integrated into the lower ring.

TG03.00-0092 **TG03 Question 0092 - Insurance** **Closed** **08/19/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibt A, paragraph section VI

4.F. as written is commercially unavailable. The clause requires Trade Subcontractor to maintain professional liability coverage continuously throughout the the term of the Contract, and without lapse, for 10 years beyond the Contract Final Final Completion date. The maximum policy term commercially available is 10 years combined for the construction and extended reporting period. A more usualreporting period is 3 years. Please change the extended reporting period to 3 years, or revise the requirement to a total of 10 years. Carrying $25,000,000 professional liability insurance for 10 years will addsignificant cost to the Project without corresponding benefit as the majority of the design performed by Trade Subcontractor is for temporary work rather than the permanent structure.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0001.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*
TG03.00-0093	**TG03 Question 0093 - Insurance**	**Closed**	**08/19/2010**	**08/25/2010**	**08/23/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, paragraph 1.B

Section 1.B requires the Trade Subcontractor to maintain $100,000,000 Commercial General Liability Insurance. Section 16.7 of the proposed subcontract between Webcor and the Trade Subcontractor requires that Sub-subcontractors carry the same amounts of coverage. Potential SBE sub-subcontractors will not be able to provide $100,000,000 CGL. As a result, Trade Subcontractors will not be able to reach the 24% SBE Goal. It is highly likely that all of the Trade Subcontractors will offer 0% SBE participation as a result of section 16.7. Please advise if Webcor intends to modify section 16.7 and if so, how will it specifically be changed?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/19/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In an upcoming addendum, the following language will be added to 1.B of Exhibit A, VI. Insurance Requirement: ¿Notwithstanding Section 16.7 of the Long Form Subcontract, the requirement to maintain $100,000,000 in Commercial General Liability Insurance shall apply ONLY to the bidding Trade Subcontractor. Sub-subcontractors/Lower-Tier Subcontractors shall maintain the levels of Commercial General Liability Insurance set forth in Section 16 of the Long Form Subcontract agreement.¿

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0094	TG03 Question 0094 - Vibration Level	Closed	08/23/2010	08/30/2010	08/25/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 00 35 65.

1.11.A. States "Limit or prohibit use of construction techniques that create high vibration levels. Do not drive piles"

1.11.C.3. States "Perform vibration intensive activities such as pile driving only on weekdays during daytime hours between 7 a.m. and 8 p.m."

These two sections contradict each other. Please confirm that pile driving, if desired, may be performed on this project.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There will be no hammer-driven piles on this project. References to pile driving in 01 35 65, 1.11.C.3 are for illustrative purposes only. Other construction techniques that may create high vibration levels are limited to the hours and times defined in section 1.11.C.3. Applicable vibration guidelines are issued b the FTA Office of Planning and Environment¿s Transit noise and Vibration Impact Assessment (Table 12-3 for building categories I, II and III).

TG03.00-0095	TG03 Question 0095 - Internal Bracing	Closed	08/23/2010	08/30/2010	08/23/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 55 00.

31 55 00 Internal Bracing for Shoring Wall 1.5.N Please clarify if primary struts can be proof loaded prior to installation or if they must be proof loaded once in place and all connections made.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proof load to be applied to the fully installed element.

Fyfe, David (URS Corporation)

TG03.00-0096	TG03 Question 0096 - Internal Bracing	Closed	08/23/2010	08/30/2010	08/26/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference drawing sheet GT-2101, note 16.

Note 16 on GT-2101 requires the internal bracing system to permit removal of wall segment X1-1 PRIOR to the completion of the excavation. When or at what stage of excavation will this wall be removed? Can tiebacks be used to support wall X1-1?

Submitted by Shad Gardner
Balfour Beatty
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Temporary tiebacks are acceptable on wall segment X1-1. The embedded length of the tieback shall not exceed 50 feet.

TG03.00-0097 **TG03 Question 0097 - Internal Bracing** **Closed** **08/23/2010** **08/30/2010** **10/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1111.

GT-1111 requires a minimum stiffness of the internal bracing system which makes strut sizes dependent on the strut's length & spacing regardless of the load. This makes a very inefficient bracing system . Would the Authority consider providing an allowable design deflection criteria, in lieu of the stiffness requirement.

Submitted by Shad Gardner
Balfour Beatty
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The revised shoring wall layout shown in Addendum 3 is too close to the final southwest train box wall. The latter will be placed once the adjacent properties are acquired and demolished. Tiebacks installed at shoring wall segment X1-1 would interfere with the installation of shoring at the final southwest train box wall. Consistent with response to RFI 272, tiebacks are not acceptable at wall segment X1-1.

TG03.00-0098 **TG03 Question 0098 - Cut-Off Wall** **Closed** **08/23/2010** **08/30/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference GT drawing set.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Cut-off walls do not serve any purpose of the final design. Other earth retaining systems can be used or

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The SCDSM cut-off walls are to be located by the contractor as needed. Do these walls serve any purpose for the final design? If not, can other earth retaining systems be used or could they be eliminated if they are not needed by the contractor.

Submitted by Shad Gardner
Balfour Beatty
08/23/2010

cut-off walls can be eliminated with Trade Subcontractor's means and methods if Trade Subcontractor can meet the milestone requirements without sectionalized dewatering.

TG03.00-0099 **TG03 Question 0099 - Dewatering** **Closed** **08/23/2010** **08/30/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 23 19, paragraph 1.3.A, drawing sheet S1-2024, Note A Exhibit I, and Schedule (Dewatering).

The above ref specification indicates TG03 dewatering system responsibility for duration of TG03 package. The referenced schedule shows dewatering thru March 2016. Note A DWS S1-2024 states dewatering maintained thru all dead load applications. Question: Does TG03 dewatering responsibility end Feb 2015 and remaining dewatering responsibility by subsequent contractors? (Pump Ownership/Pump/etc).

Submitted by John Foote
Balfour Beatty Infrastructure
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No. TG03 Trade Subcontractor shall have all responsibilities for dewatering work specified in Exhibit A, IV. C18 and C19. Specification Section 31 23 19 will be revised in a upcoming Addendum.

TG03.00-0100 **TG03 Question 0100 - Timber Pile Removal** **Closed** **08/23/2010** **08/30/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference drawing sheet GT-5000, Section 1.

Section 1 Stage 3(B) removes existing piles (this stage) Stage 4 notes that (E) Timber piles to be removed during excavation. Please clarify.

Submitted by John Foote
Balfour Beatty Infrastructure
08/23/2010

The existing piles to be removed in Stage 3 are those at the buttress, as shown on GT-2202.

TG03.00-0101 **TG03 Question 0101 - Demolition** **Closed** **08/23/2010** **08/30/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet D-2210.

There is a discrepancy in the drawing versus the reference information dated 8/19/2004 (Webcor Existing Foundation Conditions - Hemisphere - 80 Natoma Street). The summary of production piles shown on Table 1 of the Webcor information indicates that Pile 129 was not installed. Also per the Table Pile 145-149 and 153, 154 were installed which are not shown on sheet D2210. Please clarify.

Submitted by John Foote
Balfour Beatty Infrastructure
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Information shown on D-2210 is based on the 80 Natoma Shoring Plans. Webcor Builders, Tuan & Robinson Structural Engineers, Inc., May 6, 2004 (9 sheets).

Information provided within:

(a) 80 Natoma Existing Foundation Conditions. Webcor Builders, August 19, 2004 (1 sheet)
(b) Table, Pile Layout Numbering Drawing. Webcor, May 5, 2004 (1 sheet)
(c) Table, Summary of Production Piles, T&R Project No. 2397.07 (11 sheets)
(d) Drawings, Tubex Grout Injection Pile Details

American Pile Driving, Inc. (2 sheets) represents the as-built conditions and should be used for the extents of existing piles constructed as part of the 80 Natoma project.

Fyfe, David (URS Corporation)

TG03.00-0102 **TG03 Question 0102 - Demolition** **Closed** **08/23/2010** **08/30/2010** **08/30/2010** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet D2213.

Indicates that pile caps are already removed under Existing Terminal and Ramps Demolition Project. Sheet No. GT-5000 Section 1 shows that a portion of the pile caps are still existing. We assume that all pile caps and grade beams are removed under prior demolition contract on sheet D-2213.

Submitted by John Foote
Balfour Beatty Infrastructure
08/23/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Not all pile caps between Beale St. and Fremont St. will be removed under the Existing Terminal and Ramps Demolition Project (Contract No. 08-08-DM-000).

Sheet GT-5000 is diagrammatic only. Extent of existing pile caps to be removed under the Buttress, Shoring and Excavation Project (Contract No. 08-04-CMGC-000) are shown on sheet D-2213.

Fyfe, David (URS Corporation)

TG03.00-0103 **TG03 Question 0103 - Monitoring** **Closed** **08/24/2010** **08/31/2010** **09/04/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference specification 39 09 13

The plans show geotechnical instrumentation including inclinometers, MPBXs, piezometers and settlement points. Specification Section 39 09 13 states that "... Geotechnical instrumentation consists of inclinometers, settlement casings, settlement monitoring points, survey reference points, piezometers and multiple point borehole extensometers." The plans state that the geotechnical instruments for monitoring the TBT excavation and shoring work are to be drilled and installed by the TJPA representative. However, the specifications call for "...furnishing, installing, monitoring, reading, recording, maintaining, protecting ..... geotechnical instrumentation." The specifications go on to state that "...where shown on the drawings, the Contractor will procure and install the specified instrumentation." We find no notes on the plans calling for the Contractor to procure and install the specified instrumentation nor notes as to who is responsible for monitoring the shoring performance. The plans appear to be inconsistent with local practice in that it is customary in Northern California for the Contractor to furnish, install and monitor

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. All instrumentation shown on the 7/30/10 geotechnical drawings will be procured, installed, and monitored by the TJPA's Representative. The specifications describe monitoring, which is the responsibility of the contractor, e.g., monitoring procedures to check internal bracing performance in Section 31 55 00, and monitoring wells for the dewatering system in Section 31 23 19.

2. The TJPA will monitor ground movements inside and outside the excavation using the instruments shown on GT-1301 and 1302. The Contractor will monitor the internal bracing system.

3. The TJPA is evaluating the implementation of an automated data collection and management system which uses a web-based portal to assemble data generated by contractor, the TJPA's Representative, and others for examination by relevant parties. In lieu of this, the TJPA's Representative will read the instruments at a frequency dictated by the stage of construction and by the magnitude of movements observed.

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appropriate geotechnical instrumentation when the Contractor is responsible for constructing works involving deep excavations and shoring. We recognize the Internal Bracing Specification requires a monitoring program for struts, but is silent on exterior monitoring.

1. What is the Owner's intent in this regard?

2. Will the TJPA be responsible for the exterior monitoring as implied, and the Contractor be responsible for monitoring the performance of the shoring systems in the Specifications which state "...furnishing, installing, monitoring, reading, recording, maintaining, protecting ..... geotechnical instrumentation." , Or will the TJPA representatives read and monitor for all the geotechnical instrumentation?

3. If the TJPA representatives read the geotechnical instrumentation, will the TBJPA representatives take the geotechnical instrumentation data readings on a daily basis? If the TJPA representatives are to be responsible for timely reading and reporting on the shoring systems performance, will the TJPA representatives set up the geotechnical instrumentation to be read via dataloggers with in-situ sensors and cellular modems in the case of the inclinometers and/or similarly in the case of the piezometers and MPBXs? Timely notification of all parties should be required.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/23/2010

TG03.00-0104 **TG03 Question 0104 - Dewatering** **Closed** **08/24/2010** **08/31/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Per the Bid Documents, the Trade Subcontractor for the BSE package is responsible for removing the dewatering system. Is the Trade Subcontractor for the BSE package

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TG03 Trade Subcontractor will not be responsible for the pouring back of the void. Waterproofing will be installed by others. Dewatering well casing shall be

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also responsible for pouring back the void left in the base slab once the dewatering well is removed? We also request confirmation that the waterproofing will be tied into the dewatering well casing by others. Finally, please provide a detail for abandoning the well casing in place.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

capped and left in place.

TG03.00-0105 **TG03 Question 0105 - Utilities** **Closed** **08/24/2010** **08/31/2010** **10/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author:

REQUEST:

Can we get a copy of Site Utilities Trade Packages:

Package TG04.7
Package TG04.1
Package TG04.3
Package TG04.4
Package TG04.6

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see response TG0300-0287 that supersedes previously posted response TG0300-0104.

TG03.00-0106 **TG03 Question 0106 - Hazardous Material** **Closed** **08/24/2010** **08/31/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A

Please confirm that the "hazardous/High -PH" material that may result from the Perimeter Shoring Diaphragm wall, disposal costs will be included in the Shoring Wall

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed, only the existing hazardous material on site shall be included in the additive Class I and II Soil Disposal Premium.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Bid Items and not in the additive Class I and II Soil Disposal Premium.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/24/2010

TG03.00-0107 **TG03 Question 0107 - Internal Bracing** **Closed** **08/24/2010** **08/31/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 55 00.

In Spec Section 31 55 00 on Page 5 Sub-Section 1.5.B.3. it says that we are to include incidental loads defined by the Contractor (Webcor/Ob??). Can you Please define these loads now during the Bidding Process?

Submitted by Chrales M. Gardner
Kiewit Infrastructure West Co.
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The incidental loads shall be identified by Trade Subcontractor's Internal Bracing Designer and included in the internal bracing design

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TG03.00-0108 **TG03 Question 0108 - Internal Bracing** **Closed** **08/24/2010** **08/31/2010** **08/27/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet GT-1111, Legend

(TG0300-0058) requested: A. Please help to clarify the strut and waler system stiffness requirements. Our initial interpretation and the associated analyses indicate that strut and waler sizes increase very significantly over what would be required by strength considerations alone. Please provide a sample calculation or procedure for determining stiffness for comparison with the values given

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0058.

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in kip per foot, per foot of wall. B. Pre-loading will take out a portion of the axial shortening of the struts. We assume that it is appropriate to subtract out that deflection from the stiffness calculation. Please confirm.

Q/A Answers received this morning did not address this question, and can have a significant impacton the Contractor's design and potential for competetive underbidding of this project. We request your clarification on a priority basis as this may affect our decision to Bid this project.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/24/2010

TG03.00-0109 **TG03 Question 0109 - Utilities** **Closed** **08/25/2010** **09/01/2010** **08/27/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Response to question TG003-0044 states "Coordinate with and protect in place New active utilities (PG&E and Verizon) constructed by the private utilities that will be supported by the temporary bridge." Please advise where is the information regarding these new utilities so the Trade Subconractor can review them prior to bid? How does the Trade Subcontractor obtain this information?

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0105.

TG03.00-0110 **TG03 Question 0110 - Utilities** **Closed** **08/25/2010** **09/01/2010** **08/27/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Response to question TG003-0044 states "Protect in place New active sewers constructed as part of the Relocation of Utilities Project as shown on the plans." Please confirm that the project referenced is TG 04.5.1. As these are the only utility relocation plans available to the Trade Subcontractor, we need confirmation that these are the only drawings that must be reviewed prior to bid. If there are other plans the Trade Subcontractor must review in order to ascertain the impacts of new utility relocations, advise where they can be obtained.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0105.

TG03.00-0111 **TG03 Question 0111 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-204400, titled "Available: Start Shoring Zone 1" has a start date of 14Jul11. Please explain what this date means. Is the trade subcontractor to understand it cannot begin any zone 1 cdsm work (including pre-trenching) until this date? If so, is the date still accurate. Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 1 may commence upon the receipt of NTP #03.

TG03.00-0112 **TG03 Question 0112 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference BSE Concept Schedule.

Activity UT-204500, titled "Available: Start Shoring Zone 2" has a start date of 14Jul11. Please explain what this date means. Is the trade subcontractor to understand it cannot begin any zone 2 cdsm work (including pre-trenching) until this date? If so, is the date still accurate. Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 2 may commence upon the receipt of NTP #04.

TG03.00-0113 **TG03 Question 0113 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-201800, titled "Available: Start Phase 1 Cross Cross Shoring @ 1st Street". Please explain what this activity represents. What work is the Trade Subcontractor unable to perform before 15Jul11? Is this date still accurate? Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 2 may commence upon the receipt of NTP #04.

TG03.00-0114 **TG03 Question 0114 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-202400, titled "Franchise Utilities Phase 2 @

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

UT-202400 represents the public utilities relocation required after the installation of the traffic bridge at First Street.

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1st". Please explain what specific work this activity represents.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

TG03.00-0115 **TG03 Question 0115 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-200600, titled "Available: Start Shoring @ Zone 1 & 2 Minna"has a start date of 15Jul11. Please explain what this date means. Is the trade subcontractorto understand it cannot begin any zone 1 and 2 cdsm work (including pre-trenching) untilthis date? If so, is the date still accurate? Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 1 and 2 may commence upon the receipt of NTP #03 and NTP #04 respectively.

TG03.00-0116 **TG03 Question 0116 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-200900, titled "Start Shoring @ Zone 1 & 2 Natoma" has a start date of 02JUn11. Please explain what this date means. Is the trade subcontractor to understand it cannot begin any zone 1 and 2 cdsm work (including pre-trenching) until this date? If so, is the date still

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 1 and 2 may commence upon the receipt of NTP #03 and NTP #04 respectively.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

accurate? Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

TG03.00-0117 **TG03 Question 0117 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-203720, titled "Available: Start Shoring Zone 4" has a start date of 25Mar11. Please explain what this date means. Is the trade subcontractor to understand it cannot begin any zone 4 cdsm work (including pre-trenching) until this date? If so, is the date still accurate? Please clarify.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 4 may commence upon the receipt of NTP #02.

TG03.00-0118 **TG03 Question 0118 - Schedule** **Closed** **08/25/2010** **09/01/2010** **08/25/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BSE Concept Schedule.

Activity UT-201100, titled "Available: Start Shoring @ Zone 3 Natoma" has a start date of 18Mar11. Please explain what this date means. Is the trade subcontractor to understand it cannot begin any zone 3 cdsm work (including pre-trenching) until this date? If so, is the date still accurate? Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The attached schedule is a concept schedule for this particular Trade Package. The Trade Subcontractor shall provide a schedule that accurately represents their work plan in accordance with the contract documents. Work in Zone 3 may commence upon the receipt of NTP #05.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

TG03.00-0119 **TG03 Question 0119 - Shoring Wall** **Closed** **08/25/2010** **09/01/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-1110.

Drawing defines four different design cases for temporary shoring design. Please specify limits for each case relative to building column lines.

Submitted by Kelly Turner
Granite / CJA / NCC Joint Venture
08/24/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The limits of these cases is shown on GT-1110, "Reference Design Location Plan," with the following clarification: the boundary between Case West and Case East occurs at Grid 17 as shown on drawing.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0120	**TG03 Question 0120 - Dewatering**	**Closed**	**08/25/2010**	**09/01/2010**	**08/25/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 23 19, paragraph 1.1.A.

Please refer to our previous inquiry regarding dewatering. (TG0300-0099) The bid form docs show 72 mo for maint. However, the above spec section allows for "transfer of ownership." Our concern for 72 mo has to do with issues related to bond limits/duration; definition of final completion; and retention release. Also, what is the warranty period and when does it commence.

Submitted by John Foote
Balfour Beatty Infrastructure
08/25/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0099.

TG03.00-0121	**TG03 Question 0121 - Utilities**	**Closed**	**08/25/2010**	**09/01/2010**	**08/25/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Referene drawing sheet U-2009.

Per Transbay Transit Center Program Relocation of Utilities Project drawing sheet U-1121 (30 of 172) issued 8-6-10 there are 2 large vaults indicated on the SW corner of Minna and 1st Streets. According to the Demolition and Construction Sequence note 6 ¿after electric services are connected and existing electric ductbank is abandoned by PG&E, demolish as indicated existing electrical ductbank manholes, and contents to the limits shown¿ as well as all other utilities that run North and South on 1st Street between Minna and Natoma. Drawing sheet U-2009 (50 of 172) do not indicate these utilities in the Composite Utility Plan and Elevation. Please confirm as per Transbay Transit Center Program Butress/ Shoring/ Excavation drawing D-2230 detail 1 Remove Utilities that the utilities removal will be complete by the TG03 contract start date.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/25/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Exhibit I, BSE Concept Schedule.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0122	TG03 Question 0122 - Logistics	Closed	08/25/2010	09/01/2010	08/25/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bid Manual IV.A.12.a, 27.b, and Site Logistics Exhibit A.

These sections reference material/personnel hoists. Is the TG03 Contractor to provide access for the follow on trade subcontracts? Please provide specifications for size, type, and capacity, otherwise hoists will be designed to minimum requirements for this Trade Subcontractor to complete its work.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/25/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Yes, the Trade Subcontractor shall provide the access. Refer to Exhibit A.

2. Minimum hoist requirement shall be dual hoists, each with 10,000 lb capacity, approximately 5' x 12' inside dimensions and non hydraulic system. This will be included in an upcoming Addendum.

TG03.00-0123	TG03 Question 0123 - Internal Bracing	Closed	08/25/2010	09/01/2010	09/03/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 31 55 00.

In Spec Section 31 55 00 on Page 5 Sub-Section 1.5.B.3. it says that we are to include incidental loads defined by the Contractor (Webcor/Ob??). Can you Please define these loads now during the Bidding Process?

In Spec Section 31 55 00 on Page 6 Sub-Section 1.5.I. it says that we are to coordinate clearances with the Contractor (Webcor/Ob???). Can you Please define the required clearances now during the Bidding Process?

In Spec Section 31 55 00 on page 8 Sub-Section 1.7.D. it says that the Contractor (Webcor/Ob???) shall retain a Special Inspector. Does ¿shall retain¿ mean that the Contractor (Webcor/Ob???) will also pay for the Special Inspector services and their testing(s)?

In Spec Section 31 55 00 on page 8 Sub-Section 1.8.B. there is reference made to Section 33 55 00 1.4.B.7.. This Section 33 55 00 does not exist in the documents, but should be a reference to 31 55 00 1.4.B.7., The 33 should

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Incidental Loads: See response TG0300-0107, posted 8/31/10.

2. Clearance: Refer to response to TG0300-0005 (posted 8/23/10) for comment on clearances.

3. Special Inspector: For Section 31 55 00, Page 8 paragraph 1.7.D - Inspections of temporary works are the responsibility of the Trade Contractor.

4. Reference to Section 33 55 00 paragraph 1.4.B.7: Yes, confirmed that reference to 33 55 00 should be 31 55 00.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

be a 31. Can we get this confirmed and changed?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/25/2010

TG03.00-0124 **TG03 Question 0124 - Warranties** **Closed** **08/25/2010** **09/01/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 01 17 40.

1) Please confirm that the 2 year warranty for subsurface work applies to this Trade Subcontractor package

2) Request a copy of the Contractor's Builder's Risk insurance so we can review terms and conditions.

3) Does the California Public Contract Code 7105 (Acts of God) statute apply in this Trade Subcontract?

4) Will a Contractors Protective Professional Indemnity policy in the amounts specified in Exhibit A section VI be sufficient evidence of coverage to the Owner? 5) Request the general liability requirements be amended to more customary rated A-VII or higher

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/25/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The warranty requirements in Section 01 17 40 are for the project as a whole and are not specific to an individual package. The warranty items for the BSE package, if any, would be limited to those works in place when the contract is complete.

2. The Builder's Risk policy will be made available prior to the start of construction. Refer to Section 00 08 05, paragraph 1.3.A, in Addendum 2 for the Contractor¿s requirements.

3. The Public Contract Code 7105 allows public entities to require Builder's Risk insurance from public works contractors to cover damage to the construction site. The requirements of Section 00 08 05 are for the CM/GC. The insurance requirements for the Trade Subcontractors is defined in the Webcor/Obayashi long form subcontract.

4. Yes, a Contractor's Protective Professional Indemnity Policy (CPPI) is sufficient evidence of coverage.

5. See Addendum 2 for the revision to rating.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0125	TG03 Question 0125 - QBD	Closed	08/25/2010	09/01/2010	08/27/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Project Bidding Manual 37/44.

Please refer to the attached spreadsheet for status of QBD's submitted, corresponding TG Question number and response dates. Currently, there are a number (18) QBD's unanswered that were submitted as of 8/20/10.

Request your review of this list and response to the unanswered QBD's as soon as possible.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/25/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Question numbers missing in the sequence either have been answered or are still under review and will be published in future responses.

TG03.00-0126	TG03 Question 0126 - Shoring Wall	Closed	08/27/2010	09/03/2010	09/02/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-5102.

Section 9/GT-5102 Indicates CLSM Shoring wall placed abutting the existing 301 Mission Wall. 301 Mission Drawings Sheet SH-31 Wall D section indicates a grade beam which may extend south past the wall line. This may interfere with the CLSM Shoring wall installation. Please provide more detail to confirm the coordinates of the existing building at 301 mission and the interface with the new CLSM wall, and confirm that the CLSM wall is sufficient to act as one side of shoring for the existing pile removal program.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
08/26/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 301 Mission drawings show the grade beam on the 301 Mission side of the property line and therefore should not interfere with installation of the Transbay Transit Center CDSM shoring wall. Regarding the adequacy of the existing 301 Mission shoring walls to act as one side of shoring for the existing pile removal program, no information regarding the as-built and as-remaining/buried condition of these walls has been provided. These walls should not be needed to retain earth on the 301 Mission side of the wall since the 301 Mission structure is deeper than the depth of excavation required to remove the timber piles. However, the integrity of the existing shoring wall to support itself is unknown.

TG03.00-0127	TG03 Question 0127 - Temporary Power	Closed	08/27/2010	09/03/2010	08/30/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference page 22 of 44, note #17.

Project Bid Manual Temp Power Page 22 of 44 note #17; calls out for Temp Power per Site Logistics Plan in exhibit A. This is on sheet SL-003 (see attached) Exhibit A - Scope of Package (general work) Page 6 calls for Temp Power skids to be used for dewatering only Base Bid Item Scope Page 11 #18 Dewatering System calls out for power to be provided per attachment #2 which is the Site Logistics Plan in exhibit A drawing SL-003. In this paragraph it also says that there might be power available for our use in this scope of work. Do we need to provide the 4-skid units as shown on attachment #2 Site Logistics Plan? If so please electrical load and voltage requirements. Documents imply there is an existing temp power system for the dewatering? If so please provide information & how it is to be modified for this project.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Exhibit A, Section IV.B.A.17 Temporary Power. Temporary power may be available by the time of the start of dewatering; however, Trade Subcontractor shall design system such that it can operate in the absence of temporary power.

TG03.00-0128 **TG03 Question 0128 - Temporary Lighting** **Closed** **08/27/2010** **09/03/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference page 22 of 44, note #18.

Project Bid Manual Temp Lighting Page 22 of 44 note #18; states that the subcontractor is to provide per code all required temporary lighting.

Do we need to provide pricing for this scope of work? If so, please provide site drawings with the layout of the Temp Site lighting with your requirements for this project.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The cost of temporary lighting shall be included in the base bid. The Trade Subcontractor shall provide all code required temporary lighting. Refer to Exhibit A, Section IV.B.A.18 Temporary Lighting.

TG03.00-0129 **TG03 Question 0129 - Temporary Lighting** **Closed** **08/27/2010** **09/03/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Exhibit A - Scope of Package (General Work page 6 state.

Exhibit A - Scope of Package (general work) Page 6 States 18 Temporary lighting Trade Subcontractor shall be responsible for installing and maintaining temporary lighting at the perimeter traffic/pedestrian barricades, at pedestrian walkways, and as required to provide code-minimum lighting at egress paths, as well as sufficient foot candle lighting levels to safety perform the work at all times, including within the excavation. At a minimum, Trade Subcontractor's lighting plan will include temporary poles at street level. In addition to supporting lighting, temporary poles shall include conduit for security cameras, power at the pole tops for security cameras, and mounting hardware for security cameras. Security cameras will be installed and maintained by others. Temporary lighting work item includes, but is not limited to, installing lighting poles, installing all hardware, switch boxes, breakers, conduits, and pulling strings among temporary power skids/generators/lighting poles and maintenance required for temporary lighting works. Trade Subcontractor's lighting plan will be a submittal requirement for the project.

Do we need to provide pricing for this scope of work? If so, are there drawings showing existing conditions and areas that require Temp Lighting, Street Lighting, and Pedestrian & Traffic Signal, size of Generator required, CCTV, and Electric Security requirements.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. The cost of temporary power and lighting shall be included in the base bid.

2. Yes, refer to the Documents for existing conditions.

TG03.00-0130 **TG03 Question 0130 - Temporary Power** **Closed** **08/27/2010** **09/03/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Base Bid Items Scope #1.

Base Bid Item Scope #1 Mobilization refers you to Section 01 15 05 which calls out in Summary of Work #3, to install temporary construction power and wiring. What temp

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Bidders shall include the cost of temporary power and lighting in the base bid. Refer to the Documents for the temporary power and lighting requirements.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

power is this referring to? (Lay-down area, office trailers, etc.)

Are we to provide pricing for this scope of work? If so, please define the scope of work required in SOW #3.

TG03.00-0131 **TG03 Question 0131 - Temporary Lighting** **Closed** **08/27/2010** **09/03/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Page 14 - Exhibit A #23 5- 23 Bridge at First Street call for street lighting at pedestrian walkways and hanging/un-hanging of existing utilities Page 13 Exhibit #24 Bridge at First Street call for removal street lighting.

Do we need to provide temp lighting, or permanent lighting or both?

Is lighting required on the bridge and on the underside? If so, what are the lighting requirements?

Does the bridge work referenced here pertain to only the portion of the bridge that crosses over 1st street?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Page 14 of Exhibit A refers to Construction Schedule and Milestones. Please clarify question.

TG03.00-0132 **TG03 Question 0132 - Schedule** **Closed** **08/27/2010** **09/03/2010** **08/30/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

CPM: The concept schedule provided in the Bid Documents does not provide sufficient details for Subcontractors to review risk and workforce requirements. We are requesting you to provide electronic Primavera files for the concept schedule, so we can apply sorts, review calendars, work weeks, restrictions, etc. Cost information can be terminated from these file, as we do

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Electronic copy of the BSE Concept Schedule is not available. Please refer to the Div.00 and Div.01 Specifications for requirements of calendars, work weeks, and other restrictions.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

not need that information.

TG03.00-0133 **TG03 Question 0133 - Insurance** **Closed** **08/31/2010** **09/07/2010** **08/31/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 00 08 05 and Exhibit A IV.2.A.

Professional Liability Insurance limits cahnged to $2,000,000 each occurrence in addendum #2 in spec section 00 08 05. Please confirm limits changed in Exhibit A VI.2.A to $2,000,000 as well.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Exhibit A professional liability requirements govern. Refer to response TG0300-0026 for survey liability requirements.

TG03.00-0134 **TG03 Question 0134 - Temporary Bridge** **Closed** **08/31/2010** **09/07/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

In regards to the temporary bridges at 1st, Freemont and Beale St. The contractor is to reference Spec. # 01 15 70-2 and # 01 53 13 -3.6. Section 01 15 70-2 states we are to provide three lanes at 11'. Section 01 53 13-3.6 calls for one 10' pedestrian path and three barriers assumed 1'-6" at the base. These dimensions add up to 47'-6".

Exhibit A Trade Subcontractor Bid Package Drawing SL-001 shows road widths of 36" at these locations.

Please confirm total width to be 47'6"

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The dimensions in the drawing SL001 will be removed in an upcoming addendum.

TG03.00-0135 **TG03 Question 0135 - Temporary Bridge** **Closed** **08/31/2010** **09/07/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Welding qualifications for Temporary Bridges acll for AWS D1.1/D1.1M not AWS D1.5 Please confirm AWS D1.1/D1.1M is applicable to the Temporary Bridges for the durations expected.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AWS D1.1/D1.1M is not applicable to the temporary bridges. The temporary bridges welding qualifications, welding personnel, and welding procedures shall be according to AWS D1.5/D1.5M.

Fyfe, David (URS Corporation)

TG03.00-0136 **TG03 Question 0136 - Hazardous Material** **Closed** **08/31/2010** **09/07/2010** **09/02/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 01 13 50 and 31 00 00.

Specification Section 01 13 50 requires management of existing soils consistent with the Contract Documents. Specification 31 00 00 1.3.J states the Testing Agency is an, "Independent testing and inspection organization complying with ASTM E32 and employed by the TJPA to perform verification and testing¿" Please confirm that TJPA will perform testing and will pay the cost for analytical testing associated with soil characterization of Class I and Class II material if required by the appropriate disposal facilities.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Please note that Section 01 13 50 should be read in tandem with 01 13 50/APA, Site Mitigation Plan.

TG03.00-0137 **TG03 Question 0137 - Unforseen Or Differing Conditions** **Closed** **08/31/2010** **09/07/2010** **09/02/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 00 03 20-1, 1.5A.

"Refer to section 00 08 11 Unforeseen or Differing Conditions, for the differing site conditions." This section is not included Please provide.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The section entitled "Unforseen or Differing Conditions" is found in Section 00 07 00.3.05.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0138	TG03 Question 0138 - Schedule	Closed	08/31/2010	09/07/2010	09/09/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A (NTPs).

There are no set dates for NTP's 6-10 and they are contingent on follow on Trade Subcontractor schedules. All of the excavation is required to be completed in 2014. Are NTP's 6-10 going to be issued in a timely manner to ensure the subcontractor is not waiting idle?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The concept schedule includes the construction plan per the most current construction documents. The concept schedule indicates an approximate start and duration for bracing removal.

Refer to response TG0300-0150.

TG03.00-0139	TG03 Question 0139 - Access Trestle	Closed	09/01/2010	09/08/2010	09/07/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Attachment 3. Please confirm that all horizontal membersof the access trestle must be above the ground floor slab at all locations.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to "Level of the Access Trestle" in Exhibit A, Attachment 3. Refer to Section IV. C., Base Scope Item 21. Access trestle shall not interfere with the permanent structure.

TG03.00-0140	TG03 Question 0140 - Business Tax Registration	Closed	09/01/2010	09/08/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference is made to Part III. Instruction to Bidders, Subparagraph D., Bidding Process and Procedures, Item 6. Statutory Bidding Requirements, Subitem b) Tax Registration that was changed per Addendum No. 2 and states "Bidder shall list its current contractor license number on the Business Tax Registration Declaration (Section 00 04 54) its San Francisco business tax registration certificate number, as well as the current contractor license number and San Francisco business tax registration certificate number for each Subcontractor listed on the Subcontract list". This form was not changed per Addendum No. 2 and does not contain spaces for us to include this information. Is this form going to be revised or are we just to type this information anywhere on the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Current Contractor license and Business Tax Certificate is not required on the Business Tax Registration Declaration. This will be addressed in Addendum 3.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

form?

TG03.00-0141 **TG03 Question 0141 - Bid Forms** **Closed** **09/01/2010** **09/08/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference is made to the various forms that were revised per Addendum No. 2 (i.e. Acknowledgment of Receipt and Review - Project Bidding Manual; Bid Form and Schedule of Bid Prices; Bidding Checklist (BCL); Bid Bond Form; etc). All these form now have "FINAL FOR ADDENDUM" stamped across them. Is it your intent that we submit these forms as is or are you going to be providing us with a separate Bid Package of these forms without this reference stamped across them?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The bidder shall submit the most recent version of the forms, whether the forms are in the original bid documents or an Addendum.

TG03.00-0142 **TG03 Question 0142 - Schedule** **Closed** **09/01/2010** **09/08/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Owner response to question TG0300-0080 is incomplete. The BSE concept schedule does not contain any information concerning the removal of the access trestle nor the temporary streets. Further, the concept schedule provided shows no work activities beyond the construction of the lower concourse walls. Please provide specific information regarding the expected dates for these NTP's so the bidders can estimate the total costs for performing this work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0150.

TG03.00-0143 **TG03 Question 0143 - Long Form Subcontract** **Closed** **09/01/2010** **09/08/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Exhibit B "Long Form Subcontract". Some of the terms and conditions that were provided in the Long Form Subcontract to be utilized as the written agreement between Webcor/Obayashi and the low bid Subcontractor are overly burdensome, unacceptable and potentially not in conformance with statues and regulations. Please confirm that mutually agreeable terms can be negotiated with Obayashi/Webcor prior to the bid date for the Project.

If the terms and conditions for the Subcontract are not negotiable, then we regret to inform you that we will not be able to supply a bid for this Project.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0150.

TG03.00-0144 **TG03 Question 0144 - CDSM** **Closed** **09/01/2010** **09/08/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

The CDSM wall requires no vertical interruptions in its drilling path, the utilities will have to wait until a portion of the CDSM wall is complete. Once a portion of CDSM wall is complete then relocation may happen and the utilities will have to be cored through the CDSM wall. Why is the owner relocating the utilities prior; and just not wait until a portion of CDSM is in before locating?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to the current utility drawings for sequence. Utility relocation is sequenced such that utility service will remain uninterrupted during shoring wall installation. Refer to Addendum 3 for these reference documents.

TG03.00-0145 **TG03 Question 0145 - Schedule** **Closed** **09/01/2010** **09/08/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Zone 2
NTP within 235 cd of NTP 1
Finish within 570 cd

From NTP1 805 cd

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is the intent to have both zones complete at the same time or, as per the schedule in Exhibit A, within 5 calendar days of each other.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Zone 3
NTP within 265 cd of NTP 1
Finish within 535 cd

From NTP1 800 cd

Is requirement to have zone 3 completed prior to zone 2
the owners true intent?

TG03.00-0146 **TG03 Question 0146 - Utilities** **Closed** **09/02/2010** **09/09/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 02 41 01, 3.3.C.1.

1. referenced Specifications states, "...Contractor shall remove and dispose of as the Contractor's property the San Francisco Fire Dept's (SSFD) Auxillary Water Supply System (AWSS) High Pressure Piping in accordance with (AWSS) standard plans and specifications..."

Please identify which lines are the AWSS lines and if any abatement procedures will be required.

2 Please confirm the existing 16" HPG line indicated on Survey drawing sht. 4 of 10 will be relocated and/or abandoned prior to construction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The utility relocation drawings posted on the TJPA ftp site identify the AWSS lines that will be abandoned in the cross streets (First Street and Beale Street). The AWSS pipes come in 12 ft. lengths. The abatement procedure is the contractor's mean and methods, consistent with section 02 41 01.3.3C2 and 3. Refer to note 2, sheet D-2230 regarding abandoned utilities.

TG03.00-0147 **TG03 Question 0147 - Traffic Routing** **Closed** **09/02/2010** **09/09/2010** **09/02/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 01 15 70.

Reference spec sections 2.1 E, 2.5 A, & 2.5 C. These

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 01 15 70.2.1E will be revised in an addendum to delete the words "and to separate traffic lanes and construction areas" at the end of the paragraph.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

sections state that Triton Barriers (or equal) must be used to separate traffic and pedestrians from construction areas, as well as traffic and pedestrians from each other. It also states that K-rail may not be substituted or used in conjunction with them. It is the contractors understanding that this means the entire perimeter of the job site will have to be barricaded off using Triton barriers and not K-rail. Please confirm.

TG03.00-0148 **TG03 Question 0148 - 301 Mission Wall** **Closed** **09/02/2010** **09/09/2010** **09/04/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference 301 Mission St. Drawings, drawing sheet GT-5102.

The Temporary Shoring and Earth Retention Drawings for 301 Mission St. show a grade beam on K line in Section 1 Drwg. SH-32 under the screening wall that is to be relocated by others, it appears that this grade beam carries through the parking structure as shown in Section 2 Drwg. SH-31 and Section 9 Drwg. GT-5102 of these bid documents. Please confirm this grade beam will be demolished prior to CDSM Shoring wall obstruction removal and Geotechnical Monitoring Instrumentation.

In Transbay Demolition Plans, drawing # D1060, and D1076, show the backfill material fill to first floor elevation in the area adjacent to 301 Mission Building. In BSE Plans, drawing # GT5000 shows the backfill material fill to about basement slab elevation. Please confirm which one is correct?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The 301 Mission drawings show the grade beam on the 301 Mission side of the property line and therefore should not interfere with installation of the Transbay Transit Center CDSM shoring wall.

GT-5000 is consistent with D-5103 regarding the amount of crushed concrete backfill at the start of the contract.

TG03.00-0149 **TG03 Question 0149 - Geotechnical Report** **Closed** **09/03/2010** **09/10/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference plan sheet GT-5100, notes 11 and 12.

On sheet D-5100 of the plans notes 11 and 12 reference "draft report results of the prototype test program installation of shoring walls using the cement deep soil mixing method" and "prototype test program and monitoring during construction of drilled shafts." How can I obtain these reports? Are they available online? Please send response to (e-mail address). Thank You.

Submitted by Jesse Johnson
Becho Inc
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Section 00 03 20, Geotechnical Data, for the procedure to obtain the report.

TG03.00-0151 **TG03 Question 0151 - Demolition** **Closed** **09/03/2010** **09/10/2010** **09/09/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Drawings D-2210, D-2211, D-2212 and D-2213 are showing to remove existing pile caps and piles. But there are no details regarding which ones are timber and which ones are concrete. Please clarify.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For information on existing pile caps and piles, refer to Existing Terminal and Ramps original construction drawings: San Francisco-Oakland Bay Bridge Railway Facilities. State of California Department of Public Works, March 1937 and February 1939. See Section 00 03 31, paragraphs 1.2.D.1 and D.8.

Fyfe, David (URS Corporation)

TG03.00-0152 **TG03 Question 0152 - Demolition** **Closed** **09/03/2010** **09/10/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Gerry MacClelland

Co-Author:

REQUEST:

Reference documents for the (E) 80 Natoma Piles and Shoring wall don't match. Document #3 - 80 Natoma Installed Piles and Document #5 - 80 Natoma Foundation and Structure Plans show a difference of over 400 installed piles.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on the information provided by the documents listed in Section 00 03 31, paragraphs 1.2.A.3. & 1.2.A.4, it appears that 1.2.A.2 represents the ¿as-built¿ condition of piling at 80 Natoma, and 1.2.A.4 represents the design drawings prepared by the design engineer. Since the project was terminated

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Please confirm which document shows the correct number of installed piles for the (E) 80 Natoma structure.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

before its completion, it is likely that not all the design requirements are installed.

As noted in paragraph 1.3 of this section, these reference documents are available for information only. The TJPA does not warrant the completeness of the reference documents, nor does it make any representation, either express or implied, that the conditions indicated in the drawings or records are representative of those existing at the Site, or that different conditions may not occur or materials other than or in proportions different from those indicated may not be encountered.

See also response to bidders¿ question TG0300-0101 in response set #3.

TG03.00-0153 **TG03 Question 0153 - Pile Removal** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Drawing GT-2202 says that the existing piles in the buttress area have to be removed and it refers to Drawing GT-5301 for schematic diagrams of pile removal methods.

Please clarify that only the piles in the buttress area have to be removed by one of the methods specified in GT-5301 and all the other piles can be removed during excavation as specified in Stage 4 of Drawing GT-5000.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Section 02 41 19, paragraphs 3.1 B and C. There are locations noted on the drawings where Non-Ground Deformation Control Methods may be used, for example, on sheet GT-2103, along wall segment 35-1.

TG03.00-0154 **TG03 Question 0154 - Buttress** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Installation sequence Notes 6 &7 in Drawing GT-2201 states that Primary Shafts C/4, C/6, C/8 and Secondary Shafts C/5 and C/7 shall be filled with concrete from bottom of shaft to ground surface (elevation +17.00 +/- 2.00) which contradicts with the detail 1 on GT-5201 and Detail 16 on GT-5202. Details on GT-5201 and GT-5202 show that the shafts get filled with concrete to subgrade elevatio(i.e.,bottom of excavation -45.00 +/- 2.00) Please clarify the top elevation of concrete in shafts.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no contradiction. Shafts C/4 thru C/8 are to be filled as noted in notes 6 & 7 on GT-2201; all other shafts are to be filled as noted on GT-5201.

TG03.00-0155 **TG03 Question 0155 - Buttress** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Drawing GT-0000 and GT-2201 say that Secondary Shafts gets filled with Type "A" (6000 psi) concrete and Primary Shafts gets filled with Type "B" (2000 psi) Concrete.

The legend for Primary and Secondary Shafts on GT-5201 contradicts with the above detail.

Please clarify.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GT-0000 and GT-2201 are correct. The legend on GT-5201 will be corrected in an addendum.

TG03.00-0156 **TG03 Question 0156 - Buttress** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Drawing GT-5201 and GT-5202 shows that the shafts gets extended to Working Platform. If so, the shaft above the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As shown on the drawings, Type "A" and "B" concrete are placed to the elevation noted on GT-5201 with the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

subgrade elevation shows it getting filled with 300 PSI CLSM, but per drawing GT-2201 it calls for Type "A" in the primary shafts and Type ¿B¿ in the secondary shafts up to ground surface?

Please clarify.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

exception of Primary Shafts C/4, C/6, and C/8 and Secondary Shafts C/5 and C/7, as noted on GT-2201, "Installation Sequence Notes."

TG03.00-0157 **TG03 Question 0157 - Shoring Wall** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

On dwgs GT-2101, 2102, 2103 calls for sectional details for CDSM wall which gives the details about pre-trenching. As per the Specification 31 56 13, the contractor shall construct a trench along the entire alignment of the shoring wall& cut-off walls. But for walls X2-1, J/12.3 -13, A/19-25, A/25-26, A/26-30, A/30-33.5, A/33.5-35, J/25-27, J/33.5-35, 35-1&cut-off walls do not have any pre-trenching details shown. Can the contractor assume that the walls with no pre-trenching details do not require any pre-trenching?

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pre-trenching is required along the entire alignment of the shoring walls and the cut-off walls. The sections on sheets GT-5103 thru GT-5105 are taken at adjacent properties for the purpose of showing proximity of the work to the adjacent property. Pre-trenching, shoring wall installation, excavation, etc., is required along all shoring wall segments regardless of the presence or absence of a section/detail.

TG03.00-0158 **TG03 Question 0158 - Specific Project Requirements** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Specification section 00 08 13 1.6 B states that the Contractor shall comply with Ordinance #175 91, Article 21 of the SF Municipal Code restricting the use of potable

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The restriction is limited as defined in the code. The contractor is allowed to obtain water from SFPUC for use in the drilled shaft work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

water for soil compaction and dust control activities. Does this specification also apply to water being used for drilled shaft excavation?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

TG03.00-0159 **TG03 Question 0159 - Temporary Bridge** **Closed** **09/03/2010** **09/10/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Schedule A on S1-3201 identifies top of structure elevations. When these elevations are cross referenced against the elevations of the cross streets the temporary bridges that tie into it will be several feet above grade, unless there is a provision for a concrete "leave out" Drawing A 5206 shows First Street Elevation at 14.94. The top of structure at this zone is from 12.79' to 13.47', this allows less than 2' for the temporary bridge installation. Depending on the final Temp. bridge design and clearance necessary to construct box structure below the bridge deck may be as much as 6' above the city street. Is it the owners intent to ramp up on the city street to the temp bridge elevation? If so what is the max grade allowed for the approach ramp?

Also, please comment on the intent for side sloping, access for business, support of fill, etc. This condition applies to Beale street as well.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

S1-3201 shows general top of structural elevations at the Ground Floor Slab. The schedule is not intended to show all top of structual elevations.

Utility corridors are to be provided at the cross streets of Beale, Fremont, and First. Where required, the temporary bridges are provided over the area of the utility corridors, which are lower than the adjacent slabs. See architectural drawings A1-6000, A1-6118, and A1-6231 provided for reference.

Note that drawing A-5206 referred to in the information request was not included in the BSE package.

The temporary bridges will be set to tie into existing street grades without significant changes in elevation. This approach will avoid the need for side sloping, or other grading for access.

TG03.00-0160 **TG03 Question 0160 - Schedule** **Closed** **09/03/2010** **09/10/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Response to TG0300-0080 indicates , "Refer to Exhibit I - BSE Concept Schedule" BSE Concept schedule zones conclude with "Verticl Walls (2nd Lift) to Ground Level" with it's successor being "(Finish) Below Grade Structure Zone 'X'"

Is it the Concept for this activity to include the Top Deck of the Below Grade Structure? Do the removal activities described in NTP #7-10 commence after completion of the Finish Below Grade Structure activities?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG0300-0150.

TG03.00-0161 **TG03 Question 0161 - Water Discharge** **Closed** **09/03/2010** **09/10/2010** **09/07/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 01 14 10/APA-4

Addendum No. 2 states that TJPA will reimburse the Contractor for costs associated with the State Water Resources Control.

Please confirm that the TJPA will reimburse the Contractor for costs associated with the preparation of the Stormwater Pollution Prevention Plan as required by the General Permit for Stormwater Discharges.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 01 14 10/APA is limited to permits responsibility and fees only. The cost of developing plans needed for required permits are the Trade Subcontractor's responsibility.

TG03.00-0162 **TG03 Question 0162 - Site Area** **Closed** **09/03/2010** **09/10/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Spec Section 01 14 19 - Restriction to Use of Site Areas, lists the location of adjacent site areas and when they are available to the Trade/Subcontractor. This section does not address the area labeled in the drawings as the MUNI Hump or the area directly west of Zone 1. Is the trade/subcontractor to assume that both of these areas are not considered adjacent site areas, but areas acquired with the respective zones? Do these areas become available to the Trade/Subcontractor at NTP of Zones 1 and 3?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 01 14 19 identifies staging areas outside the construction zone. The "hump" will be made available to the CM/GC as needed for direct construction activities. Currently, it is available to the demolition contractor until spring 2011. After that it becomes available during shoring wall installation activities. Following, this area will be made available to the CM/GC for other ongoing construction activities until such time as development of this parcel is ready for construction. That date is not currently known, but it is not expected to occur before the late months of 2012. The property west of Zone 1 is considered part of the construction site and is currently available to the demolition contractor. It will become available to the CM/GC in spring 2011.

TG03.00-0163	TG03 Question 0163 - Temporary Bridge	Closed	09/03/2010	09/10/2010	09/08/2010	Potentially ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Attachment 3, Access Trestle Criteria, of Exhibit A includes a section titled, Minimum Radius of Corner, which states, "Additional spaces at all inner corners of the Access Trestle shall be added for helping Truck/trailer/Crane turn." Temporary Bridges, 01 53 13 1.3 A. 5 establishes the gate requirements with, "Gates providing twenty-four feet (24') of clear unobstructed access shall be provided through all barrier systems at the center of the bridge."

Please confirm the intent confirm to add additional space for turning radius to the trestle at the bridges intersections, when the access is restricted by the clear opening of the gates.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/02/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Trade Subcontractor shall configure traffic paths around the gate area considering smooth turn configurations for truck/trailer/crane, including adding turning radius space. Unnecessary turning radius space for the configurations can be avoided.

There is no conflict; 24-ft. (min.) of clear unobstructed access by operation of gates is required by specification.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0164	TG03 Question 0164 - Internal Bracing	Closed	09/07/2010	09/13/2010	09/22/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Information Requested
Reviewing Drawings GT-1110, GT-1111, GT-1112 and GT-5101, and our In-house Design, there seems to be a conflict in the TJPA Design of the CDSM wall. Drawings GT-1111 and GT-1112 note that the Max Cantilever to ground surface is 10' max (install) and 13' max (removal), but with the West, East, and Buttress Earth pressures from GT-1110 and Strut Elevation called out at + Elevation 11, + Elevation 6, and + Elevation 4 and the Top of Pile beams form GT-5101, produce cases where the install Cantilever exceed the 10' Max.

A/1-5 +22.0 -11 = 11' that exceeds 10'
1-1 +24.0-11 = 13' that exceeds 10'
X1-1 +25.0 -11 = 14' that exceeds 10'
X1-2 +24.0 -11 = 13' that exceeds 10'
J/13-19 +18.0 -6 = 12' that exceeds 10'
J/19-25 +17.0 -6 = 11' that exceeds 10'
J/25-27 +15.0 +4 =11' that exceeds 10'

Does the note on Stage 2 on Drawing GT-1111 infer that the Owners Design of the CDSM wall can take the "Over Cantilever" because we can dig to a specific Elevation of +8 west of Grid Line 17 and to Elevation + 7 east of Grid Line 17? Or does the Owners Design need to be Revised to add an additional Strut/Waler Level to the Owners Wall Design? Can we get a clarification on the 10' max shown on Drawing GT-1111 and the west end walls? Can we use 14', 13', 12', 11' cantilever to the first strut level elevation shown at +11, +6, and +4 vs the 10' max shown on GT-1111 Drawings?

Submitted by Charles M. Gardner
Kiewit Infrastructure
09/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The elevation of the top strut shall be no lower than the following elevations (NAVD88): at Case West +11.00 (install) and +8.00 (removal); at Case East +6.00 (install) and +3.00 (removal); at 301 Mission Buttress Case and 301 Mission Podium Case +4.00 (install) and +1.00 (removal). This information will be included in an Addendum.

TG03.00-0165	TG03 Question 0165 - Excavation	Closed	09/07/2010	09/13/2010	09/08/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference Earthwork 31.00.00, 3.19.B.2 which states

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sentence, "Barricades shall be installed at the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

"Protect newly excavated areas from traffic and erosion...Barricades shall be installed at the tops of the sloped embankments to prevent vehicles and storage loads within seven feet of the tops of the slopes."

a. Does this specification apply to the top edge of the vertical face main excavation? (i.e. perimeter shoring wall)

b. If seven foot distance is required (at the top edge of the main excavation), then can it be assumed to start at the inside face of CDSM wall and stop at the outside toe of barrier? If not, then please define start and stop of the seven foot distance.

c. CDSM wall and excavation occurring on Minna and Natoma streets exist in close proximity to numerous private garages, driveways, and pedestrian entryways. With a further 7 ft setback restriction, this will virtually take the remaing portion of Minna and Natoma street, relegating any traffic along these alleys to existing sidewalks. A specific example would be on Natoma between column lines 14 to 17. Is it the Owner's intent to maintain these setbacks and demolish the existing sidewalks and planter areas by pushing vehicular access closer to the buildings?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/03/2010

tops of the sloped embankments to prevent vehicles and storage loads within seven feet of the tops of the slopes" in Section 31 00 00, paragraph 3.19.B.2, will be replaced with, "Protection of sloped faces within the area being excavated is the responsibility of the Contractor." This change will be included in an upcoming addendum.

TG03.00-0166 **TG03 Question 0166 - Geotechnical** **Closed** **09/07/2010** **09/13/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please provide the design Factor of Safety for skin friction values noted on sheet GT¿]1112 or provide a similar chart for east and west cases that show ALLOWABLE SKIN FRICTIONS for embedded columns or pin piles.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The skin friction values shown are those which are mobilized by an infinitely stiff pile after 1/2" vertical displacement. The designer of the internal bracing system shall determine the factor of safety appropriate to their design.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

09/03/2010

TG03.00-0167 **TG03 Question 0167 - Hazardous Material** **Closed** **09/07/2010** **09/13/2010** **09/08/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specifications 00 03 35 and 00 07 00. Research shows that Asbestos is very probable in mortar use before 1975. Abandoned brick sewer lines may have lining and mortar which could contain asbestos. Please confirm any materials found to contain Asbestos in this instance will be handled under section 00 07 00 3.05 of the specifications.

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 00 07 00 article 3.05 is clearly written. Also reference Section 01 13 50.

TG03.00-0168 **TG03 Question 0168 - Demolition** **Closed** **09/07/2010** **09/13/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Specification section 02 41 19 1.4.E requires a submittal of existing timber pile documentation of existing timber piles by, "Survey indicating position and top elevation of existing timber piles and other materials to be demolished and removed."

Could you clarify the intent and purpose of this requirement, and what "other materials" are?

Submitted by Charles M. Gardner
Kiewit Infrastructure West Co.
09/03/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The position and top elevation of the existing timber piles are needed to assist in the monitoring of the ground movements during pile removal. This survey is required only for the piles specified to be removed on sheet GT-2202. The specification will be revised to clarify this in an addendum. The text "and other materials to be demolished and removed" will be deleted in an addendum.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0169	TG03 Question 0169 - Demolition	Closed	09/07/2010	09/13/2010	09/15/2010	Potentially	

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference reference documents 80 Natoma St., Installed Piles.

In the reference document, only a select number of piles show Pile Top and Pile Tip Elevations in Table 1 (these piles are highlighted in yellow on the drawing). For the piles where no information is given, please provide pile lengths, pile top elevations and pile tip elevations.

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Reference documents listed in Section 00 03 31 are provided as the basis for the conditions at the site to be encountered. With regard to the bidder's question to this specific reference (00 03 31, paragraph 1.2.A3, Table 1, prepared by T&R and pile layout/numbering sketch prepared by American Pile Driving), Table 1 lists known existing piles and where entries (e.g., date installed, pile length, approx. pile top and approx. pile tip) are absent, bidders may assume piles have not been driven. Where undocumented obstructions and/or interferences are found, see contract provisions for changed site conditions.

Fyfe, David (URS Corporation)

TG03.00-0170	Can tiebacks be used for temporary bracing at the transverse end walls (Lines 1 a	Closed	09/07/2010	09/13/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Can tiebacks be used for temporary bracing at the transverse end walls (Lines 1 and 35)? If so, please indicate any requirements or limitations associated with their use.

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Use of tiebacks in walls adjacent to grid line 1 and 35 is not acceptable due to the complexity of the site conditions, which include adjacent properties and an existing shoring wall, and the quality of the soils.

TG03.00-0171	TG03 Question 0171 - Internal Bracing	Closed	09/07/2010	09/13/2010	09/17/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

As noted in Question TG0300-0058, preloading the struts will increase the effective stiffness of the bracing system (particularly by pre-compressing the struts).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

We do not believe that preloading increases the effective stiffness of the struts. The struts will expand and contract due to temperature variations and this

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

(1) Can this factor be considered when evaluating the ¿average stiffness tributary to a given strut¿ per the note in the lower right-hand corner of GT-1111?

(2) Can preload values higher than those specified in Tables 1 through 4 on GT-1110 be used to increase the effective stiffness of the bracing system?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

could be interpreted as changing the effective stiffness, but we do not believe it is feasible to control the temperature at the time of installation and pre-loading to account for this when selecting the member sizes.

TG03.00-0172 **TG03 Question 0172 - Schedule** **Closed** **09/07/2010** **09/13/2010** **09/09/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit A, Section V. In reference to the ¿concept schedule¿ (Exhibit I), it is stated that although the schedule activities should not be assumed to be a complete or binding work plan ¿. . . it is mandatory that each Completion Date be met so as not to impact follow-on Trade Subcontractors or the Critical Path of the Project.¿ Are the Excavation Finish Dates for each of the Zones the ¿mandatory¿ Completion Dates referred to above?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, the durations indicated in the milestones for NTP 2-5 are mandatory.

TG03.00-0173 **TG03 Question 0173 - Demolition** **Closed** **09/07/2010** **09/13/2010** **09/27/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

Reference Exhibit A, Section IV.C.14 (p. 10).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Note 10 on D-0001 (and similar notes on others drawing sheets) requires Contractor to provide means

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Exhibit A states: ¿Existing temporary shoring wall installed by Existing Terminal and Ramps Demolition Contractor at the eastside of Fremont Street shall be removed and disposed in accordance with the Contract Documents.¿

However, the Terminal Demolition Plans include notes stating that ¿. . . Contractor to furnish and install shoring and bracing as necessary to ensure no adverse impacts to adjacent roadways and building.¿ These notes seem to apply to the entire perimeter of the existing building and not just to the eastside of Fremont St.

Please clarify if the TG03 Contract includes removal of the previously installed shoring and bracing along the eastside of Fremont Street only, or also around the entire perimeter of the existing terminal structure.

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

for temporary ground support as required and as necessary to protect adjacent ground when excavation demands such protection. One example of this requirement is the pre-trenching activities prior to installing CDSM wall as required per note 11 on GT 2101 (and similar notes on other sheets). The temporary shoring walls installed for excavation by this Work will need to be removed by this trade contract as part of underground structure demolition and clearing per the same note 10 on D-0001.

TG03.00-0174 **TG03 Question 0174 - Shoring Wall** **Closed** **09/07/2010** **09/13/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Will it be permissible to shed bracing loads from the transverse end walls (near Lines 1 and 35) into the longitudinal CDSM walls (Lines A and J)? If this is acceptable, please indicate if there are any limitations or restrictions on the design assumptions regarding the amount of load that can be shed over a given length of wall.

SUGGESTION:

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

ANSWER: **Accept Suggestion:** ☐

Diagonal bracing at the corners of the excavation is acceptable. See Note 11 on GT-1111.

TG03.00-0175 **TG03 Question 0175 - Shoring Wall** **Closed** **09/07/2010** **09/13/2010** **09/17/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

The response to previous question TG0300-0054 states that the rebracing loads can be determined based on the information provided on GT-1110. Please identify the specific information on GT-1110 that is to be used to determine these loads. We note that the computation of these loads will depend upon the assumed degree of CDSM wall fixity at the base slab, the assumed distribution of seismic loads, as well as, other inherent assumptions. The CDSM wall analysis and design computations (which we assume must have included an analysis of the bracing removal/rebracing stages) have not been made available to the bidders so it is not possible to ascertain the basic loading and support conditions assumed by the CDSM wall designer for the bracing removal/rebracing conditions. We recommend that the static and seismic components of the rebracing design loads be provided so that all bidders are designing the rebracing for bracing demands that are consistent with the CDSM wall designer¿s computations.

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Our staged analysis of the build-out case indicates that the total compressive force due to soil pressure does not change from that obtained from our analysis of the excavation case. This is compatible with the need to control ground movements during the build-out stages. The soil loads on the temporary re-bracing struts and the permanent structural elements used for propping the shoring wall can be determined by tributary area using the pressure diagrams on GT-1110.

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TG03.00-0176	**TG03 Question 0176 - Below Grade Structure**	**Closed**	**09/09/2010**	**09/09/2010**	**09/08/2010**	**Potentially**	☐

From: Webcor Construction LP Michael Constable **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Will it be permissible to incorporate additional reinforcing steel in the permanent structure concrete walls so that a portion of the wall can act as a wale to spread loads to the rebracing rakers/struts?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Shoring Contractor may propose a waler design that would allow the concrete wall to act as a waler. Contractor-proposed design shall include calculations and supporting design data. All aspects of the design shall comply with requirements in the Contract Documents and the design intent of the building systems not fully designed at this point.

Note the maximum spacing of rebracing elements is to be modified in Addendum 3.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0177	**TG03 Question 0177 - Internal Bracing**	**Closed**	**09/07/2010**	**09/13/2010**	**09/16/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference drawing sheet GT-2101.

Regarding previous question TG0300-0084, part 1 which was unanswered:
At what stage of excavation in Zone 1 will wall X1-1 be removed?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is anticipated that the shoring line adjustment will occur prior to the start of installation.

TG03.00-0178	**TG03 Question 0178 - Micropile**	**Closed**	**09/07/2010**	**09/13/2010**	**09/08/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference drawing sheet S1-3003.

Detail 1 indicates that the micropile design shall be by the Contractor, or in this case, by the micropile subcontractor.

(1) Is the micropile subcontractor responsible for designing the micropile anchorage in the concrete base slab?

(2) Is the micropile subcontractor responsible for furninshing and installing micropile anchorage reinforcing steel?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

(1) Yes.
(2) Yes.

TG03.00-0179	**TG03 Question 0179 - Shoring Wall**	**Closed**	**09/07/2010**	**09/13/2010**	**09/08/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

CDSM wall layout sheet GT-2101 shows Wall Segment X2-1 on the south side of the building between grid lines

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This will be revised in an addendum.

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11 and 13. The CDSM Shoring Wall Schedule (16/GT-5101) does not list this wall segment. Please clarify.

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

TG03.00-0180 **TG03 Question 0180 - Buy America** **Closed** **09/07/2010** **09/13/2010** **10/21/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference specification 00 08 13/APA, paragraph 17.

Please clarify the following questions regarding the Buy America requirements as they relate to the SBE Trade Subcontract:

(1) Can manufactured steel products such as wide flange sections, pipes, H piles, plate, etc. used in the SBE Trade Subcontract for temporary bracing, trestle and temporary cross street bridge construction be manufactured by foreign sources?

(2) Can the W sections used in CDSM shoring wall be manufactured by foreign sources?

Submitted by Rich Zito
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Temporary construction materials that will be removed from the project, such as steel used in the bracing, trestle and cross street bridge, are not subject to Buy America.

2. Shoring materials that will be abandoned in place are subject to Buy America. However, secondhand steel that the Trade Subcontractor has on hand may be used if it is provided at no cost by the Trade Subcontractor.

TG03.00-0181 **TG03 Question 0181 - Internal Bracing** **Closed** **09/07/2010** **09/13/2010** **09/21/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Sheet GT-1110 shows numerical values for horizontal strut loads. GT-1110 also shows a design profile. Are we to use the numerical values shown or are we to calculate loads

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The "Design Profile" earth pressure was obtained by fitting a trapezoidal diagram to the strut loads obtained by analysis. Therefore, the results obtained using

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based upon the design profile?

Shimmick / Skanska / Traylor JV (SST)
09/07/2010

tributary areas from the "Design Profile" will vary slightly from the strut loads presented in tables 1 thru 4. Tables 1 thru 4 shall be used for strut loads. For seismic increment strut loads, refer to tables 5 thru 8.

TG03.00-0182 **TG03 Question 0182 - Demolition** **Closed** **09/07/2010** **09/13/2010** **09/14/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Demolition Drawing D-2213 is showing ro remove (E) Fremont Street temporary shoring wall and note 9 on the same drawing says that As - Built information for type and location of temporary shoring wall will be available on or about the first quarter of 2011.

Please provide some information (Sheet piles? Dimensions?) regarding this temporary shoring wall for bidding purpose.

Submitted by Aparna Alla
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For bidding purposes, bidder may assume the temporary Fremont St. shoring wall is a conventional interlocking sheet pile shoring system. Bidder may assume a wall length of 195 feet, a retaining height of 20 feet, and an embedment depth of 50 feet for a total driven sheet length of 70 feet.

Fyfe, David (URS Corporation)

TG03.00-0183 **TG03 Question 0183 - Geotechnical** **Closed** **09/08/2010** **09/14/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Please provide the "Geotechnical Recommendation Report" referenced in paragraph 6.1.2.2--Subsurface Conditions of the Final Geo-technical Data Report

Submitted by Greg Overhage
Shimmick / Skanska / Traylor JV (SST)
09/07/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sentence is a typo. There is no report titled "Geotechnical Recommendation Report." The Final Geotechnical Data Report includes a description of stratigraphy and information on the characterization of the major soil strata.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0184	TG03 Question 0184 - Shoring Wall	Closed	09/09/2010	09/15/2010	09/09/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

GT-5102 & GT-5105
Drawings from GT-5102 to 5105 shows CDSM wall sections with pre-trenching details. As per the scale on these drawings, the pre-trench depth varies from 12' to 25'.

Please confirm.

SUGGESTION:

Answered by George Metzger, 9/9/10
Refer to Section 31 56 13, article 3.2 A: "The depth and width of the trench shall be that required to remove the obstructions from the path of the shoring wall."

ANSWER: **Accept Suggestion:** ☐

Answered by George Metzger, 9/9/10
Refer to Section 31 56 13, article 3.2 A: "The depth and width of the trench shall be that required to remove the obstructions from the path of the shoring wall."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0185	TG03 Question 0185 - Hazardous Material	Closed	09/09/2010	09/15/2010	09/14/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

1. As per the Site Mitigation plan by Treadwell & Rollo, the extent of hazardous of material information is available for the proposed project location except in the CDSM wall segment X1-1 & R2-1 areas.

Please provide the related hazardous material information for the above mentioned areas.

SUGGESTION:

Answered by Gerry MacClelland, 9/14/10
At the time the Site Mitigation Plan was drafted there was uncertainty concerning the perimeter of the shoring wall, so a conservative boundary was used which did not cross south of Natoma St. Information on the soil contamination in the area of wall segment X1-1 and R2-1 can be found in the following reference documents:

Soil Investigations of 546 Howard and 75 Natoma, ERM West, January 2009
Site Investigation Report, San Francisco-Oakland Bay Bridge West Approach Project Including Transbay Terminal Loop. California: Professional Service Industries, Inc., 1999. (see pg. 43)
See Section 00 03 35 for references to these documents.

ANSWER: **Accept Suggestion:** ☐

At the time the Site Mitigation Plan was drafted there was uncertainty concerning the perimeter of the shoring wall, so a conservative boundary was used which did not cross south of Natoma St. Information on the soil contamination in the area of wall segment X1-1 and R2-1 can be found in the following reference documents:

Soil Investigations of 546 Howard and 75 Natoma, ERM West, January 2009
Site Investigation Report, San Francisco-Oakland Bay Bridge West Approach Project Including Transbay Terminal Loop. California: Professional Service Industries, Inc., 1999. (see pg. 43)
See Section 00 03 35 for references to these documents.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0186	TG03 Question 0186 - Traffic Routing	Closed	09/09/2010	09/15/2010	09/14/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The traffic lane requirements as per the specification 01 15 70 says that contractor needs to maintain 3 lanes of 11' at all the times on the First Street from Mission to Folsom and also at the intersection of Fremont and Natoma.

With the above restrictions, safe operations for CDSM walls by using big equipment may not be obtained. Is it allowable for contractor to perform the work with half the street closed?

Answered by Gerry MacClelland, 9/14/10
Base your bid on maintaining the requirement of 3 lanes of 11 feet each, per the specification.

Base your bid on maintaining the requirement of 3 lanes of 11 feet each, per the specification.

TG03.00-0187 **TG03 Question 0187 - Shoring Wall Traffic Routing** **Closed** **09/09/2010** **09/15/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Position of CDSM walls with reference to sidewalks is not clear on the provided GT drawings. Please provide the distances between sidewalks and CDSM walls to see the possibility of maintaining traffic lanes as specified in specifications 01 15 70.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by George Metzger, 9/13/10
The GT drawings provide the survey control points to locate the shoring wall. The existing condition site survey drawings that show existing streets and sidewalks are included in the bid documents.

TG03.00-0188 **TG03 Question 0188 - SBE Program** **Closed** **09/09/2010** **09/15/2010** **09/10/2010** **No** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

In specification section 00 08 21 - 1.3.D it states that DBE's currently certified by CUCP, CCSF HRC, & OSOD may participate in the TJPA's SBE Program. Specification section 00 08 21/AT1 states that DBE's currently certified in only CUCP may participate in the TJPA's DBE Availability Advisory Percentage. Please clarify which certification agencies will quality the DBEs & SBEs for the TJPA SBE Program. Also will LBEs certified by CCSF(.) HRC qualify as SBEs under the SBE Program?

SUGGESTION:

Answered by Sara Gigliotti, 9/10/10

As stated in 00 08 21, 1.3.D, DBEs currently certified in the CUCP, as well as SBEs certified by the City and County of San Francisco Human Rights Commission (HRC), and the California Department of General Services Office of Small Business and Disabled Veteran Business Enterprise Services (OSDS) may participate in the TJPA's SBE Program. HRC issues LBE certifications. OSDS issues SBE and DVBE certifications. These count toward participation in the

ANSWER: **Accept Suggestion:** ☐

Answered by Sara Gigliotti, 9/10/10

As stated in 00 08 21, 1.3.D, DBEs currently certified in the CUCP, as well as SBEs certified by the City and County of San Francisco Human Rights Commission (HRC), and the California Department of General Services Office of Small Business and Disabled Veteran Business Enterprise Services (OSDS) may participate in the TJPA's SBE Program. HRC issues LBE certifications. OSDS issues SBE and DVBE certifications. These count toward participation in the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

TJPA's SBE Program.

00 08 21 also states that the Contractor is responsible for reviewing the policies outlined in the TJPA's SBE Program. The TJPA SBE Program is available on the TJPA website: http://www.transbaycenter.org > TJPA > Doing Business with the TJPA > Small Business Enterprise (SBE) Program.

Only DBEs (certified in the CUCP) may participate in the TJPA's DBE Program.

TJPA's SBE Program.

00 08 21 also states that the Contractor is responsible for reviewing the policies outlined in the TJPA's SBE Program. The TJPA SBE Program is available on the TJPA website: http://www.transbaycenter.org > TJPA > Doing Business with the TJPA > Small Business Enterprise (SBE) Program.

Only DBEs (certified in the CUCP) may participate in the TJPA's DBE Program.

TG03.00-0189 **TG03 Question 0189 - Utilities** **Closed** **09/09/2010** **09/15/2010** **09/13/2010** **No** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

May the Transbay Transit Center Program Relocation of Utilities Project drawings be included in this bid package as reference drawings?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by: WO DocControl, 9/13/10
Refer to response TG0300-0144.

TG03.00-0190 **TG03 Question 0190 - Geotechnical** **Closed** **09/09/2010** **09/15/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

GT-1110
Drawing (Drawing) GT-1110 contains 4 charts describing heave. What are these charts for? Do these charts detail the max heave we should expect? Was heave included in the owners design?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by George Metzger, 9/13/10

These diagrams indicate the predicted heave at the bottom of the excavation due to the unloading of the soil caused by the excavation. It is the responsibility of the Contractor to evaluate the loads, including imposed displacements, on the internal bracing system as part of their design of the internal bracing system.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0191	TG03 Question 0191 - Shoring Wall	Closed	09/09/2010	09/15/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference specification 31 56 13.

Can the Trade Subcontractor rely on the CDSM wall being impervious? If the CDSM wall leaks will it be the basis for a change order?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by George Metzger, 9/13/10

The Contractor is responsible for installing a wall which satisfies the requirements in the contract documents. The Contractor is responsible for repairing leaks. The work to repair the leak will not be reimbursed as a change order.

TG03.00-0192	TG03 Question 0192 - Buttress	Closed	09/09/2010	09/15/2010	09/14/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Reference drawing sheet GT-5202.

This plan calls out "(4) 4 in. diameter PVC or steel pipe sleeves...tied to the reinforcement steel cage" We assume that these are the access tubes for the required Cross Hole Sonic Logging Test. Usual access tube size is only 2 inches in diameter. Please confirm that you specifically require 4 in. or that regular 2 inches in diameter access tubes (PVC or steel) can be used instead.

Question B: Can reinforcement spiral be replaced by regular ring hoops?

SUGGESTION:

Answered by: George Metzger, 9/14/10

The four 4-inch-diameter pipes shown on the plans are required.

Regarding Question B, #7 circular hoops at 6" o.c. with couplers or welded splices are acceptable in lieu of spiral reinforcement.

ANSWER: **Accept Suggestion:** ☐

Answered by: George Metzger, 9/14/10

The four 4-inch-diameter pipes shown on the plans are required.

Regarding Question B, #7 circular hoops at 6" o.c. with couplers or welded splices are acceptable in lieu of spiral reinforcement.

TG03.00-0193	TG03 Question 0193 - Site Maintenance	Closed	09/13/2010	09/19/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Reference Project Bidding Manual, page 34 paragraph 6.

The Project Bidding Manual states: "Trade Subcontractor shall include in the Bid two man-hours of cleanup for every forty man-hours of work. This Labor, provided by Trade

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/13/10

This requirement applies to the entire scope of work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Subcontractor, will be used as part of a Composite Project efforts to maintain a clean work area. The actual clean-up hours used versus the number of hours owed (tracked through certified payroll) will be reconciled. Contractor has option to deduct this from Trade Subcontractor's scope of Work incrementally or in its entirety and execute the Composite Project clean-up."

Is this necessary for the entire TG03 package or just the portion that we are coordinating trestle removal? And/or re-shoring?

TG03.00-0194 **TG03 Question 0194 - Temporary Power** **Closed** **09/13/2010** **09/19/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Reference drawing sheet SL-003

Please confirm PG&E will provide the transformers for the skids as shown on the Site Logistics Temporary Power Plan SL-003.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

W/O Doc Control, 9/13/10

Confirmed.

TG03.00-0195 **TG03 Question 0195 - Schedule** **Closed** **09/13/2010** **09/19/2010** **09/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Exhibit A.V Construction Schedule and Milestones:

1) NTP #03, #04, and #05 are indicated to be issued , "no later than" 175, 235, and 265 calander days (respectively) for each of Zones 1,2, and 3. What is the "no earlier than" dates for these milestones? Theoretically TJPA could issue NTP #03-#05 immediately after NTP#02 which would stack the work. Request earliest start date to realistically plan our work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/15/10

1) There are no early start dates for NTP #03, #04, #05.

2) Refer to response TG0300-0150.

3) Refer to response TG0300-0150.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

2) What are the durations of Milestones NTP#06 through #7?

3) How are Milestones NTP #06 through #10 tied to the critical path?

TG03.00-0196 **TG03 Question 0196 - Access Trestle** **Closed** **09/13/2010** **09/19/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

The Scope of Work for the Removal and Disposal of Access Trestle as described in Exhibit A IV.C.22 indicates, "The Structural Steel Trade Subcontractor shall remove/dispose the Access Trestle above the Lower Concourse slab,¿"

Please confirm that the Access Trestle remains the property of the BSE Trade Subcontractor, and will be disposed at a location (within the Bay Area) of their choice.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/13/10

The Structural Steel Trade Subcontractor shall remove and dispose of the Access Trestle above the Lower Concourse slab.

TG03.00-0197 **TG03 Question 0197 - Geotechnical Report** **Closed** **09/13/2010** **09/19/2010** **09/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

The Final Geotechnical Data Report prepared by Arup North America Ltd. Article 6.1.2.2 indicates,"A more detailed description of stratigraphy and information on the characterization of the majormajor soil strata are presented in the Geotechnical Recommendations report."

Is this report available? If so, how may we access this?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by George Metzger, 9/16/10

Refer to response TG0300-0183.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG03.00-0198	TG03 Question 0198 - Site Area	Closed	09/13/2010	09/19/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Reference Exhibit A drawings SL-001 & SL-002.

Dwg. SL-001 shows the area bounded by First, Fremont, Minna and Mission Sts. as an "Emergency Gathering Point" Dwg. SL-002 shows outbound trucks exiting this area. The "Staging Parcels" sketch in Section 01 14 19 does not show this area. Is this area available for staging/laydown use by the SBE Subcontractor? If so, are there any restrictions on its use?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/13/10

Refer to response TG0300-0162.

TG03.00-0199	TG03 Question 0199 - Retention	Closed	09/13/2010	09/19/2010	09/14/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference Answers to Pre-Bid Meeting Questions.

The answer to Question 13 says that retention is withheld for the duration of each subcontractor's scope of work rather than the entire project. Most of the SBE Subcontractor's scope of work will be complete with the placing of the rat slabs. However, the contract will continue until the SBE Subcontractor's responsibility for shoring/bracing removal and trestle/bridge removal is complete. The schedule for this work is contingent on other Trade Subcontractors and the completion date for the entire scope of the SBE Trade Subcontract Package is unknown. Will Webcor/Obayashi release retention attributable to all work completed up until the placing of the rat slabs when the placing of the rat slabs is complete?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by Gerry MacClelland, 9/14/10

Retention to the CM/GC shall be reduced as described in 00 70 00.9.04. Section 00 05 20.5.04D states "the CM/GC must proportionately reduce retainage for its Trade Subcontractors." The amount of retention released upon placement of the rat slab will be based on the amount to the Trade Contractor's contract billed at that time.

TG03.00-0200	TG03 Question 0200 - Temporary Lighting	Closed	09/13/2010	09/19/2010	09/13/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Exhibit A, Section IV.B.A.18, "Temporary Lighting"

Is the SBE Trade Subcontractor responsible for maintaining temporary lighting until the rat slabs are placed or until the end of the SBE Trade Subcontract?

Answered by W/O Doc Control, 9/13/10

The BSE Trade Subcontractor's responsibility for maintaining temporary lighting will end at the acceptance of the rat slab.

TG03.00-0201 **TG03 Question 0201 - Tax Certificate** **Closed** **09/13/2010** **09/19/2010** **09/16/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

Reference is made to Part V, Webcor/Obayashi Bidding Forms, Item A. Bidding Check List, Subitem 3. Current Business Tax Registration Certificate. In Addendum 2 you specifically deleted the requirement for us to submit our "Current San Francisco Business License Certificate". You also changed "Current Business Tax Certificate" to "Current Business Tax Registration Certificate". We have various city Business Tax Registration Certificates. Is it your intent for us to only submit our current Business Tax Registration Certificate for "San Francisco".

SUGGESTION:

Answered by Sara Gigliotti, 9/16/10

Per project bidding manual section III.D.6.b, the requirement is for a San Francisco Business Tax Registration No.

ANSWER: **Accept Suggestion:** ☐

Answered by Sara Gigliotti, 9/16/10

Per project bidding manual section III.D.6.b, the requirement is for a San Francisco Business Tax Registration No.

TG03.00-0202 **TG03 Question 0202 - Bid Due Date** **Closed** **09/13/2010** **09/19/2010** **09/13/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Our QBD sent on 9/02/10 expressed our serious concern with the SBE Trade Package schedule, liquidated damages and other contract terms. We requested that Webcor/Obayashi meet with the SBE Trade Package bidders, as soon as possible, in order to clarify and resolve the major issues of concern. We also requested that the bid due date be postponed by 6 weeks.

We have not yet received a response to our 9/02/10 QBD.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/13/10

Refer to response TG0300-0150.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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We cannot continue to expend resources on this bid without Webcor/Obayashi acknowledging our concerns and committing to act timely to help resolve them.

We ask that Webcor/Obayashi provide us with a response to our 9/02/10 QBD by Friday 9/17/10, otherwise we will have to suspend our estimating effort on Bid Package TG03.

TG03.00-0203 **TG03 Question 0203 - Regulatory Requirements** **Closed** **09/15/2010** **09/21/2010** **09/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

1. Reference section 1 of the Long Form Subcontract (last sub-paragraph); also reference paragraph 2.05 of section 00 05 20 of the Agreement and section 01 14 10 Regulatory Requirements: which require compliance with applicable federal laws and guidelines. Several other specifications (particularly, those relating to health and safety) specifically list specific provisions of the Code of Federal Regulations that the Contractor (and therefore, where relevant, the Trade Subcontractor) must comply with. Provide a list of all applicable federal laws and guidelines (other than those specific provisions of the Code of Federal Regulations that are already included in the General Conditions and other bid documents) that the Trade Subcontractor must comply with on this project. In particular, provide a list of all Federal Acquisition Regulations that apply to Trade Subcontractor's obligations on this project.

SUGGESTION:

Answered by W/O Doc Control, 9/15/10

Those documents are available in the public domain. The project is not subject to the Federal Acquisition Regulations.

ANSWER: **Accept Suggestion:** ☐

Answered by W/O Doc Control, 9/15/10

Those documents are available in the public domain. The project is not subject to the Federal Acquisition Regulations.

TG03.00-0204 **TG03 Question 0204 - Payment** **Closed** **09/15/2010** **09/21/2010** **09/15/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
	Reference 4.1 of the Long Form Subcontract: The second paragraph of this provision states that the CM/GC has no obligation to pay the subcontractor until TJPA approves the CM/GC's application for payment and TJPA actually pays the CM/GC. We request that you correct this provision to comply with the California public policy against pay-if-paid provisions.						

Refer to response TG0300-0150.

TG04.5.1-0001 **TG0451 Question 0001 - SBE Program** **Closed** **08/18/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference RFQ, p6

Is this project only open to SBA's for bidding? Is this set aside for only SBA bidders?

Submitted by Heather Kay
KJ Woods Construction Inc.
08/16/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Non-SBE contractors are excluded from bidding this scope of work or performing work required for this trade package 100% SBE participation is required per section IV.C of the bidding manual.

TG04.5.1-0002 **TG0451 Question 0002 - SBE Program** **Closed** **08/18/2010** **08/25/2010** **08/23/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

W.A. Rasic is not an SBE. However, we fully intend to conduct a comprehensive GFE to increase overall SBE participation (1st, 2nd tier subcontractors, vendors, etc.) Can W.A. Rasic bid on this project direct to the J.V.?

Submitted by John Solis
W.A. Rasic Construction
08/16/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Non-SBE contractors are excluded from bidding this scope of work or performing work required for this trade package 100% SBE participation is required per section IV.C of the bidding manual.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG04.5.1-0003	TG0451 Question 0003 - SBE Program	Closed	08/19/2010	08/26/2010	08/23/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification section IV, paragraph #1

We are not a SBE or DBE are we excluded from bidding on this project TG04.5.1.

Submitted by Tom Cornett
Underground Construction Co., Inc.
08/16/2010

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Non-SBE contractors are excluded from bidding this scope of work or performing work required for this trade package 100% SBE participation is required per section IV.C of the bidding manual.

TG04.5.1-0004	TG0451 Question 0004 - Liquidated Damages	Closed	08/31/2010	09/07/2010	09/08/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 00 05 20-11, 4.02.

This section requires $50,000 liquidated damages per day if project is not substantially complete more than 90 days. This is for the entire project and not TG04.5.1. Please Clarify. Page 11 of Bid manual and forms specifices 4 Milestones without and LD's.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Subcontractor is responsible for any damages resulting from Subcontractor delays as set forth in section 7 of the long form subcontract.

TG04.5.1-0005	TG0451 Question 0005 - Project Staffing Requirements	Closed	08/31/2010	09/07/2010	09/01/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Exhibit H Safety, page 7.

If we have 61 employees work on site, we need to have 2 full time designated safety persons (DSP) on site. Is this correct? Is this in addition to the requirements of 00 70 00-68 paragraph 12.01.B?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Exhibit I (safety manual) provides direction on this matter on page 7 - section titled ¿ Project Staffing Requirements.¿ Section 00 07 00 12.01.B does not apply to the Trade Subcontractor for this bid package only.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG04.5.1-0006	TG0451 Question 0006 - Bid Bond	Closed	08/31/2010	09/07/2010	09/03/2010	Potentially	

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference Bidding Manual, page 12 paragraph 4.C., document 00 04 30-1.

Project Bidding manual page 12 of 44 requires bid security made to Webcor/Obayashi JV. Document 00 04 30 Appears to be between TJPA and JV. Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See Addendum 1 for correct Bid Bond Form. Section 00 04 30 is not for Trade Subcontractor.

TG04.5.1-0007	TG0451 Question 0007 - BIM & CPM	Closed	08/31/2010	09/07/2010	09/01/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specificatoin 01 13 10-2, paragraph 13.A

Contract Requires premavera P6 or compatible format. Is Microsoft Project Acceptable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No - Microsoft Project is not compatible with P6.

TG04.5.1-0008	TG0451 Question 0008 - Length Of Warranty	Closed	08/31/2010	09/07/2010	09/08/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference Exhibit "B" Warranty, 2nd paragraph.

Does warranty period extend to after completion of the entire project or only after TG04.5.1 is completed? The warranty form says indicates after "Filing Notice of Completion on all improvements". See attached which can be more than 4 years.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Section 01 17 00.1.3C. Since it is the intention to put these relocated utilities into service once complete, this paragraph establishes the basis for an early Substantial Completion. Also see Section 00 07 00.3.19C. The period for the warranty is generally defined in Section 01 17 40 as well as in individual specification sections, as stated in 01 17 40.1.2B.

TG04.5.1-0009	TG0451 Question 0009 - Length Of Warranty	Closed	08/31/2010	09/07/2010	09/08/2010	Potentially	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*

REQUEST:

Reference specification 01 17 40-2, paragraph 1.5.A.

Exhibit "B" is blank for period of warranty. 01-17-40-2 requires 2 years after substantial completion of TG04.5.1. Draft Subcontract agreement seams to indicate warranty after completion of the entire project. Please Clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See response to TGO4.5.1-0008.

TG04.5.1-0010 **TG0451 Question 0010 - Maintenance Bond** **Closed** **08/31/2010** **09/07/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Gerry MacClelland

Co-Author:

REQUEST:

Reference specification 00 08 13/APA, page 15, paragraph 6.B.

Is Maintenance Bond Required?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please refer to Section 00 07 00.10.02B, which describes the TJPA's requrements for a Performance Bond, including corrective Work required during the correction period.

TG04.5.1-0011 **TG0451 Question 0011 - Insurance Requirements** **Closed** **08/31/2010** **09/07/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 00 08 05, paragraph 1.2.

Please confirm that $25,000,000 limit on GL is not for TG04.5.1 contract. This question was reponded to during pre-qualificiation process (Question #1).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See section IV.I of the project bidding manual as clarified in section IV.A of exhibit A.

TG04.5.1-0012 **TG0451 Question 0012 - Mobilizations** **Closed** **09/03/2010** **09/10/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference specification 01 15 05 & Bid Form Exhibit A.

This section is about mobilization cost and how it is release, however there is no mobilization line item on bid form (exhibit A). Should bid form be revised to included mobilization?

Bid form modified per Addendum 2.

TG04.5.1-0013 **TG0451 Question 0013 - Personnel Requirements** **Closed** **09/03/2010** **09/10/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 14 00, paragraph 1.8.B.

This section requires a full time graduate licensed engineer or architect to be on site as CQC manager. Is this position filled with CMGC or Trade Contractor for TG04.5.1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Contractor's Quality Control (CQC) Manager, as referenced in Section 00 14 00, Quality Control, paragraph 1.8.B, will be provided by the CM/GC. Trade Subcontractor is responsible for providing QC personnel as required by Section 01 14 00, Quality Control, paragraph 1.8.C. Qualifications for this personnel include a minimum of 10 years of relevant construction experience, specific to the Trade Subcontractor's scope of work, of which 5 years must be in quality control for public works projects.

TG04.5.1-0014 **TG0451 Question 0014 - Fall Protection** **Closed** **09/03/2010** **09/10/2010** **09/03/2010** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference specification 01 15 45-5, paragraph 1.6.C.

Fall protection is required for all trenches 5 feet or deeper. Does this requirement include lifeline harness, lanyard, tie down, etc>?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to exhibit H (Webcor/Obayashi Site Specific Safety Program - Revision 0, dated 7-30-2010), Code of Safe Conduct and Work Practices/Excavation (page 15).

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0001	Site Survey	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Do we provide all survey for our work?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Yes.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0002	SBE Requirements	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:
This project is indicated as to be 100% SBE. Please confirm that this means that all of our subcontractors (and sub tier subcontractors if any) and truckers must therefore be SBE companies. Please also confirm that not all suppliers must be SBE. It will be impossible to obtain quotations for asphalt, VCP, aggregate import materials etc. from SBE companies.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
All subcontractors, at any tier, including truckers, must be SBEs. Good faith efforts must be made to purchase materials and supplies from SBE manufacturers or dealers. If materials or supplies are purchased from an SBE manufacturer, 100 percent of the cost counts as SBE participation. If materials or supplies are purchased from an SBE dealer, count 60 percent of the cost of materials and supplies toward SBE participation.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0003	Lead in AWSS Pipes	Closed	11/02/2010	11/16/2010	11/03/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Are AWSS pipes to be demolished? If so, how is the hazardous lead in the joints to be handled?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
VOID

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0004	Permit Reimbursables	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Will we be reimbursed for all excavation, street space, meter, and other permits?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
See Section 01 14 10/APA for a matrix of permit responsbility.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0005	Phase II Drawings	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Do we include anything indicated in the Phase II drawings?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
No.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0006	OCIP Requirements	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:
Is there (or will there be) an OCIP on this project? If so, what insurances will this OCIP include?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
There is no current, or planned OCIP for this project.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0007	Bid Form Clarification	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
The bid form is far too complex. We can possibly understand the need for the data indicated by the bid form from the subcontractor awarded the project, but we can see no need for each and every bidder to fill out every space in a ten page bid form. In addition the bid form requires us to fill in the quantities. As every subcontractor will have different quantities, this seems somewhat odd. A typical SF PUC style bid form, with quantities provided, would result in bids that could be confidently compared with each other- ¿Apples to Apples¿, not¿ Oranges to Apples¿. We request that such a bid form be provided. If the bid form is not simplified greatly, we will not be able to bid this project, since it will take more time to complete the form than actually estimate the project.

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
See revised bid form in Addendum 3.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0008	**Bid Date Extension**	**Closed**	**11/02/2010**	**11/16/2010**	**11/02/2010**	**Potentially**	

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:
Can the bid date please be delayed?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
The bid opening date will proceed as currently scheduled.

TG043-0009	**Exhibit I Schedule and Exhibit A.V**	**Closed**	**11/02/2010**	**11/16/2010**	**11/04/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Exhibit I, Schedule, appears to show the physical work occurring between 1/27/11 and 3/31/11, approximately 68 calendar days (CD). This is approximately 48 working days. In this amount of time we are to install the sewer, install the water, get SFWD to do the tie ins (which often takes 2 weeks) and then do all the demolition and restoration. Please confirm that this is your intent. Also note that Exhibit A.V appears to require (under milestones) that the water work be completed within 80 CD of NTP-thus it seems that the water will have to be completed prior to the sewer. Please confirm this is your intent.

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
VOID

TG043-0010	**Bid Package Drawing Clarification**	**Closed**	**11/02/2010**	**11/16/2010**	**11/02/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Exhibit A.IV, Clarification of Bid Package. It states that ¿The ¿issued for construction¿ drawings and the Field Order revisions¿ are for construction of Bid Package TG04.5.1 ONLY¿. However the Delta 1- Field Order-revisions state that the ¿revisions (are) for TG04.3 and TG 04.4. So if they are for construction of Bid Package TG04.5.1 ONLY, why are they ¿revisions for TG04.3 and TG04.4¿? Are you trying to say-¿Use all the drawings as provided, and then when we give you a contract we will reissue the drawings, without changes, other than stating

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
The list of drawings to be used in this bid package is found in section 00 01 15.1 of the specifications. Use all of the drawings provided. Upon completion of this bid process, a ¿for construction¿ conformed set of these documents for this trade package will be issued at a later date.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

that they are now issued for construction¿? Please clarify exactly what you mean.

W/O to provide answer.

TG043-0011 **Investigative Trench Drawing** **Closed** **11/02/2010** **11/16/2010** **11/02/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Exhibit A.IV (page 9), Number 11 states to include two investigation trenches as shown on sheets U-1007 & U-1008 dated 8-27-10. This is not the date of the drawings provided. Please clarify.

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Correction: Correct drawing is 9-29-10 "For Construction Drawings."

TG043-0012 **Demolition of Existing Electrical, Gas and Telecom** **Closed** **11/02/2010** **11/16/2010** **11/02/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Sheet U1110 and all the other demo sheets. On sheet U1110 note 5 does not specifically state that the gas is to be demolished by PG&E, note 7 does not say duct bank to be removed by AT&T (other notes are similar), but the notes also do not specifically state that ¿Trade contractor is to demolish¿ or something similar. Exhibit A.IV.D.2 (page 7), third bullet, states: ¿Unless noted otherwise on the drawings, Electrical, Gas & Telecommunication lines will be abandon and all feeders removed by the respective utility owners prior to demolition by this contract.¿ Thus there is an ambiguity. Are we, or are we not to include demolition of the Electrical, Gas & Telecommunication lines? In either case, who removes the boxes, vaults etc.? Please clarify. Exactly what is required at all locations on the plans?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demo as shown on the drawings.
Note 5 says ¿"DEMOLISH AS INDICATED EXISTING HP GAS"
Note 7 says ¿"DEMOLISH AS INDICATED EXISTING TELECOMMUNICATIONS DUCTBANKS/ MANHOLES"

In regard to Exhibit A.IV.D.2, demolish as shown in the drawings.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0013	Demolition of Utilities	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Referenced: Sheet U1110

Are the utilities to the east of the wall, (and on U1111 to the west of the wall) to be demolished by others? Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0014	Temporary Tie In	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Who is to perform Exhibit A.IV.D.4 (page 8), 4th bullet and any other, temporary tie in? Please provide drawing showing exactly what is required for the temporary tie in(s). Include line, grade, size etc.

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0015	Tie In Sequence	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Exhibit A.IV.D.4 (Page 8), 7th bullet. This states that "final tie into buildings will be performanced after complete commissioning of the water systems at 1st, Howard, & Natoma Streets east of First Street. As this work will not be under our control, how can we be sure we can complete this work in the time allowed for in bid Exhibit A? Please discuss and clarify.

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

If a coordinated commissioning of the water system falls outside of the prescribed duration required for this scope of work, a modification to the required schedule dates will be made as is appropriate.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0016	Liquidated Damages	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:
Are there liquidated damages associated with this subcontract?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Liquidated damages will be as shown in Section 7 of the long form subcontract as issued in Addendum No. 2.

TG043-0017 **Open Trenches** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Exhibit A.IV.D.11 (page 9) discusses the two investigation trenches to be excavated (and backfilled) in this scope of work. For these trenches, do we open up end to end and plate? If so, how long will they be kept open, who will move and replace the plates etc.? Or, can we trench and backfill concurrently, with representatives observing and taking requested measurements, thus limiting the amount of open trench?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
VOID

TG043-0018 **Mark Up Clarification** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 000700.6.06.C.2 states that markup on labor is direct cost plus Caltrans surcharge plus 15%, or is it direct cost including bonds and insurance plus 15%? As the current Caltrans surcharge is approximately 11% and our liability insurance and WC insurance total 16.21% and adding the approximately 6.20% FICA, 1.45% medicare, 1.5% SF payroll tax, 7.1% unemployment & training taxes equals approximately 32.5% which exceeds the sum of the 11% surcharge and 15% markup, this is a very important point. As currently written, we would do any extra work at a loss. Note that Caltrans uses the surcharge plus 33% for labor, which allows a profit. Please explain why we should bid a project that guarantees that all extra work would be performed at a loss, or change or clarify the specification.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
This is to confirm that 00 07 00 ¿ 6.06.C.2 allows, for Work performed by a Subcontractor, a markup that equals a maximum of 15% of its direct costs, as defined in 6.06.A., including Subcontractor bonds and insurance.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0019	Testing Payment Responsibilities	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:
Specs. 000700.8.02. Do we have to pay for any testing such as compaction testing, concrete testing, water quality testing, soils analytical etc.?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Testing by others. Retesting due to failure of Trade Subcontractor will be borne by Trade Subcontractor.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0020	Utility Crossing Rate Schedule	Closed	11/02/2010	11/16/2010	11/03/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:
Specs . 000810/APB contains Cost of Utility Crossing Schedules dated January 2004. These are obviously not the current rates. Will we be paid for support and work around of non-governmental and SFWD facilities? If so, will the rates be the rates in effect when the work will be done (2011) or not?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Contractor should use current published Costs of Utility Crossing Schedules at the time of construction.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0021	Fire Hydrant Use	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 000813.1.6.

Will we be allowed to use hydrant water?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Comply with specifications.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0022	Excavation - Public Notice	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 000813.1.8.B.

Who does the excavation permit public notifications?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
TJPA representative will perform outreach based on timely notification by contractor.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0023	Waste Management Plan	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Specs. 000815.

Is Webcor/Obayashi¿s Solid Waste Management plan available? What do we need to do to comply with your plan?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No - not available. Trade Subcontractor is to plan per City of San Francisco requirements.

TG043-0024	Unit Prices for Class 1&2 Disposal	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Specs. 011020.

Do you already have unit prices for Class 1 & 2 disposal? Do we have to match these?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unit pricing to be established by Trade Subcontractor as part of bid.

TG043-0025	Groundwater Discharge	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

For groundwater discharge does the allowance cover all our costs including fees, testing and analysis, metering etc.?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There is no discharge allowance for the utility relocation. Dewatering and associated costs for the utility relocation project are borne by the Trade Subcontractor.

TG043-0026	Class 1 - Contaminated Soil	Closed	11/02/2010	11/16/2010	11/03/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specs. 011020.

What is the definition of Class 1 Contaminated soil? Is it Federal Class 1 RCRA or California Class 1 Non-RCRA or what exactly?

The TJPA environmental consultant will determine what is Class I RCRA and Non-RCRA hazardous waste based on federal and state regulations.

TG043-0027 **Class 2 - Contaminated Soil** **Closed** **11/02/2010** **11/16/2010** **11/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:

Specs. 011020.

What is the exact definition of Class 2 Contaminated soil?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Class II waste is material not classified as Class I RCRA/Non-RCRA but that still contains contamination that prevents it from being disposed of as unrestricted waste. This is determined on a case-by-case basis by landfill operators. The TJPA environmental consultant will assist in the identification of Class II hazardous waste.

TG043-0028 **HASP** **Closed** **11/02/2010** **11/16/2010** **11/02/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

SMP plan page 8.

Is your HASP available?

W/O to provide answer.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The HASP included in Exhibit H of the Long Form Subcontract.

TG043-0029 **Traffic Control Requirements** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specs. 011570.1.2.D requires that the contractor or subcontractor to have a C-31 license to do the traffic control. We have an A license. Does this mean we cannot do our own traffic control, but must instead hire a subcontractor? Or, are you providing traffic control including plans, signs etc.? If we are allowed to provide our own traffic control (or if we must hire a subcontractor) does the three man traffic control need to be dedicated solely to performing traffic control work?

Traffic control to be by trade subcontractor. Traffic control to be as required by specifications.

TG043-0030 **Changeable Message Sign Requirements** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570.2.4.A.

Do we need to include changeable message signs?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Yes.

TG043-0031 **K-rail requirements** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570.2.5.

Do we need to provide K rail?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Yes, (Section 01 15 70.2.6 is the correct reference).

TG043-0032 **Temp. Tape and Markers** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570.2.7.

Do we need to provide temporary tape and markers?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Yes.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0033	Traffic Loop Repair	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570.2.8.

Do we need to provide traffic loop repair?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Yes.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0034	Traffic Lane Requirements	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570. Traffic Lane requirements.

Does Natoma need a lane open, 1 at 11¿ westbound and if so where? It is difficult to understand what is required where, perhaps due to the line spacing of the table. And, how are we to keep an 11¿ lane open on a 22¿ wide street and still perform the work? Please allow closure of Natoma with local traffic access.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Contractor is to follow the Traffic Lane Requirements in the specifications. If the number of lanes and/or lane widths for through traffic cannot be achieved, contractor shall submit for a Special Traffic Permit.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0035	Specialty Traffic Permits	Closed	11/02/2010	11/16/2010	11/04/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
If special traffic permits are required, are the costs reimbursable?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
See Section 01 14 10/APA.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0036	Truck Routes	Closed	11/02/2010	11/16/2010	11/02/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Specs. 011570.3.23.

Are there specific approved truck routes? If so, please provide.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
No.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

W/O to provide answer.

TG043-0037 **Trench Plate installation method** **Closed** **11/02/2010** **11/16/2010** **11/02/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Co-Author:

REQUEST:

Specs. 013565.1.5.B.

This section requires that plates be flush with street or sidewalk. Does this mean all plates must be in cut-in depressions in the street, and not placed on the street with cutback ramps as is normal procedure in SF? Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In accordance with the specifications, contractor shall install plates or decking flush with the existing street or sidewalk.

TG043-0038 **Depth of Bedding above Pipe** **Closed** **11/02/2010** **11/16/2010** **11/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 312310.1.8.A.

This section states "pipe zone shall include...from bottom of pipe...to a horizontal level above the top, as specified below." Could not find anywhere "below" where information regarding the depth of the bedding above the top of the pipe was provided. Please provide.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Below" is a reference to next numbered section: Section 31 23 10.1.9, Bedding.

TG043-0039 **Pavement Mill and Fill Requirements** **Closed** **11/02/2010** **11/16/2010** **11/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 321217.3.4.A.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Restore all excavations for the Work in accordance

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

This section states that ¿Contractor shall mill and fill AC pavement as directed by TJPA representative.¿ Prior to bid we must be told exactly which areas are to be milled & filled. If you cannot provide exact and complete parameters (such as a drawing showing the exact limits of the mill and fill required), we will have to assume that absolutely no mill and fill is required. We cannot be expected to know what the TJPA representative will require.

with the specifications inclusive of DPW Order No. 176,707, "Regulations for Excavation and Restoring Streets in San Francisco," which describes the limits of milling and filling for ACWS restoration.

TG043-0040 **Permanent Pavement Restoration Requirements** **Closed** **11/02/2010** **11/16/2010** **11/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 321724.

Typically in SF all permanent pavement restoration is provided by SF at no cost. Are we to provide permanent restoration of pavement markings or will SF provide at no cost?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The Paint Division of the SFMTA will furnish and install all the permanent thermoplastic stripes and pavement markings in accordance with Section 01 15 70.3.8.

TG043-0041 **Fire Hydrant Procurement Clarification** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs 331100.1.1.B & 331100.3.3.C&D.

There is ambiguity regarding fire hydrants. It appears SFFD installs fire hydrants. Do they supply the hydrants? If not, do we have to pay for the hydrants and valves etc.? If we have to pay, EXACTLY what must we obtain and EXACTLY what is the cost? If we are required to purchase something from one source only, we need to be provided with information regarding what we are buying and what it will cost.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SFFD installs fire hydrants. Furnish all materials for Fire Hydrant Services per 33 11 00.3.3.C. Purchase materials from SFFD (through SFPUC) in accordance with 33 11 00.3.3.D. Contact the SFPUC City Distribution Division Material Coordinator at 1990 Newcomb Ave., San Francisco, CA.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG043-0042	**SFWD Temp. Connections**	**Closed**	**11/02/2010**	**11/16/2010**	**11/03/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs 331100.1.1.C.

Does SFWD perform temporary connections that are indicated by the bid documents?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Connections of any new pipe (including new pipe indicated as temporary in the Plans) to existing shall be by SFWD.

TG043-0043	**SFWD Material Transportation**	**Closed**	**11/02/2010**	**11/16/2010**	**11/04/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 331100.1.3.B.

This requires that we move SFFD & SFWD material. What material is that? Perhaps we will understand the fire hydrant situation if previous question, above is answered, but what material is SFWD providing that we have to move? For connections, SFWD has always transported their own material. Please specify exactly what material we need to transport.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Transport materials that are purchased and procured from SFFD and SFWD.

TG043-0044	**Water Dist. Piping & Valves Clarification**	**Closed**	**11/02/2010**	**11/16/2010**	**11/04/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 331100.3.2.E.

See items 2 and 5. What do they mean? This does not make any sense as written. Please provide rewritten specification that can be understood.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See Addendum 3 for reformatted specification section.

TG043-0045	**Side Sewer Replacement Clarification**	**Closed**	**11/02/2010**	**11/16/2010**	**11/04/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Specs. 333110.1.1.A.4.

This section says ¿to replace existing side sewers and/or culverts which are to remain in place as per plans.¿ This could be interpreted to mean that all side sewers and culverts on all portions of the project are to be replaced in their entirety. Is that the intent? If so, please indicate more obviously.

Accept Suggestion: ☐

Replace existing side sewers and/or culverts as indicated on the plans.

TG043-0046 **ACWS and Planning Limits** **Closed** **11/02/2010** **11/16/2010** **11/03/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Specs. 333110.1.1.A.9.

As stated above, please provide exact limits of planning and ACWS.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Restore all pavement in accordance with the specifications inclusive of DPW Order No. 176,707, "Regulations for Excavation and Restoring Streets in San Francisco," which describes the limits of milling and filling for ACWS restoration.

TG043-0047 **Catch Basins and Traps** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Reference: Specs 333110.1.1. A.5 & 11.

Please provide exact limits and count of catch basins requiring cleaning and installation of traps and caps.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID

TG043-0048 **Spigot Type** **Closed** **11/02/2010** **11/16/2010** **11/04/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

333110.2.1.B.

Define ¿spigot¿ type. Is this Bell x Spigot or Spigot x Spigot (Band seal) pipe?

See Addendum 3 for revised specification wording.

TG05.02-0001 **Inclusion of Engineering Enterprise in Bid** **Closed** **02/11/2011** **02/21/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:

Sieera Electric wants to include the Engineering Enterprise for this bid. The Engineering Enterprise (at the advise of their insurance carrier) carries a $75K deductible not a $50K deductible. The Engineering Enterprise is registered as an SBE with the State of California. They have been in business for 36 years and never have had a claim filed against them. Their Insurance Company will not allow the deductible changed for any singular project. Is there a way the deductible difference can be waived?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Insurance requirements as set forth in the subcontract boilerplate exhibit is the responsibility of the firm entering into contract with Webcor/Obayashi Joint Venture.

TG05.02-0002 **Amount for Liquidated Damages** **Closed** **02/11/2011** **02/21/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:

An actual Dollar amount is not specified for the LD's. What is the Dollar amount in the LD's and will it be based on per calendar day.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to Specification Section 00 05 20 Article 4 paragraph 4.02

TG05.04-0001 **Insurance Requirements** **Closed** **02/10/2011** **02/20/2011** **02/03/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:

Does a submitting JV need its own insurance meeting the requirements stated in the RFP, or is the specified

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

YES - if contracting as a JV the JV must be a legal entitiy with it's own insurance.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

coverage being met by the partner firms making up the JV sufficient for the General Contract/Selection Panel?

TG05.04-0002 **Definition of a Joint Venture** **Closed** **02/10/2011** **02/20/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:

What is the Agency's Definition of a Joint Venture and what agreements need to be in place if firms want to submit their proposal as a Joint Venture?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The CM/GC defines a joint venture as provided in California Business and Professions Code section 7029, et seq. Any respondent joint venture must be properly licensed as a single entity and must submit with its Qualification Statement a copy of the joint venture agreement. The agreement shall identify the responsibilities of each partner in the joint venture for the scope of work established by the RFP, demonstrate the relationship between partners, and provide for contractual relationships and authorities to bind each entity to the obligations of the joint venture. The joint venture respondent should submit experience and qualifications as an entity and should submit experience and qualifications for each joint venture partner.

TG05.04-0003 **Temporary Pavement Clarification** **Closed** **02/10/2011** **02/20/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:

In the Traffic Control Specification 01570-2F # 10 "TEMPORARY PAVEMENT" is Temporary Pavement in regards to traffic controls limited to the following:
A. Pothole Patching;
B. "Cutback or Coldpatch" at bridging and plating, handicap ramps, and sidewalk repairs;
C. Misc Roadway Maintenance;
D. Does not include Roadway Grinding or Hot Asphalt

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 01 15 70, paragraph 1.2.F.10 defines ¿temporary pavement¿ as part of the scope for Traffic Routing Work. The requirement for ¿temporary pavement¿ is to accommodate construction traffic control and maintenance of public and construction safety throughout the complete construction duration. It is envisaged that the scope may include pothole patching; "cutback or coldpatch" at bridging and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Application.

plating, handicap ramps, and sidewalk repairs; and misc. roadway maintenance. Usually, roadway grinding and hot asphalt application, which are typically utilized for larger paving areas, and possibly permanent installations, will not be necessitated by ¿temporary pavement¿ work. However, without the opportunity to review the traffic control plan as stipulated in 1.2.A of the same section, we cannot preclude the need at this time.

TG05.2R-0001 **Bass Electric - Switch Board AIC Rating** **Closed** **03/29/2011** **03/29/2011** **03/29/2011** **Potentially** ☐

From: Webcor Construction LP Daniel Foudy **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:
Please provide AIC rating for the (5) five 2500 Amp temp switch boards.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
All overcurrent protective devices within equipment must be able to clear a fault without extensive damage to the equipment itself, as required by the NEC. Therefore, it is the responsibility of the design engineer of the switchgear/switchboard manufacturer/supplier retained by the successful bidder to determine the required AIC rating.

TG05.4-0004 **Team Leader Preference** **Closed** **02/10/2011** **02/20/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:
Will there be a preference for teams led by a Contractor versus a Professional Services Company.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
No Preference as long as the entity possess requried licensing.

TG05.4-0005 **CityBuild/First Source Referral Program Certificate** **Closed** **02/10/2011** **02/20/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:
The proposal checklist (attachment 2) includes "CityBuild/FirstSource Referral Program Certificate" but section 00 04 57 includes no Certification form. What should submitters included in their proposal to satisfy this checklist requirement?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Section 00 04 57 refers your to Section 00 08 20 - required forms are located at the end of Section 00 08 20.

TG05.4-0006 **Warning Sign Clarification** **Closed** **02/10/2011** **02/20/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Transbay PMPC Alfred Lau

Co-Author:

REQUEST:
In reference to section 01-15-50-6, is the GC committed to the specs laid out for the changeable warning signs or can an alternate sign model be used, so long as it meets/exceeds the capabilities of the model specified?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
In accordance with Section 01 15 70 (paragraph 2.4) "Contractor may supply any other model of any other manufacturer meeting these requirements."

TG05.4-0007 **Subcontractor List** **Closed** **02/10/2011** **02/20/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:
The proposal checklist states the submissions must include the item "Subcontractor List (SL)" but there is no "subcontractor list" in the package - does the checklist actually refer to the "Subcontracting Request (SR)" included on page 45 of the proposal manual?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
The "Subcontractor List" (SL) requirement in trhe Exhibit A is a misprint. Use the "Subcontracting Request" (SR) form as noted in the Proposal Manual.

TG05.4-0008 **Traffic Control Plan Budget** **Closed** **02/10/2011** **02/20/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:
Has an overall budget for the Traffic Control Plan development and execution been establish or is that TBD?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
No Budget Established for this RFP.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG05.4-0009	**Non-Discrimination in Contracts and Benefits**	**Closed**	**02/10/2011**	**02/20/2011**	**02/10/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Tim Maxwell

Co-Author:

REQUEST:

The proposal checklist in Attachment 2 specifies "NonDiscrimination in Contracts and Benefits (section 00 04 70)" but the only mention of this section is in the Specifications' table of contents where the title and information are struck through/crossed out. What do the submitters need to include in proposals to satisfy the checklist requirement?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Inclusion of form is a misprint. Section 00 04 70 was deleted under Rev. 2 of the contract Specifications. The form is no longer required and will not be included in RFP reviews.

TG08.1-A001	**Blast Loading**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 26 - 1.5.B.f

Is "Blast Loading" criteria applicable to all systems? It is shown in all of the specifications, but is only used by Schlaich Bergman in the design of W-3 (CW-2).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Each system must comply with the Blast Criteria outlined in the performance criteria for each system in the following specification sections: 08 44 23/1.5-C.1.k, 08 44 26/1.5-B.1.f, 08 44 33/1.5-A.2.f, 08 44 36/1.5-B.1.f, and 08 63 03/1.5-B.1.h.
W1 and W10 must be tested for Blast, per sections 08 44 26/1.8-G and 08 63 03/1.8-C.

TG08.1-A002	**Spec Clarification**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 03; S1-6000; 08 44 36; S1-6001

In drawing S1-6000, specification 08 44 03 is mentioned for three wall types (W-1, W-3 & W-8). According to the table of contents, specification 08 44 03 does not exist. On drawing S1-6001, refers to spec 08 44 36 for the skylight (W-10). This spec section refers to W-8. Please clarify the applicable spec section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Section 08 44 03 does not exist. S1-6000 and S1-6001 will be corrected in the document set issued for bid. See the table of contents, Section 00 01 10.21, for a list of sections that apply.

☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TG08.1-A003	**Wall Type Nomenclature**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

The drawings reference "CW" wall types and the IFB and specifications reference "wall types". Please confirm the following correlation: W-1 = RSC-1 & RSC-2; W-3 = C-1; W-4 = C-2; W-8 = CW-3; W-10 = SL-1. Please clarify the applicable specification section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The October 15, 2010, Stage One Design-Build Glazing drawings and specifications refer to Curtain Wall systems noted as W1, W3, W4, W8, and W10. See the documents for a description of the systems.
Earlier designations used in prior in-progress drawing issues no longer apply.

TG08.1-A004	**Glass Specification**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 26-25; 2.2-A-1

Please clarify the glass specification; According to spec 08 44 26-25, para 2.2-A-1, "heat strengthed"' according to spec 08 44 26-25, para 2.2-A-1-a, "full tempered float glass". Which should it be?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Heat strengthened" glass in accordance with Section 08 44 26/2.2-A-1 is required. References to full tempered float glass will be removed from the specification section in the documents issued for bid.

TG08.1-A005	**Glass Spec - Frit**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 26-25 / A-8021 & A1-8140

No frit is required according to spec 08 44 26-25, para 2.2-A-1-a Glass with frit is shown on dwgs. A-8021 / A1-8140. Should there be glass with frit or not?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Frit is required on the W-1 glass as shown on the drawings. Specification section 08 44 26 will be corrected to include a frit requirement when issued for bid.

TG08.1-A006	**Corner Supported Glazing Assemb (W-1)**	**Closed**	**11/30/2010**	**12/14/2010**	**12/06/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Spec Section/Dwg Sheet: 08 44 26-2

3. Joints: Ventilation shall be provided through the awning through the 3/4" gaps between each of the glass panels, according to spec 08 44 26-2, para 1.2-A-5. [More]"¿designed using rainscreen system with 2 layers of defense with rainscreen seal and continuous air seal system." - spec 08 44 26-8, para 1.5-D. Interpret that the joints shall be opened, not sealed. If the joints will not be sealed, all items specifying the sealing system in spec 08 44 26, will not be applied to W-1? Please confirm the interpretation.

Two layers of defence with rainscreen seal are not required at W-1. Paragraph 1.5-D will be deleted from Section 08 44 26 when the section is issued for bid.

TG08.1-A007 **Cable supported glazed curtain wall (W-3) - Steel** **Closed** **11/30/2010** **12/14/2010** **11/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33-2 / A1-8100; A1-8201

1. Steel spec: "with stainless steel Tee sections consisting of steel plates and a double row of stainless steel cables" - spec 08 44 33-2, para. 1.2-A-1.; [note] "PTD. Galv steel horizontal girder" and "S.S. clip screwed to welded T-section" per dwg. A1-8100; [note] "painted galv. steel horizontal girder" per dwg A1-8201. Interpret that painted galv. steel horizontal T-section and stainless steel cables and cable clamps are required. Is that correct?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This question will be resolved prior to the documents issued for bid.

TG08.1-A008 **Cable supported glazed curtain wall (W-3) - Glass** **Closed** **11/30/2010** **12/14/2010** **12/06/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33-27

2. Glass spec: "heat strengthened" glass per spec 08 44 33-27, para 2.2-C; "fully tempered float glass" per spec 08 44 33-27, para 2,2-C-1 & C-2. Should the glass be "heat

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Heat strengthened" glass in accordance with Section 08 44 33/2.2-C is required. References to full tempered float glass will be removed from the section in the documents issued for bid.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

strengthened" or "fully tempered"?

TG08.1-A009 **Cable supported glazed curtain wall (W-3) - Glass Type GL-1B** **Closed** **11/30/2010** **12/14/2010** **12/06/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33-27

3. Glass spec: GL-1B are spandrel panels according to spec 08 44 33-27, para 2.2-C-2. Cannot locate GL-1B in the drawings. Please advise on location of type GL-1B.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Glass type GL-1B has been eliminated from the W3 system. Section 08 44 33 will be revised to reflect this in the documents that will be issued for bid.

TG08.1-A010 **Cable supported glazed curtain wall (W-3) - Fall Protection system** **Closed** **11/30/2010** **12/14/2010** **11/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33.7

4. Fall protection system: per spec 08 44 33-7, para 1.5-A-3, should the fall protection system be included in the W-3 package? Please advise of the locations if the fall protection package is required in this assembly.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Fall protection is not required on the W-3 system. The specification section will be modified in the documents issued for bid.

TG08.1-A011 **Cable supported glazed curtain wall (W-3) - Firestopping** **Closed** **11/30/2010** **12/14/2010** **12/06/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33-28

5. Fire stopping: per spec 08 44 33-28, para 2.4-C, is there any fire stopping required for package W-3? If so, please advise on the location of the fire stopping.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Firestopping is not required anywhere with the W3 system. Section 08 44 33 will be modified to delete the firestopping paragraph 2.4-C in the documents issued for bid.

Webcor/Obayashi Joint Venture

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TG08.1-A012	Cable supported glazed curtain wall (W-3) - Documents	Closed	11/30/2010	12/14/2010	12/07/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 33-20

6. Missing documents - spec section 01 35 73 is mentioned in 08 44 33-20, para 1.8-E; spec section 05 12 13 is mentioned in spec 08 44 33-29, para 2.5-B. [Please provide if they are required.]

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Refer to response TG08.1-A001. W-3 will not require Blast Testing.
The Blast Test procedure referenced as Section 01 35 73 has not been issued. The Blast Test procedure specification will be issued with the documents issued for bid.

TG08.1-A013	Steel-framed glazed curtain wall (W-8) - Glass	Closed	11/30/2010	12/14/2010	12/07/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 36-26

1. Glass spec: "heat strengthened" glass accoring to spec 08 44 36-26, para 2.2-A; "full tempered float glass" according to spec 08 44 36-26, para 2.2-A-1 & A-2; "laminated float glass" according to spec 08 44 36-26, para 2.2-A-3 & A-4. Should glass types GL-1 & GL-1A be "heat strengthened" or "fully tempered float glass"? Should glass types GL-2 & GL-2A be "heat strengthened" or "float glass"?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Heat strengthened" glass is required in response to each question in TG08.1-A013. The inconsistencies will be eliminated in the documents issued for bid.

TG08.1-A014	Steel-framed glazed curtain wall (W-8) - Glass Types GL-2 & GL-2A	Closed	11/30/2010	12/14/2010	12/06/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 36-26

2. Glass spec: according to 08 44 36-26, para 2.2-A-3 & A-4, there are glass types GL-2 & GL-2A. Please advise on the location(s) of GL-2 & GL-2A.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GL-2 is used on all vertical surfaces of the cafe shown on A1-8360. GL-2A is used on all skylight roof surfaces of the cafe shown on A1-8360.

TG08.1-A015	Steel-framed glazed curtain wall (W-8) - Glass Frit	Closed	11/30/2010	12/14/2010	12/07/2010	Potentially	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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REQUEST:

Spec Section/Dwg Sheet: 08 44 36-26 / A1-8351

3. Glass spec: According to spec 08 44 36-26, para 2.2-A-1, no frit is required for GL-1. Glass with frit is shown on dwg. A1-8351. Should this glass be provided with frit or not?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

GL-1 is required on elevation 1/A1-8352 and 1/A1-8353. GL-1A is required on the glass roof as referenced 1/A1-8351. GL-1A is required on elevation 1/A1-8351 below elevation 96"-9".
In the documents issued for bid, the frit will be eliminated above elevation 96"-9" on the north and south elevation shown on 1/A1-8351, and the glass in this zone will be noted GL-1.
See A1-8357 for frit patterns.

TG08.1-A016 **Steel-framed glazed curtain wall (W-8) - Removable sections** **Closed** **11/30/2010** **12/14/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 36-26

4. Removable sections; please clarify and advise on the location(s) of the "removable section of curtain wall" per spec 08 44 36-2 & 36-3, para 1.2-A-12 and parap 1.2-B-12.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The removable glass requirement will be deleted in the documents issued for bid.

TG08.1-A017 **Steel-framed glazed curtain wall (W-8) - Firestopping** **Closed** **11/30/2010** **12/14/2010** **12/06/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 44 36

5. Fire stopping: per spec 08 44 36-2, para 1.2-A-18 & spec 08 44 36-32, para 2.7-C, is there any fire stopping required for the W-8 assembly? Please advise on the location of the fire stopping, [if required].

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Firestopping is not required anywhere with the W8 system. Specification section 08 44 36 will be modified to delete the firestopping paragraph 2.7-C in the documents issued for bid.

TG08.1-A018 **Metal-framed skylights (W-10) - Steel** **Closed** **11/30/2010** **12/14/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

Webcor/Obayashi Joint Venture

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Spec Section/Dwg Sheet: A1-8401

1. Steel spec: "All grid shell members, nodes, mullions, cables, glass clamps & fasteners are to be stainless steel, per dwg. A1-8401. Please confirm that all of these parts are to be stainless steel? Or should only the cables be stainless steel?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This question will be resolved prior to the documents issued for bid.

TG08.1-A019 **Metal-framed skylights (W-10) - Glass** **Closed** **11/30/2010** **12/14/2010** **12/06/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

Spec Section/Dwg Sheet: 08 63 03-25

2. Glass spec: per spec 08 63 03-25, para 2.2-A, shown to be "heat strengthened" glass; per spec 08 63 03-25, para 2.2-A-1, shown as "fully tempered float glass". Should the glass be "heat strengthened" or "fully tempered"?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"Heat strengthened" glass in accordance with Section 08 63 03/2.2-A is required. As noted, "Final glass schedule to be determined from the results of testing defined in section 1.5 A 12.g and calculations."

TG08.1-A021 **Steel (W-10) - AESS type** **Closed** **12/01/2010** **12/15/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

It is specified Architecturally exposed structural steel, but drawing A1-8401 indicates stainless steel for system W-10. What material shall be used for the grid shell of the skylights?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This question will be resolved prior to the documents issued for Bid.

TG08.1-A022 **Blast Loading Reqs** **Closed** **12/01/2010** **12/15/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Adamson Associates, Inc George Metzger

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

The blast requirement is mentioned in all above listed specifications but the "Transbay transit Center Basis of Design Report" from Schlaich Pergermann and Partner LP dated October 18, 2010, indicates blast load only for the Grand Hall façade (w-3)? Which glazing systems have a bomb blast requirement?

See responses TG08.1-A001 and TG08.1-A012. The Basis of Design Report from Schlaich Bergermann and Partner LP will be modified in the documents issued for bid.

TG19.01-0001 **TG19.1 Questions 0001 - (E) Lighting** **Closed** **10/11/2010** **10/25/2010** **10/13/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref C-2000

There are currently (E) light fixtures in the (5) planter boxes. Are we required to stub up electrical conduits for the future installation of light fixtures in the planter boxes?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor is to locate, cut, and cap all existing electrical lines feeding existing lights within existing planter boxes. Prior to removal of the planters, the contractor shall verify the location of existing electrical lines within the limits of work. Cutting and capping of existing electrical lines shall occur at the face (north) of the new interim screen wall and shall facilitate the future use and connection to reinstalled planter boxes (and lights) by others at a future date. See Note 3 on Drawing C-2000.

Fyfe, David (URS Corporation)

TG19.1-0002 **TG19.1 Questions 0002 - Stone** **Closed** **10/11/2010** **10/25/2010** **10/13/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref S-0002 Note 6-B

Please provide "Architect Approved" stone support system, anchors, and accessories for the stone walls.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor is to propose stone support systems, anchors and accessories that comply with requirements of the Contract Documents; Architect to approve.

Fyfe, David (URS Corporation)

Webcor/Obayashi Joint Venture

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TG19.1-0003	**TG19.1 Questions 0003 - Stone**	**Closed**	**10/11/2010**	**10/25/2010**	**10/13/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref S-0002 Note 6-A

Please provide manufacturer & specs for the stone panels.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

New stone panels to match existing stone panels. All available information on existing stone panels has been provided on the drawings. Contractor is to submit manufacturer and specs of new stone panels to Architect for approval.

Fyfe, David (URS Corporation)

TG19.1-0004	**TG19.1 Questions 0004 - (N) Lighting**	**Closed**	**10/11/2010**	**10/25/2010**	**10/13/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref C-2000 Note 10

Please provide the locations where the (N) in ground lights will be reconnected to. Electrician needs to know where the (N) in-ground lights will receive power.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor shall disconnect existing underground electrical lines servicing existing in-ground lights and reconnect existing electrical lines to new in-ground lights. New in-ground lights are to be inset into asphalt pavers/topping slab. New in-ground lights shall be located at new wall slots (4 total) and shall be placed between the face (north) of the new wall and the new concrete curb. See Note 10 on Drawing C-2000.

Existing electrical power source servicing existing in-ground lights is to be located in field; locating and shut-off of existing power source to be coordinated with TJPA Representative.

Fyfe, David (URS Corporation)

TG19.1-0005	**TG19.1 Questions 0005 - (E) Lighting**	**Closed**	**10/11/2010**	**10/25/2010**	**10/13/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref C-2000 Note 10

Please provide specifications for the (E) in-ground lights. Require specs in order to match manufacture, size, and model type.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Type, model, size, and manufacturer of existing in-ground lights to be determined in field by contractor. Contractor to submit manufacturer and specs of new in-ground lights to TJPA Representative for approval.

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Fyfe, David (URS Corporation)

TG19.1-0006 **(E) Lighting** **Closed** **10/15/2010** **10/29/2010** **10/13/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref C-2000 Note 10

Note 10 calls out contractor to disconnect (E) underground electrical line servicing (e) in ground lights and reconnect to (n) in ground lights. There are no asbuilt drawings showing (e) conduit routing and depth to determine if additional demo of concrete or excavation for conduit routing is required. Please provide additional information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The depth and alignment of existing electrical conductor/conduit shall be determined in field by the Contractor; work shall be coordinated with the TJPA Representative.

Fyfe, David (URS Corporation)

TG19.1-0007 **Nelson Studs Welding Requirements** **Closed** **10/15/2010** **10/29/2010** **10/15/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Ref S-500, S-4000 2&3/S5000

On wall elevation A on sheet S-4000 and detail 2/S-5000 the #6 verticals are referred to as Nelson Studs. Are the #6 verts to be welded to the (e) embed plate? If so, what are the welding requirements? If the (e) embed is not continuous or does not exist, do the #6 verts get drilled and epoxied into the (e) concrete?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

#6 verticals referred to as a nelson product are deformed bar anchors. Yes, #6 verticals are welded to the existing embed plate. The welding requirement is full penetration. If the existing embed plate is not continuous and/or does not exist, the #6 verticals shall be drilled and epoxied 6" into existing concrete with Hilti RE500 or approved equal.

Fyfe, David (URS Corporation)

TG19.1-0008 **(E) Chain LInk Fence** **Closed** **10/15/2010** **10/29/2010** **10/15/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Ref A/C-5000

Note calls out for (e) chain link gate to be removed and relocated. Drawings do not show were the gate shall be relocated or if additional fencing is required. Please clarify.

Remove and relocate (E) chain link gate/fence as-required. The location of the gate shall be coordinated in field with the TJPA Representative. The extent of the new temporary construction fence is shown on Drawing C-2000.

Fyfe, David (URS Corporation) 10/15/2010

TG19.1-0009 **Joint Sealant** **Closed** **10/15/2010** **10/29/2010** **10/15/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

A-B/A-6000

In details A&B, the drawings show a 1/2" joint between the aluminum composite panel and the epoxy set stone panel with no sealant. The (e) wall joint is caulked with sealant. Should this joint be sealed?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No, there is no sealant between the aluminum composite panel and the epoxy set stone panels.

Fyfe, David (URS Corporation) 10/15/2010

TG19.1-0010 **Painting** **Closed** **10/15/2010** **10/29/2010** **10/15/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

A&D/A-6000

The drawings call for the wall on the transbay terminal side to receive 16ga galv. Coated G90 rolled steel panels. The (e) wall looks to be plaster w/expansion jonts. Are there any specific requirements for joints etc. on the (n) wall. Does the (n) wall get painted?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The requirements for the joints on the terminal side are shown on Detail E/A-6000 for the vertical joints and Detail D/A-6000 for the top and bottom horizontal joints. Intermediate horizontal joints should not be provided. Note on Detail E/A-6000 the SASM waterproofing sheet behind, and the 2" overlap of the 16 Ga steel sheet. The overlap also includes a 3" width of sealing tape between the sheets. The metal sheet joints are then secured to the plywood backer behind with stainless steel self-tapping sheet metal screws at 8" on center. The rolled sheet is to be galvanized for weather resistance, but is not painted.

Fyfe, David (URS Corporation) 10/15/2010

Webcor/Obayashi Joint Venture

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TG19.1-0011	**TG19.1 Questions 0011 - Concrete Curbs**	**Closed**	**10/15/2010**	**11/18/2010**	**10/15/2010**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Manuel Saldana **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

C-2000 & C-5000
Plan view on sheet sht C-2000 calls for (4) new 9" x 12" concrete curbs. Detail B-C-5000 shows the curbs in section. Do these curbs get placed on top of the (E) pavers of do they go down on top of the 4" topping slab w/pavers around the (N) curb? Are there any rebar or epoxy anchorage requirements?

SUGGESTION:

Answered by David Fyfe, 10/15/10
New concrete curbs are to be placed on top of existing 4" topping slab. Remove and replace existing pavers as required to facilitate construction of new concrete curb. Height of curb shall be measured from top of pavers.

For vertical reinforcement, use four #3 bars (equally spaced with a minimum of 4" cover at each end); for anchorage, drill four 1" embeds per curb. For longitudinal reinforcement, use two #3 bars with minimum 3" cover.

ANSWER: **Accept Suggestion:** ☐

New concrete curbs are to be placed on top of existing 4" topping slab. Remove and replace existing pavers as required to facilitate construction of new concrete curb. Height of curb shall be measured from top of pavers.

For vertical reinforcement, use four #3 bars (equally spaced with a minimum of 4" cover at each end); for anchorage, drill four 1" embeds per curb. For longitudinal reinforcement, use two #3 bars with minimum 3" cover.

Fyfe, David (URS Corporation) 10/15/2010

TG4.2R-0001	**AWSS Experience Requirement**	**Closed**	**01/24/2011**	**02/03/2011**	**01/28/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Joanne Filipas

Co-Author:

REQUEST:

Reference BOE Specifications Section 02723, Part 3

There was discussion at the Pre-Bid Meeting that an upcoming addendum may change the experience requirements to do the AWSS work, above the usual DPW requirements currently in the specifications. This has the potential to rule out perfectly competent bidders and reduce the pool of bidders. Shaw Pipeline hopes there will not be a change from the specifications in this regard

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

There will be no change to requirements currently carried in bid documents.

TG4.2R-0002	**AWSS Fittings Procurement Schedule**	**Closed**	**01/24/2011**	**02/03/2011**	**01/25/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor/Obayashi Joint Ve Richard Buellesbach

Co-Author:

REQUEST:

The foundry that fabricates the fittings recently quoted Shaw Pipeline Inc. 18-20 weeks to procure fittings. Assuming this timeframe will be similar at the time of contract award, the current schedule will not be

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The response to this QBD will require input from all parties involved. W/O will not be providing a preliminary answer at this time

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achievable. Will an extension of time by granted, equal to the time taken to get the fittings?

TG4.2R-0003 **AWSS Fittings Materials Payment** **Closed** **01/24/2011** **02/03/2011** **01/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay Joint Powers Au Sara Gigliotti

Co-Author:

REQUEST:

The foundry that fabricates the fittings will require payment in full upfront. Assuming it is a further 18-20 weeks before the contractor get the fittings to install, will a payment be made upfront to the trade subcontractor at the time the foundry requests payment and of the full cost of the materials?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Federal, State, and local law prohibit TJPA from paying for materials prior to their incorporation into the public work. The limited exception to this rule is that the CM/GC may apply for a partial payment (up to 75% of fair market value) for materials delivered and stored on site, subject to inspection and specified restrictions. (Contract General Conditions (Section 00 07 00), at 9.03I.)

TRANSWORLD 012 **Detail required for concrete sleeve installation** **Closed** **02/08/2011** **02/08/2011** **04/20/2011** **Potentially** ☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

---- detail required for concrete sleeve installation
The existing condition of the manhole covers is not consistent with our contract documents. Detail 1/C- 5001 indicates
that the existing manhole sits on existing concrete slabs to which we are to drill 1 inch embedment. However, if you refer
to the attached photograph indicated as picture one, you can clearly see that the manhole cover is actually a part of a
concrete ring assembly. Please provide a new detail and instructions for the installation of the required concrete sleeve.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI is superseded by Transworld RFI 012.1, forwarded to Turner as T-0030.

TRANSWORLD 014 **RFI is not applicable** **Closed** **04/20/2011** **04/30/2011** **04/20/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

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From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:
RFI has been VOIDED. See attachment.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
RFI has been VOIDED. See attachment.

TRANSWORLD 021 **Instructions on new Barricade Wall** **Closed** **03/21/2011** **03/22/2011** **03/28/2011** **Potentially** ☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
Please provide instructions on what barricade wall is desired in lieu of the plywood wall. The storm this past weekend is
a clear indication that a solid material wall should not be used as a visual baricade. The storm blew down that wall. Please issue instructions on how we are to proceed.
At present, A-frame barricades, caution tape, and safety cones are up.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Due to field directives to mitigate the problem, this RFI is null and void.

TRANSWORLD 022 **Electrical work for the existing conduit protruding from the soil from the basemen** **Closed** **03/29/2011** **03/29/2011** **03/29/2011** **Potentially** ☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:
There is one existing conduit on the south side of the wall protruding from the soil coming from the basement wall. The
electrical conduit is approximately 6 feet east from the western transformer vault vent opening. Attached you can see the
pictures of this conduit that is currently sticking out below the scaffolding planking.
Please provide instructions on electrial work.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
This RFI is superseded by Transworld RFI 022.2, forwarded as T-0031.1.

TRANSWORLD 022.1 **Electrical work for the existing conduit protruding from the soil from the basemen** **Closed** **03/29/2011** **03/29/2011** **03/29/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

There is one existing conduit on the south side of the wall protruding from the soil coming from the basement wall. The
electrical conduit is approximately 6 feet east from the western transformer vault vent opening. Attached you can see the
pictures of this conduit that is currently sticking out below the scaffolding planking. An added supplemental plan is also
attached for your reference.
Please provide instructions on electrial work.

This RFI is superseded by RFI 022.2, forwarded to Turner as T-0031.1.

TRANSWORLD 023 **Void below existing embed** **Closed** **03/31/2011** **04/10/2011** **03/31/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Transworld Construction, Inc. Erik Liu **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Regarding the grouting work scheduled for tomorrow to fill the voids per W/0 RFI #T-0045 ... the grouting contractor is
requesting to use the grout mix design as indicated in the following sheet. Apparently this matter was raised with Mr. Doug Jacobson who knows that this substitution
request!RFI is on the way. The attached sheet is a specification
program from another project not related to the Transbay Project. Our contractor's recommendation is to use this same
grout mix design. Please advise if the use of this grout mix design is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID RFI. Work was already compelted and this RFI no longer applies. See confirmation attached.

TRANSWORLD 025 **Electrical conduit and box detail** **Closed** **04/04/2011** **04/05/2011** **04/15/2011** **Potentially** ☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

We need direction for the electrical installation inside the new concrete stem wall. We are planning on installing the formwork for the south-side of the wall starting

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The question stated "It is our understanding that we are completing abandoning the originally anticipated electrical lighting work as anticipated in our contract

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Wednesday morning. As such, we need to install the electrical conduits
and boxes tomorrow, Tuesday, at the latest to meet our schedule.
Please provide detailed information on the entire conduit run and the elevation of the boxes.
It is our understanding that we are completing abandoning the originally anticipated electrical lighting work as anticipated
in our contract documents.

documents." However there are no electrical drawings in the contract documents. This RFI was recieved at 4:28pm, the day before the wall was to be closed up, and requests an answer by tomorrow, which is not enough time to review. Due to the timing of this RFI, it was not submitted to the design team, but instead a meeting was held with URS in the field for direction. For record, see the attached inspection report and email for what is to be done.

TRANSWORLD 026.1 **301 Mission Wall - Framing Modifications and Base Plate Conflict** **Closed** **05/06/2011** **05/16/2011** **06/01/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Reference: C/S-5000, B/A-6000, attached sketches, and referenced RFI's

Field verified measurements and layout for the location of the structural steel does not coordinate with the stucco inset locations as shown on detail C/S-5000. In addition framing around the perimeter of the wall (aluminum panel locations) had to be modified due to assembly and installation methods. (See attached pictures and sketches. This RFI addresses three framing issues. All issues have been discussed in the weekly 301 Mission Wall subcontractor meeting with URS, Turner, Transworld, TJPA and Webcor-Obayashi.

1.) In two of the four stucco slot locations, field conditions show that a portion of the base plate conflicts with the stucco slot. This base plate encroaches into the stucco panel per dimensions shown on the attached sketch. Please advise.

2.) The structural steel had been relocated to CL of the wall (per RFI T-0098) and therefore studs around the steel per B/A-6000 could not be set per plan. Transworld has installed hat channel metal framing to the face of the structural steel tube using fasteners into the structural steel as per RFI T-0106 as well as modified the boxed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

framing per attached sketches around the perimeter of the wall. Sizes of metal framing were used to align with adjacent framing per plan. This work is currently installed, please confirm framing modifications per attached marked up details are acceptable.

3.) Blocking a the top of the wall at the north side (between the framing and 8"x 8" tube steel) was not installed, as there was no room between the framing and steel. Framing was attached directly to the tube steel. See attached.

Please confirm that the framing modifications in item 2 and 3 are acceptable and provide direction at the base plate conflict per item 1.

TRANSWORLD 028 **Install the sleeves for light fixtures** **Closed** **04/14/2011** **04/24/2011** **04/14/2011** **Potentially** ☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Per W/O Field directions, TCI was required to install 1-1/2" sleeves for future light fixtures at new concrete footing below the asphalt paver. Please confirm if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached URS email for direction on placement of conduit installations through the 301 Mission concrete wall.

Email from David Fyfe on 04/07/11 states:
"We met in the field this morning and agreed to provide/install three conduit layout options to maintain scheduled pour and help ensure the new electrical/conduit alignment provides a code compliant preferable connection to the future lights;

1) conduit/boxes in wall as installed prior to today with minor adjustments to provide required clearances to steel;
2) conduit running east-west along north side of wall as installed this morning;
3) conduit running east-west along south side of wall, (note this option only required providing 4 short (approx. 18") conduit runs from south side of wall to north side of wall prior to pour, and was provided in case there are issues with options 1 and 2)."

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
TRANSWORLD 029	**Extra HSS Steel Column needed**	**Closed**	**04/13/2011**	**04/23/2011**	**04/13/2011**	**Potentially**	☐

From: Transworld Construction, Inc. Erik Liu **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Reference: S-4000

On sheet S-4000, it is indicated that the tube steel should be maintained 8" clear on both sides where the utility vault is located. The two (2) steel tube at the east end wall is more than 5' apart. Please clarify that an additional tube steel is needed?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proceed per contract documents. Specifically notes on S-4000 regarding the spacing requirements of the 10" x 10" tube steel.
1. HSS 10" x 10" x 5/8" at 5'-0" O.C. MAX, UNO
2. Maintain 8" clear from edge of utility vault vent opening to centerline of post.

TRANSWORLD 031	**Stone and Aluminum Panel layout sketch**	**Closed**	**06/08/2011**	**04/19/2011**	**04/19/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Transworld Construction, Inc. Erik Liu **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

Please confirm the attached aluminum and stone tile layout is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

This RFI does not clearly state an issue or a good question. Why is it being asked? We will not forward this on until more detail is provided.

Responded to RFI in an email on 4/19/11.

TRANSWORLD 038	**Concrete mix design for concrete repair work**	**Closed**	**06/08/2011**	**06/18/2011**	**06/08/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Webcor Construction LP David Hungerford **Answered By:** Webcor Construction LP David Hungerford

Co-Author:

REQUEST:

This is to respond to submittal title TA1010.S-5000.A01 Rapid Set for Concrete Repair (TCI #31)
Please identify a product or a custom mix design that would meet these specifications. In our past practice we have
successfully used the suggested grout product as a concrete patch. In our investigations with suppliers and other
contractors, it seems that the general conclusion is that using a grout product (such as the one proposed) would be
the appropriate product for this application and condition. The proposed grout seems to offer greater strength and structural performance than the original concrete that has

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The submittal response referenced in this RFI is incorrect. The suggested product was never submitted past Webcor-Obayashi's possession. Due to compliance with the direction given per response to RFI T-0130, a submittal was not required.

An email chain was generated from conversations between W/O and Turner, then a message sent between Turner and URS, which relayed the product type and an email chain starting from URS was recieved noting that the material is not acceptable. Upon further review of codes, the material is acceptable, which had been discussed in the weekly subcontractor meeting held on Monday June 6, 2011.

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since been removed.
Is there another product that you could identify that would achieve these specifications? Since we are not the project designers, we can only suggest those products that would generally be used and accepted in our standard of practice It was based on this standard of practice that we submitted the RapidSet grout product.

This RFI is no longer valid. Transworld is to submit products that will be used to repair this condition, per sub meeting.

Transworld is aware of this and is submitting product for review.

TRANSWORLD 039 | **301 Mission Wall - New concrete curb detail** | **Closed** | **06/13/2011** | **06/30/2011** | **06/13/2011** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Webcor Construction LP David Hungerford **Answered By:** Transworld Construction, I Erik Liu

Co-Author:

REQUEST:
Please provide detail for the new concrete curb

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
David,

Hold the RFI and product submittal that you got today. I will revise the rfi b ased on today's discussion and the concrete submittal may not be necessay based on a conversation I had with danny.

-Erik

U-0001 | **First Street Electrical or Telecom Trench** | **Closed** | **10/25/2010** | **11/08/2010** | **11/05/2010** | **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:
Ref U-2016, U-2020 and Attached

Sheet U-2016 calls out a 9-6", 1-4" E by PG&E. Sheet U-2020 calls out the same trench as AT&T's. The section shows it as a AT&T's. Please confirm this trench is AT&T's.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Sheet U-2020 call out for the subject trench is correct, the trench is AT&T's.

U-0002 | **Conflict with Electrical and Water Pipe Station 5.50** | **Closed** | **10/25/2010** | **11/08/2010** | **11/05/2010** | **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Webcor Construction LP Jeffrey Negley

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:
Ref U-3408 and attached.

During the review of the model, we have found that a conflict exists between the joint trench electrical conduits and water pipes. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Adjust Joint Trench per U-3400 General Notes 2, 3, 5 and 6.

Construct hydrant lateral to maintain a minimum 28-inch cover (18-inch below street concrete base) and adjust joint trench at lateral crossing to maintain a minimum 6-inch separation at crossing per U-3400 General Note 6.

U-0003 **Conflict Between Electrical trench and telecom conduit near station 1.50** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:
Ref U-2007, and attached

During our review of the model, we have found a conflict between the electrical joint trench and telecom conduit near station 1.50 on Minna Street. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
4-6" Electric ductbank is to cross under the 6-4" Telecommunications ductbank, see U-3407 and U-3410 Section E.

U-0004 **Telecom and Water Conflict Station 3.25** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:
Ref U-2007 and attached.

During our review of the model, we have found that the water latereal running north on Minna street is in conflict with telecom conduits in the joint trench. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Adjust Joint Trench per U-3400 General Notes 2, 3, 5 and 6.

Construct hydrant lateral to maintain a minimum 28-inch cover (18-inch below street concrete base) and adjust Joint Trench at lateral crossing.

U-0005 **Water, Telecom and Electrical Conflict at Station 5.50** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

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From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2008, U-2030 and attached.

During our review of the model, we have found that the water system running in the east/west direction along Minna Street at station 5.50 is in conflict at three locations with the Electrical/Telecom joint trench. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

At water laterals crossing Joint Trench:
- Adjust Joint Trench per U-3400 General Notes 2, 3, 5 and 6.
- Construct hydrant lateral to maintain a minimum 28-inch cover (18-inch below street concrete base) and adjust Joint Trench at lateral crossing.

At water main crossing with 6-4-inch conduit constructed by AT&T in Phase II (Sheet U-2030):
- Construct water main as shown.
- AT&T to design and construct Phase II AT&T conduit to avoid water main constructed under TG04.5.1.

U-0006 **Gas and Electrical Conduit Conflict** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2008, U-2030 and attached.

A conflict exists between the 4" HPG and electrical conduits near station 6.45. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Electrical trenches at STA 6+42 +/- and at STA 6+85 +/- as shown on Sheet U-2030 are Relocation of Utilities Project Phase II work Not Included in Package TG04.5.1. The FINAL alignment and elevation of these trenches will be coordinated and designed by others pending the conduit penetration elevations through the Transit Center perimeter shoring wall and into the Transit Center West Center Electric Vault. As shown in Sheet U-3410 Section Q electric ductback is located below the 4-inch HPG. Per U-3410 General Notes 2, 3, 5 and 6 adjust Joint Trench at crossings to allow conduits to stub out below the 4-inch HPG.

U-0007 **Water and Electrical Conduit Conflict at Station 6.50** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2030 and attached.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Electrical trenches at STA 6+42 +/- and at STA 6+85

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
	The water line running east/west along Minna street is in conflict with an Electrical trench at station 6.45. Please advise.						+/- as shown on Sheet U-2030 are Relocation of Utilities Project Phase II work Not Included in Package TG04.5.1. The FINAL alignment and elevation of these trenches will be coordinated and designed by others pending the conduit penetration elevations through the Transit Center perimeter shoring wall and into the Transit Center West Center Electric Vault. U-2030 elevation shows the ductbancks crossing under the 8-inch water in Minna Street.
U-0008	**Gas and Water Conflict at Station 7.30**	**Closed**	**10/25/2010**	**11/08/2010**	**11/05/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas

To: Turner Construction Compan Daphne Faulkner

Answered By: AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2009 and attached.

A conflict exists between the HPG and water line at station 7.30 along Minna Street. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Adjust Joint Trench per U-3400 General Notes 2, 3, 5 and 6.

Construct hydrant lateral to maintain a minimum 28-inch cover (18-inch below street concrete base) and adjust joint trench at lateral crossing to maintain a minimum 6-inch separation at crossing per U-3400 Note 6 with approval from PG&E on-site inspector.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0009	**Joint Trench and Sewer Conflict on First Street at Station 9.25**	**Closed**	**10/25/2010**	**11/08/2010**	**11/05/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2009 and attached

The sewer line running in the north south direction at station 9.25 along First street is in conflict with the electrical joint trench. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Adjust Joint Trench per U-3400 General Notes 2, 3, 5 and 6.

Joint Trench crossing 10-inch SD at STA 9+29 +/- is shown in U-3409 and U-3031 Profile D.

U-0010	**Electrical Line Transition In Joint Trench from Minna to Shaw Alley**	**Closed**	**10/25/2010**	**11/08/2010**	**11/05/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-3408, Q/U-3410, P/U-3410 attached.

Section Q/U-3410 shows a 5" and 2" electrical line on the north side of the joint trench. Section P/U-3410 shows the same 5" and 2" electrical lines on the west side of the joint trench as it turns north on Shaw Alley. Is the intent for these electrical lines to cross within the joint trench? Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No. The 5-inch and 2-inch electric conduits in Section Q/U-3410 should be located on the south side of the Joint Trench

---

U-0011	**Manhole #203 Elevation Conflict**	**Closed**	**10/25/2010**	**11/08/2010**	**11/05/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U3031, U3007 and attached.

Detail B/U-3031 shows the elavtion of manhole #203 at 21.75 however U-3007 calls out an elevation of 22.0. Please confirm what the elavation of Manhole #203 is.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct sewer MH#203 rim to match existing grade at EL 22.0 +/- as shown on Sheet U-3007.

U-0012	**Electrical/Telecom Conflicts between Plan and Section**	**Closed**	**10/25/2010**	**11/08/2010**	**11/05/2010**	**Potentially**	☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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REQUEST:

Ref U-1108. U4000, H/4001 and attached.

1. Section H/U-4001 shows the (E)(6)4"E(D) just north of the (E)T(NR) however the plans show it north of the (E) SS. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing Topographic and Utility Survey Sheets and Sheet U-1108 show the horizontal location north of the (E) sewer. Section H on Sheet U-4001 shows the subject (E)(6)4"(D) at two locations, one is incorrectly shown. The horizontal location of the subject duct in Section H on Sheet U-4001 should be consistent with location shown in the Existing Topographic and Utility Survey Sheets and Sheet U-1108.

U-0013 **Water Connections at Howard** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref I-3120, U-3116, U-3112

There is a discrepancy in the elevations called out for the 12" water line connections at Howard. The First and Howard connection shows the elevation at 13 on U-3120 and no elevation is provided on Howard. If we were to scale, the elevation should be at 14. Please provide the connection elevation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct the 12"x12"x12" TEE at center line EL 13.0 as shown on Sheet U-3120.

U-0014 **Size of Gas Line on First Street** **Closed** **10/25/2010** **11/08/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Ref U-2003, U-2021 and attached.

The HPG line on U-2003 is 4". The same gas line on U-2021 is shown as 2". What size is the gas line?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

HPG by PG&E on First St. is 4" as shown on Sheet U-2003.

U-0015 **LEED Requirements for RUP work** **Closed** **10/26/2010** **11/09/2010** **11/05/2010** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Daphne Faulkner **Answered By:** Transbay PMPC Guy Hollins

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

RE: Specification 01-81-13 1.1.3B

The specification section referenced provides a drawing which outlines the "LEED Project Limit". On this drawing, the limit line is drawn on Minna Street and Natoma Street and incorporates First Street, Fremont Street and Beale Street where they cross the new building. Is it the intent of this specification section that the RUP work in the areas enclosed are to be incorporated into the LEED program?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is not the intent of this specification section apply LEED requirements to the RUP work.

U-0016 **Street Light Relocation** **Closed** **11/02/2010** **11/16/2010** **11/17/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Plan/Drawing Reference: U-3201

Please identify the PG&E manhole on Second St & Minna, where we are to connect the new conduit for the relocated street light on the west end of Minna St.
The connection manhole depicted on the plans does not appear to be owned by PG&E - the cover is marked "Steam".
Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

11/8/2010
Eric Zagol
Alignment of conduit shall be south of existing NRG Energy steam manhole, adjacent to existing street light conduit as shown, connecting to and intercepting existing street light conduit in PG&E MH E-1319 immediately west of the existing steam manhole. Coordinate connection with PG&E through BLHP and TJPA's representative.

U-0017 **JT Conflict with Basement @ Rickenbacker Rest.** **Closed** **11/09/2010** **11/23/2010** **01/12/2011** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference sheet U-3407.
PG&E has been potholing on the south east corner of Minna @ 2nd St. for a new gas line over the past number of days. We have observed in their potholes that a basement structure for the Rickenbacker Restaurant (123 2nd St.) extends out beyond the property line and under

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

E. Zagol 1/11/11

See revised Joint Trench Plan and Elevation Phase I Plans titled "Revisions - Minna Street 12/27/10" for realignment of Joint Trench.

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the sidewalk, along both Minna and 2nd Street. The basement appears to extend almost up to the roadway curb on 2nd Street and to face of curb or beyond on Minna. The joint trench at its current alignment (on Plan Sheet U-3407) along the south east corner of 2nd & Minna will be in conflict with this basement structure.
Please review and advise.

****

E. Zagol 12/17/10

The Joint Trench as currently shown in Sheet U-3407 is in conflict with the 123 Second Street sidewalk basement between Minna Street stations 0+75 and 0+90.

Separate from the conflict mentioned above, PG&E has requested TJPA to add additional conduits to the Joint Trench.

Revised drawings will be provided that address the following:

Realignment of Joint Trench west of station 2+00, realignment of the sewer west of station 2+25, and revisions to the water line (vertical and hydrant lateral) west of station 1+02 to address the conflict with 123 Second Street sidewalk basement.
Modifications to Joint Trench sections from First Street to Second Street to accommodate PG&E's additional conduits.
Modifications at the future Transit Center stubouts to accommodate PG&E's Joint Trench configuration revisions.
RFI-U0050.
****

E. Zagol 11/18/10

AECOM will attend the planned site visit to 123 Second Street on 11/19/10 to evaluate conflict. We are actively working with PG&E to identify options for the Joint Trench alignment west of STA 1+12 if 123 Second Street basement is confirmed in conflict.

On 11/17/10 PG&E reported at TJPA's weekly PG&E coordination meeting that the preferred realignment option, north of the proposed sewer utilizing existing PG&E MH 1319, was electrically feasible. PG&E has scheduled field crews for the week of 11/29/10 to confirm that there is adequate space in their existing

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manholes to facilitate the preferred option.

Proceed with Joint Trench subsurface investigations and Joint Trench shop drawing preparation in accordance with plans and specifications for the Joint Trench east of STA 1+12 to STA 9+31.32 at First Street.

U-0018 **AWSS caps requirement** **Closed** **11/10/2010** **11/10/2010** **11/24/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please refer to sheets MA-5, MA-8, U-1120, U-1121, see attached.

Please confirm that the AWSS caps shown on sheets MA-5 and MA-8 are required prior to the installation of the new PG&E ductbank (sheet U-2021) on the East side of First St.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

RFI U-0018 to be closed as RFI U-0018.1 was created to address a two part question that arose. RFI U-0018.1 was answered on 11/24/10 and the RFI is marked closed.

U-0018.1 **AWSS Removal Work on First Street - Scope Clarification** **Closed** **11/22/2010** **11/24/2010** **11/24/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** Webcor Construction LP Jeffrey Negley

Co-Author:

REQUEST:

The First Street AWSS cap issue has created a two part question. RFI #U-0018 will remain open to track the sequence of installation regarding installation of the AWSS cap and PG&E trench.

RFI #U-0018.1 addresses scope.
Refer to sheets MA-5, MA-8, U-1120, U-1121, and Guy Hollins email attached.

Per conversations between Guy Hollins, Eric Zagol and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

11/23/2010
Eric Zagol
See attached sketch from Michael Smith (SFDPW BOE) indicating work required to abandon existing 10" AWSS main in First St.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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Michael Smith (mechanical engineer with DPW Bureau of Engineering), please clarify the work involved to install the two AWSS caps on First & Howard and First & Mission St. Also produce a list of material required to complete the work. Provide drawing/ sketch if necessary to clarify scope of work.

U-0019 **Street Light Location** **Closed** **11/10/2010** **11/12/2010** **12/02/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please provide layout for the Street Lights shown to be relocated on sheets U-3201 and U-3202.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Rev. 12/1/10

As dicussed during the site visit on 11/24/10 with Turner, Webcor, Trinet and AECOM to review SFPUC BLHP proposed street light markings, the proposed locations by SFPUC BLHP required a final review by BLHP due to conflicts with the Joint Trench and a FDC. SFPUC BHLP provided additional clarification on street light locations on 12/1/10.

Relocate existing street lights as shown to be relocated on U-3201 to the north side of Minna St. at STA 2+89.25 (center of pole) and at STA 4+12.03 (center of pole). Locate foundation, street light per SFDPW Standard Plans A-33,308 File No. 87,210. Provide guard post in accordance with SFDPW Standard Plan A-33,308 File No. 87,210 for the street light relocated to STA 2+89.25.

****

U-3201 shows two street lights to be relocated from the south side of Minna St. to the North Side of Minna St. Based on informal discussions with Jason Dunne (W/O) proposed street light locations have bee marked by Trinet along Minna St. at the locations shown on U-3201. TJPA's representative (Tuner) is scheduling SFPUC BLHP to inspect the proposed

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locations as marked. Following inspection by SFPUC BLHP, layout dimensions will be provided.

U-3202 shows one street light to be recoated and is to be relocated to an existing traffic signal base as noted in U3202. Remove and salvage traffic post and signal equipment as shown on U-3302.

U-0019.1 **Light Pole at Station 4+12.03: Reroute existing conduit** **Closed** **12/21/2010** **12/31/2010** **02/02/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

Reference: RFI #U-0019, attached picture and sheet U-3201

The streetlight at station 4+12.03 was laid out per the response to RFI #U-0019. When the new location was potholed, a number of existing utilities were discovered. Per inspection with BLHP on 12/20/2010, inspector Robert Kawano requests to re-route existing conduits in the new light pole ftg. location at STN. 4+12.03. Utilities seem to be privately owned by 555 Mission St.. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See RFI Response #U-0019.2

-
12/27/2010 E. Zagol

Unforeseen condition requiring improvements by property owner to relocate privately owned utilities in the City right of
way. TJPA Representative to coordinate with property owner to relocate utilities.

U-0019.2 **Light Pole at Station 4+12.03: Reroute existing conduit** **Closed** **12/21/2010** **12/31/2010** **02/02/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

Question from RFI #U-0019.1

Reference: RFI #U-0019, attached picture and sheet U-3201

The streetlight at station 4+12.03 was laid out per the response to RFI #U-0019. When the new

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Electrical conduit has been relocated by 555 Mission St. property management. Webcor/Obayashi to relocate irrigation conduit to be out of the way of the light pole base location. Coordinate with 555 Mission (Julian Marsh 415-546-6036 or Rob Edlenbos 415-546-6037) to have the irrigation controllers shut off for the work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

location was potholed, a number of existing utilities were discovered. Per inspection with BLHP on 12/20/2010, inspector Robert Kawano requests to re-route existing conduits in the new light pole ftg. location at STN. 4+12.03. Utilities seem to be privately owned by 555 Mission St.. Please advise.

RFI U-0019.1 Response - Eric Zagol - 12/27/2010

Unforeseen condition requiring improvements by property owner to relocate privately owned utilities in the City right of way. TJPA Representative to coordinate with property owner to relocate utilities.

U-0020 **Street Lighting Relocation Plan for Minna** **Closed** **11/15/2010** **11/29/2010** **11/18/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Plan/Drawing Reference: U-3201

We have been informally advised that the Design Engineer and BLHP are considering a revised installation plan for the street lights on Minna. This would include the installation of temporary overhead power lines to feed the relocated street light poles, until such time as the new lights are powered from underground by Trinet.

Here is a sequence as Trinet understands it. Trinet would install the new light pole foundations on the north side of Minna and then relocate the light poles from the south side, per plans. BLHP would then install overhead cable, extending from a pole on 2nd St., to provide power for the lights. During installation of the new foundations, Trinet would install underground conduit from the pole to an adjacent splice box, and then later extend the underground conduit from the splice box to the PG&E power source, as depicted on the plans.

Please clarify the street lighting relocation plan currently under consideration. Also, if the BLHP plan to feed the lights temporarily from overhead, will any changes be required to the foundation and light pole installation plan to accommodate an overhead power feed?

Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

11/18/2010, per Eric Zagol;
At the request of the TJPA, SFPUC BLHP provided temporary overhead power for four street lights on Minna St. The temporary overhead power is shown in the attached sketch RFI-U0020 SKU-01. The temporary overhead street light power allows PG&E to de-activate existing underground electric ductbanks in Minna St. while maintaining power to the existing street lights.

The temporary overhead power to existing street lights can remain active until the two street light relocations in Minna Street are constructed, new underground street light duct, bull boxes and cables are constructed, and new underground power connections have been coordinated with SFPUC BLHP and PG&E.

Since SFPUC BLHP provided temporary power to the existing street lights, the construction sequence of the new street lights with respect to the other works on Minna St. now has more flexibility and is not required prior to performing other works in Minna St.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0021	**M.H. #501 and existing utilties**	**Closed**	**11/17/2010**	**11/22/2010**	**12/02/2010**	**Potentially**	☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Plan/Drawing: U-3021

During potholing activities in 1st St. where Manhole #501 is to be installed Trinet has encountered a number of existing utilities which occupy the same intended space for Manhole #501. Please see the attached sketch for locations and clarifications of these utilities.

Some of these utilities, particularly UT Group #2 and UT Group #5 (reference sketch) are intended to be disconnected by PG&E by November 24th. Please confirm.

UT Group #1, which appears to be owned by ATT is noted on the drawings as to be disconnected and demolished. Please advise as to when this utility is scheduled to be disconnected.

UT Groups #3 and #4 are unidentified and were not included in the USA markings for this area. In order to construct M.H. #501 per the contract drawings these utilities must be removed or relocated. Please advise as to the ownership of these utilities and provide direction on how to proceed.

Note: due to construction, we are requesting that this RFI be answered by 11/22/10 if possible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please provide a mark up of U-3021 indicating the horizontal location of the utilities discovered that correlate to the section sketch provided. Also, please clearly indicate those utilities that were not marked in the field in response to the USA ticket for this excavation work.

****

E. Zagol 11/24/10

In response to items listed above:

1. As of 11/17/10 PG&E has stated that the de-energization of Minna St. will be complete by 11/24/10. In accordance with Specification 024100 1.3 B and 024100 3.5 B obtain in writing a Utility Severance Certificate (or equal) that all connections have been disconnected and the utility is not active.

2. As of 11/17/10 AT&T has stated that contents in AT&T existing ducts along First St. have been terminated with the exception of the new duct from Howard St. to 400 Howard St. property. Confirm that the existing AT&T duct subject of discursion is the the exiting duct from TMH-1887 to Existing Transbay Terminal as shown to be demolished on U-1121. In accordance with Specification 024100 1.3 B and 024100 3.5 B obtain in writing a Utility Severance Certificate (or equal) that all connections have been disconnected and the utility is not active.

3. Groups #3 and #4 utilities are not shown on AECOM's existing utility plans and as noted in the RFI are not included in the USA markings. Pending direction from TJPA's representative in accordance with Specification Section 00 08 10 the suggested first course of action is to notify USA and request a "No Response Follow Up Message". Other suggested actions have been provided to TJPA PMPC for consideration and direction further direction provided by the TJPA's Representative.

****

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
			E. Zagol 11/26/10 RE item #1, See attached email and email attachment from Antonio Chan (PG&E) dated 11/24/10 confirming de-energization of electric ducts in Minna St. and First St.				

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0022	**SFWD crossings at Minna St. and 1st**	**Closed**	**11/17/2010**	**12/01/2010**	**12/03/2010**	**Potentially**	☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Plan/Drawing: U-1002 and attached PDF.

Current USA markings have identified (2) SFWD laterals which are not indicated on the drawings. These are located at approximately STA 8+59 and 9+06 and extend from the main in Minna St., North toward the building of 100 1st. ST. These laterals need to be identified and recorded in order to properly document and construct both the new water line and the new joint trench.

Any additional work associated with these utilities may result in a cost or schedule impact. Please review and provide direction on how we should proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

100 First St. Building Engineer confirmed existing laterals do not provide service to 100 First St.

After new water in Minna Street is constructed, water services and hydrant laterals are connected; main to main connections are made by CDD , and pipes are secure; and the existing water main is abandoned, demolish existing laterals identified at approx. STA 8+59 and 9+06.

DO NOT provide a connection from new water main to existng laterals at approx. STA 8+59 and 9+06.

****

Tap record and meter information provided by SFPUC Customer Service Bureau indicates two water laterals to the 100 First St. property entering the building from First Street approximately 50 feet south of Mission St. Meter boxes located along First St. west sidewalk.

Coordinate with the 100 First St. Building Maintenance, Bradford J. Collins (CAC Real Estate Management Co., Inc.), Tel: 415.243.8803 thru the TJPA's representative to confirm that laterals do not provide service to 100 First St. property from Minna Street.

U-0023	**MOP 1 for de-energizing PG&E at Minna St. between 1st and 2nd St**	**Closed**	**12/01/2010**	**12/02/2010**	**12/02/2010**	**Potentially**	☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

There is a live PG&E cable in conduit (see RFI U-0021) in First Street at intersection of Minna Street.

Per spec section 01.01.42 / AT2-1 MOP for the Utility Shutdown Template, MOP 1 was created and sent via email on 11/29/10 requesting signatures from TJPA and PG&E for verificaiton the conduit is de-energized. Copy

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see attached document. This will be the MOP Form that W/O and its subcontractors are to use for the duration of the project for the deenergization, disconnect, or demolition of any utilities.

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enclosed.

Also per spec section 02 41 00-3 (Vol. 20 Contract # CMCG 08-04 Existing Utilities)
Item A - "Coordinate the shut off or disconnect of existing utilities affecting demolition work with the utility owner at least (7) seven calendar days prior to commencing with the work. The TJPA Representative will coordinate with the utility owner to open/close valves on piping, perform piping disconnects required and perform electric and telecommunication disconnects required. Do not proceed with this phase of work before getting the approval from the TJPA Representative".

Please provide approval.

In addition, per item B of spec section 02 41 00-3, "Prior to removal of any non-governmental (privately owned) ductbank, conduit or gas lines, obtain in writing a Utility Severance Certificate that all connections have been disconnected and the utility is not active".

Please provide a Utility Severance Certificate per item B above.

Sewer work on First Street is scheduled to start 12/1/10. Work cannot proceed until the conduit is de-energized.

Thank you.

U-0024 **EBI demo dwgs and schedule for coordination** **Closed** **12/02/2010** **12/03/2010** **12/08/2010** **Potentially** ☐

From: Webcor Construction LP Jeffrey Negley **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

Due to ongoing demolition work by EBI, W/O is requesting formal transmission of the most current demolition drawings and schedule.

These documents will be used for coordination efforts with

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per our utilities working session yesterday (12/7/10), the demolition drawings being used are the original set issued for construction, dated 1/14/10. C. Traylor will follow up to find out if/when Webcor/Obayashi was issued a copy of this set, or issue a new one for your

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the RUP subcontractors.

Please forward to W/O as soon as possible.

Thank you.

records. The following supplemental documents have been issued since this set:

- BSE drawing package - issued to W/O as Field Order #002 by TJPA (not attached to this RFI)

- Demolition Sequence drawings and manual - (copies attached to this RFI)

U-0025 **Capped 6" Water Main in First St Investigative Trench at Minna St.** **Closed** **12/03/2010** **12/06/2010** **12/08/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order), and attached sketch

Trinet has encountered a capped 6" water main running along the center of the First St. investigative trench at the east end of Minna St. - see attached sketch . Please confirm if the line is active or dead. We cannot excavate this section of trench to the required 8' depth until this water line is removed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contact USA and request SFWD (or SFPUC CDD) contact information.

Contact SFWD (or SFPUC CDD) and request field visit to determine status (active or abandoned) of existing capped 6" water pipe.

U-0026 **Unidentified Facility in First St Invest Trench - 21'-7 from Curb** **Closed** **12/03/2010** **12/06/2010** **12/09/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 21'-7" from face of curb, on the attachment

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Verizon (MFS and MCI) conduits appear to be labeled in section however unknown conduits are indicated either directly below or adjacent to the identified Verizon conduits. How were the Verizon conduits (MFS and MCI) identified? Did Verizon confirm those labeled as Verizon (MCI and MFS) are theirs and the others are unknown? Please clarify. As per Demolition Plans, protect Verizon (MFS and MCI) structures in

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and advise if it needs to be cut and capped.

place until temporary bridge is constructed and Verizon conduits are relocated.

U-0027 **Unidentified Facility in First St Invest Trench - 18'-7 from Curb** **Closed** **12/03/2010** **12/06/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 18'-7" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- Confirm the "unidentified" utility was not marked by a utility in response to USA ticket.

- Confirm that USA No Response Follow-Up procedures (First, Second and Third No Response Follow-Up) were followed in an effort to identify the utility including notifying utilities. Investigation information provided appears to be consistent with plans indicating a PG&E utility.

- Confirm PG&E was contacted via USA process to mark underground facilities.

U-0028 **Unidentified Facility in First St Invest Trench - 14'-7 from Curb** **Closed** **12/03/2010** **12/06/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 14'-7" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- Confirm the "unidentified" utility was not marked by the utility in response to USA ticket.

- Confirm that USA No Response Follow-Up procedures (First, Second and Third No Response Follow-Up) were followed in an effort to identify the utility including notifying utilities. Investigation information provided appears to be consistent with plans indicating a PG&E utility.

- Confirm PG&E was contacted via USA process to mark underground facilities.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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U-0029	**Unidentified Facility in First St Invest Trench - 13'-4" from Curb**	**Closed**	**12/03/2010**	**12/06/2010**	**12/07/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 13'-4" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- Confirm the "unidentified" utility was not marked by the utility in response to USA ticket.

- Confirm that USA follow up procedures were followed in an effort to identify the utility including notifying utilities with no response.

U-0030	**Unidentified Facility in First St Invest Trench - 9'-10" from Curb**	**Closed**	**12/03/2010**	**12/06/2010**	**12/10/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 9'-10" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Verizon (MFS and MCI) conduits appear to be labeled in section however unknown conduits are indicated either directly below or adjacent to the identified Verizon conduits. How were the Verizon conduits (MFS and MCI) identified? Did Verizon confirm those labeled as Verizon (MCI and MFS) are theirs and the others are unknown? Please clarify. As per Demolition Plans, protect Verizon (MFS and MCI) structures in place until temporary bridge is constructed and Verizon conduits are relocated.

U-0031	**Unidentified Facility in First St Invest Trench - 7'-2" from Curb**	**Closed**	**12/03/2010**	**12/06/2010**	**12/07/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 7'-2" from face of curb, on the attachment

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- RFI states "unidentified" utility yet highlighted utility in New Section 1 states "10 AWSS", please clarify question.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

and advise if it needs to be cut and capped.

U-0031.1 **24in Concrete Wall in First St. Invest Trench - 7ft 2in from FOC** **Closed** **12/23/2010** **01/02/2011** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached section and plan sketches, and attached documentation of notifications to USA North

See the highlighted wall on attached plan and section through the investigative trench on the East side of First St.from Stn. 10+00 to 9+70. Per note 4 on sheet U-1007 Trinet requests direction regarding the unidentified 24" concrete wall found 7'-2" from the East face of curb and 10" cover that was encountered but not indicated on the contract plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this wall by 12/27/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown 24" concrete wall to be demolished by Transit Center Project (NIP) within the area impacted by the CDSM shoring wall and mass excavation.

Answered by Eric Zagol
AECOM 12/29/2010

U-0032 **Unidentified Facility in First St Invest Trench - 3'-2" from Curb** **Closed** **12/03/2010** **12/06/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on the east side of First St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 3'-2" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- Confirm the "unidentified" utility was not marked by a utility in response to USA ticket.

- Confirm that USA No Response Follow-Up procedures (First, Second and Third No Response Follow-Up) were followed in an effort to identify the utility including notifying utilities. Investigation information provided appears to be consistent with plans indicating a AT&Y utility at this location.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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- Confirm AT&T was contacted via USA process to mark underground facilities.

U-0032.1 **Unidentified 18" Concrete Wall in First St Invest Trench - 3ft-2in from Curb** **Closed** **12/23/2010** **01/02/2011** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached section and plan sketches, and attached documentation of notifications to USA North

See the highlighted item on attached plan and section through the investigative trench on the East side of First St.from Station 10+00 to 9+70. Per note 4 on sheet U-1007, Trinet requests direction for the demolition of the 18" concrete wall found 3'-2" from the East face of curb and 17.5" covered that was encountered but not indicated on the contract plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/27/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown 18" concrete wall to be demolished by Transit Center Project (NIP) within the area impacted by the CDSM shoring wall and mass excavation.

Answered by Eric Zagol
AECOM 12/29/2010

U-0033 **Unidentified Facility in First St Invest Trench - 5'-8" from Curb** **Closed** **12/03/2010** **12/06/2010** **12/07/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1002 (dated 2010-10-01 - RUP Field Order)

See attached plan and section through the investigative trench on First St. at Minna St.. During Trinet's investigation, an unidentified utility/facility was encountered in the trench. Please identify the highlighted utility, located 5'-8" from face of curb, on the attachment and advise if it needs to be cut and capped.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

- Confirm the "unidentified" utility was not marked by the utility in response to USA ticket.

- Confirm that USA No Response Follow-Up procedures (First, Second and Third No Response Follow-Up) were followed in an effort to identify the utility including notifying utilities. Investigation information provided appears to be consistent with plans indicating traffic signal utility.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

- Confirm SFMTA was contacted via USA process to mark traffic signals and street light underground facilities.

U-0033.1 **Unidentified 2in Pipe in First St Invest Trench - 5ft-8in from Curb** **Closed** **12/23/2010** **01/02/2011** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached section and plan sketches, and attached documentation of notifications to USA North

See attached plan and section through the investigative trench on the East side of First St.from Station 10+00 to 9+70. Per note 4 on sheet U-1007, Trinet requests direction for demolition of the unidentified 2" pipe found 5'-8" from the East face of curb and 15" covered that was encountered but not indicated on the contract plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/27/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm exposed 2" pipe is Traffic Signal conduit as shown in the Plans. Once confirmed demolish in accordance with Demolition Plans.

Answered by Eric Zagol
AECOM 12/29/2010

U-0034 **Station 9+10 New Hydrant Conflict with Sidewalk Basement** **Closed** **12/09/2010** **12/20/2010** **12/13/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-3109 (dated 2010-09-29)

During Trinet's potholing for the Joint trench along the North side of Minna St, a basemenet for building "100 First St." was revealed. The basement wall is located just behind the face of curb and extends to more than 8 feet below finish grade. The extent of the basement is unknown, but assumed to run the length of the "100 First St" property. The basement structure is in conflict with the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The wall encountered appears to be an abandoned side walk basement wall for the 4 story brick building that existed prior to the current 100 First St. building. Approximate width of wall is 2 feet and the outside face is approximately at the face of curb. Neatly cut and remove wall to form a trench. Required trench width and depth per Detail 7 on U-5101. Construct hydrant lateral, riser and hydrant as shown in Detail 2 on Sheet U-5101.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

proposed new fire hydrant installation at Station 9+10.

Please provide layout for the fire hydrant.

U-0035 **Installlation Depth of Storm Drain New Catch Basins** **Closed** **12/09/2010** **12/13/2010** **12/13/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-3023, U-3033 (Detail B), Attached detail from Department of Public Works Buearu of Engineering

Trinet is concerned that the installation depth for many of the new catch basin does not comply with SFDPW Sewer Departent guidelines, specifically regarding access to the traps for the maintenance department. The DPW sewer maintenence crews need to have ready access to the p-trap during flooding emergencies. DPW crews need to be able
to reach the p-trap to, either remove the cleanout cap and release the flow to the culvert pipe (if the trap bottom is plugged), or rod the culvert line through the trap (if the culvert is plugged). To get some clarification of the installation
guidelines, Trinet had informally talked to one of the design engineers at the SF Bureau of Engineerring, Hydraulics
Department. He advised Trinet that new catch basins should be installed with center of trap and discharge piping grade located between 3 and 4 feet below the culvert runs to cross under existing utilities that are in conflict with a direct run to the discharge manhole. Bends should be 22 1/2 degrees where possible as required, and if 45 degree bends must be used we should limit the number to two (2).

Please provide the depth of CB#603 on Freemont Street. To expedite the work in the field, we require an answer by 12/13/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AECOM has confirmed with SFDPW Hydraulics that limited vertical bends in the 10-inch culvert run are acceptable. SFDPW also confirmed that from a maintenance perspective the clean out on the cast iron trap is more accessible at a depth of 3 to 4 feet below ground surface.

Please submit subsurface utility investigation information including top, bottom and size of existing utilities along the 10-inch culvert alignment from catch basin to manhole such that the 10-inch culvert can be engineered and the catch basin depth can be determined to avoid existing and future utilities.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0035.1	**Fremont Street Storm Drain from CB#603 to (E) Manhole**	**Closed**	**12/23/2010**	**01/02/2011**	**12/28/2010**	**Potentially**	☐

From: Webcor Construction LP Jason Dunne **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Refer to Sheet U-3023, U-3033 (detail B) and see RFI #U-0035

Per the response to RFI #U-0035, find attached for your review a drawing showing the proposed alignment for the catch basin (CB# 603) installation and storm drain run to the existing manhole on Fremont St.

Please confirm this proposed alignment is acceptable or provide another solution.

***Please confirm this alignment by 12/27/10 if possible.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Based on a site visit on 12/28/10 with Jason Dunne (W/O) and Victor (Trinet) to review exposed trench alignment for 10-inch culvert it was confirmed that the culvert alignment will clear the new temporary 8-inch water and existing 8-inch water main with adequate separation.

Alignment as shown in the attached drawing is acceptable.

Note, existing 3" HP Gas immediately west of the catch basin is to be abandoned by PG&E per Sheet U-1123 Demolition and Sequence item 2. Coordinate with PG&E to confirm 3" HP Gas is inactive and can be demolished and removed to facilitate construction of the catch basin and
culvert, if required.

Answered by Eric Zagol
AECOM 12/28/2010

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****
****

Please indicate the location of new temporary 8-inch water main in Fremont Street in the section drawing and resubmit for review.

Answered by Eric Zagol
AECOM 12/27/2010

U-0036	**Unidentified 6in Pipe Encountered in Fremont St. - 7ft-9in from FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**12/30/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 28 and documentation of notifications to USA North

See the attached section through the investigative trench

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 6" steel pipe at 7'-9" from the east face of curb and 3'-4" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

Note, 6" steel pipe is in the same alignment as PG&E's excavated manhole 1675. Coordinate with PG&E to see if PG&E has demolished this line.

U-0037 **Unidentified 2in Facility Encountered in Minna St. - 7in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 16 and Documentation of notification to USA North

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U - 1007, Trinet "hereby requests that Webcor "notify TJPA" of the unidentified 2" steel line found 7" from south face of curb and 2'-2" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0038 **Unidentified 4" Facility Encountered in Minna St. - 7ft 4in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/16/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 17 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U - 1007, Trinet "hereby requests that Webcor "notify TJPA"

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed that the existing 4" steel line is an abandoned PG&E conduit connected to the abandoned PG&E manhole 1354 abandoned and de-energized as part of PG&E's Minna Street Stage I de-energization work. Demolish and remove conduit and contents following confirmation of abandonment by PG&E.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

of the unidentified 4" steel line found 7'-4" from north face of curb and 2'-11" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

U-0039 **Unidentified 4" Facility Encountered in Minna St. - 6ft 7in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/16/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 18 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U - 1007, Trinet "hereby requests that Webcor "notify TJPA" of the unidentified 4" steel line found 6'-7" from north face of curb and 2'-3" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm that the existing 4" steel line is an abandoned PG&E conduit connected to the abandoned PG&E manhole 1354 abandoned and de-energized as part of PG&E's Minna Street Stage I de-energization work. Demolish and remove conduit and contents following confirmation of abandonment by PG&E.

U-0040 **Unidentified 4in Facility Encountered in Minna St. - 5ft from FOC** **Closed** **12/15/2010** **12/25/2010** **12/16/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 19 and documentation of notifications to USA North

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing 4" steel conduit is directly in line with abandoned PG&E manhole 1354. Confirm that the existing 4" steel is an abandoned PG&E conduit connected to the abandoned PG&E manhole 1354

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U-1007, Trinet "hereby requests that Webcor "notify TJPA" of the unidentified 4" steel line found 5' from north face of curb and 2'-10" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

abandoned and de-energized as part of PG&E's Minna Street Stage I de-energization work. Demolish and remove conduit and contents following confirmation of abandonment by PG&E.

U-0041 **Unidentified 1in Facility Encountered in Minna St. - 2ft 9in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 20 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U-1007, Trinet "hereby requests that Webcor "notify TJPA" of the unidentified 1" steel line found 2' 9" from north face of curb and 18" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0042 **Unidentified 6in Facility Encountered in Minna St. - 6in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/16/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 21 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U-1007, Trinet "hereby requests that Webcor "notify TJPA" of the unidentified 6" steel line found 6" from north face of curb and 36" to cover. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm with PG&E that the 6" steel line identified is an abandoned PG&E 6" cast iron gas main. Demolish abaondoned 6" cast iron pipe and contents as required to construct the Joint Trench.

U-0043 **Fire Hydrant at St. 5+70 on Minna** **Closed** **12/13/2010** **12/23/2010** **12/14/2010** **Potentially** ☐

From: Webcor Construction LP Mario Saldana Sr. **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

INFORMATION NEEDED
See the attached picture of the proposed fire hydrant location as indicated by drawings on Minna St. at Stn. 5+70. This location is in conflict with an existing driveway

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Due to the close proximity to the existing street light at the suggested location, please construct the hydrant east of the existing driveway at STA 5+87.5.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

apron not shown on drawing #
U-2008. Eric Zagol from AECOM is aware and has seen this issue in the field. NOTE - Due to the 8" water line currently being installed, the location for the "T" section oinstall could be as early as Tuesday the 14th. Please provide direction by 12-14-10 if possible.

We propose to move the fire hydrant location 6¿ West to Stn. 5+64. Please advise.

U-0044 **Unidentified 4ft x 6.5ft Wall Encountered in Minna St. - 1ft from FOC** **Closed** **12/15/2010** **12/25/2010** **12/20/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 22 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U-1007, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 4' x 6.5' wall (bottom was not found) at 1' from north face of curb and 18" to cover that Trinet encountered in the east wall of the trench. Per the same note, Trinet requests "direction on the demolition" of this structure.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolish and remove structure as required to construct Joint Trench.

U-0045 **Unidentified Concrete Wall Encountered in Minna St. - in line with FOC** **Closed** **12/15/2010** **12/25/2010** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference: Sheet U-1007, attached sketch of section from Trinet RFI 23 and documentation of notifications to USA North

See the attached section through the investigative trench at station 2 + 29.68 on Minna St. Per note 4 on sheet U-1007, Trinet hereby requests that Webcor "notify TJPA" of the unidentified concrete wall (bottom was not found) in line with the north face of curb and 30" to cover that Trinet encountered in their trenching. Per the same note, Trinet requests "direction on the demolition" of this structure. Also, this wall may effect Trinet's ability to build the catchbasin at Station 2+13.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

Two part question, responses are as follows:

1. In reference to the exposed concrete wall, TJPA Representative to confirm that the concrete wall exposed is an old sub sidewalk basement backfilled with concrete during construction of the 101 Second St. building.

2. In reference to "this wall may effect Trinet's ability to build the catchbasin at Station 2+13", pothole in accordance with the contract documents at catch basin location to identify any conflicts.

Answered by Eric Zagol
AECOM 12/29/2010

U-0046 | **Unidentified Concrete Wall Encountered in Fremont St. - in line with FOC** | **Closed** | **12/15/2010** | **12/25/2010** | **12/29/2010** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 24 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified concrete structure wall (the bottom was not found) at the east face of curb and 18" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this structure.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown concrete wall to be demolished by Transit Center Project (NIP) within the area impacted by the CDSM shoring wall and mass excavation.

Answered by Eric Zagol
AECOM 12/29/2010

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0047	**Unidentified 3in Pipe Encountered in Fremont St. - 5ft-8in from FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**12/30/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 25 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 3"steel pipe at 5'-8" from the east face of curb and 4'-3" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0048	**Unidentified 3in Pipe Encountered in Fremont St. - 6ft-10in from FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**12/30/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 26 and documentation of notifications to USA North

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 3" steel pipe at 6'-10" from the east face of curb and 18" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0049 | **Unidentified 1in Pipe Encountered in Fremont St. - 6ft-10in from FOC** | **Closed** | **12/15/2010** | **12/25/2010** | **12/30/2010** | **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 27 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 1" steel pipe at 6'-10" from the east face of curb and 4'-3" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0050 **Lower Sewer Laterals on Minna** **Closed** **12/15/2010** **12/25/2010** **01/11/2011** **Potentially** ☐

From: Webcor Construction LP Mario Saldana Sr. **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheets U-3007 & 3008, and Trinet RFI 41

Two of the active sewer service laterals potholed on Minna St.are lower than the new sewer main and will not drain. The details of each issue are as follows:
1. Station 5+05 - Service for #2 Shaw Alley
Top of pipe grade @ FOC for the 6" VCP sewer lateral is 11.37 . The invert elevation is approximately 10.8. The invert elevation of the new 24" sewer main @ Station 5+05

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1/11/11

See revised Sewer Plan and Elevation Phase I Plans titled "Revisions - Minna Street 12/27/10" for revisions to sewer main elevations.

****

12/27/10

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

is approximately 11.4

2. Station 2+10 - Service for Anchor & Hope Restaurant Top of pipe grade @ FOC for the 6" VCP sewer lateral is 13.51. The invert elevation is approximately 12.94. The invert of the new 18" VCP sewer main @ Station 2+10 is approximately 13.4.

Please review these issues and advise. An expedited response is requested by 12/16/10.

Adjust new sewer main in Minna Street to accommodate existing laterals as shown in the "Minna Street Revisions" sheet revision forthcoming addressing both this RFI and RFI U-0017.

U-0051 **Unidentified 6in x 6in Concrete Duct Encountered in Fremont St. - 10ft-1in from FC** **Closed** **12/15/2010** **12/25/2010** **01/01/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 30 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 6in x 6in concrete duct at 10'-1" from the east face of curb and 5' to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

Note, 6"x6" conc. duct is in the same alignment as PG&E's excavated manhole 1675. Coordinate with PG&E to see if PG&E has demolished this line.

U-0052 **Unidentified 12in Pipe Encountered in Fremont St. - 11ft-6in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/20/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 32 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 12" steel pipe at 11'-6" from the east face of curb and 3'-6" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm with PG&E that the 12" steel line identified is an abandoned PG&E 12" cast iron gas main. Following confirmation from PG&E, cut and cap existing abandoned 12" cast iron gas main at the demarcation line shown on U-1123.

U-0053 **Unidentified 3in Pipe Encountered in Fremont St. - 10ft-3in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 31 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 3" steel pipe at 10'-3" from the east face of curb and 3'-10" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

Note, 3" steel pipe is in the same alignment as PG&E's excavated manhole 1675. Coordinate with PG&E to see if PG&E has demolished this line.

U-0054	**Unidentified Pair of 4in Pipes Encountered in Fremont St. - 22ft from FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**12/30/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 33 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified pair of 4" steel pipes at 22' from the west face of curb and 2'-7" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0055	Unidentified 10in Pipe Encountered in Fremont St. - 14ft 3in from FOC	Closed	12/15/2010	12/25/2010	12/20/2010	Potentially ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 34 and documentation of notifications to USA North

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm with PG&E that the 10" steel line identified is an abandoned PG&E 10" cast iron gas main. Following confirmation from PG&E, cut and cap

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 10" steel pipe at 14'-3" from the west face of curb and 2'-11" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

existing abandoned 10" cast iron gas main at the demarcation line shown on U-1123.

U-0056 **Unidentified 4in Pipe Encountered in Fremont St. - 12ft 3in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 35 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 4" steel pipe at 12'-3" from the west face of curb and 2' to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm 4" steel pipe is SFPUC BLHP street light conduit as shown in the Plans. Once confirmed demolish in accordance with the Demolition Plans.

U-0057 **Unidentified 2.5in Pipes Encountered in Fremont St. - 4ft 10in from FOC** **Closed** **12/15/2010** **12/25/2010** **12/30/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 36 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified pair of 2.5" steel pipes at 4'-10" from the west face of curb and 21" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

Note, 2-2.5" steel pipes are in the same alignment as PG&E's excavated manhole 1674. Coordinate with PG&E to see if PG&E has demolished this line.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0058	**Unidentified 4in Pipe Encountered in Fremont St. - 2ft from FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**12/29/2010**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 37 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 4" steel pipe at 2' from the west face of curb and 15" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm 4" steel pipe is SFPUC BLHP street light conduit as shown in the Plans. Once confirmed demolish in accordance with the Demolition Plans.

Answered by Eric Zagol
AECOM 12/29/2010

U-0059 **Unidentified 6in Pipe Encountered in Fremont St. - in line with FOC** **Closed** **12/15/2010** **12/25/2010** **01/03/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 38 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 6" clay pipe at the west face of curb and 4'-7" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Possible existing Transbay Terminal sewer laterals. Coordinate with Existing Terminal & Ramps Demolition Plans Project (Demolition Project) through the TJPA Representative to confirm that the Demolition Project has abandoned sewer laterals. Sewer laterals should be abandoned per SFDPW Standards.

Once confirmed abandoned, cut and plug at the demarcation line shown in the Drawings.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0060	**Unidentified 6in Pipe Encountered in Fremont St. - in line with FOC**	**Closed**	**12/15/2010**	**12/25/2010**	**01/04/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008, attached sketch of section from Trinet RFI 39 and documentation of notifications to USA North

See the attached section through the investigative trench at station 4+40 on Fremont St. Per note 4 on sheet U-1008, Trinet hereby requests that Webcor "notify TJPA" of the unidentified 6" clay pipe in line with the west face of curb and 6'-6" to cover that Trinet encountered in their trenching which was not indicated on the contract plan. Per the same note, Trinet requests "direction on the demolition" of this line.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/16/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Possible existing Transbay Terminal sewer laterals. Coordinate with Existing Terminal & Ramps Demolition Plans Project (Demolition Project) through the TJPA Representative to confirm that the Demolition Project has abandoned sewer laterals. Sewer laterals should be abandoned per SFDPW Standards.

Once confirmed abandoned, cut and plug at the demarcation line shown in the Drawings.

U-0061	**Revised drawing for 8" water line on Minna St. at Second St.**	**Closed**	**12/20/2010**	**12/30/2010**	**12/21/2010**	**Potentially**	☐

From: Webcor Construction LP Mario Saldana Sr. **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-3407

Please provide drawing for the 8" water line and vertical / hydrant installation on Minna St. (reference RFI U-0017 response) west of Station 1+02. Please provide A.S.A.P. as field construction should be at this point by Tuesday pm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see the attached sketch that shows revisions to the water line along Minna Street as a result of the Joint Trench realignment due to the sub sidewalk basement conflict at 133 Second St.

U-0062	**Unidentified 8in Pipe Encountered in Fremont St. - 8ft 3in from FOC**	**Closed**	**12/22/2010**	**01/01/2011**	**01/03/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1008 (dated 2010.09.29) and attached sketch from Trinet

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See attached section through the investigative trench at Station 4+40 on Fremont St. Per note 4, on sheet U-1008 Trinet requests direction on an unidentified 8" steel pipe found 8'-3" from the East face of curb and 4'-4" to cover that was encountered but not indicated on the contract documents.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this pipe by 12/27/10.

EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

Note, 8" steel pipe is in the same alignment as PG&E's excavated manhole 1675. Coordinate with PG&E to see if PG&E has demolished this line.

U-0063 **Unmarked service lateral on Minna St. at Station 3+08** **Closed** **12/22/2010** **01/01/2011** **12/27/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-3107 (dated 2010.09.29)

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown service lateral to vacant lot. Coordinate with SFWD through TJPA Representative to shut off

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

During excavation for the 8" water main along Minna Street, Trinet encountered a 1" Polyethylene service lateral at station 3+08, that extended into the vacant lot on the south side of the street. The service was broken during construction and Trinet has temporarily capped it. The utility was not shown on any utility plans. There is also no new service lateral, or reconnection of an existing, depicted on the new water main drawings at or adjacent to this location. Please advise on what should be done with the service. The repair is only temporary and a permanent reconnection will need to be performed by the SFWD if the service is to be maintained active. If the service is to be de-activated, then Trinet recommends that it be shut off at the connection to the old main.

broken lateral.

Answered by Eric Zagol
AECOM 12/27/2010

U-0064 **Unidentified Facility in First St. Invest Trench - from Stn. 9+70 to 9+59.5** **Closed** **12/22/2010** **01/01/2011** **01/03/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007 and attached sketch of areas plan view

See attached, plan views of the investigative trench on the East side of First St, West of the concrete MUNI median, from Stn. 9+70 to 9+59.5. Per note 4 on sheet U -1007, Trinet requests direction on the 4" Cardboard Pipe found 2'-0" West of the concrete MUNI median face of curb and 3'-6" to cover that was encountered but not indicated on the plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/23/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown unforeseen existing utility condition.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods proposed by the contractor have been exhausted:

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings.

U-0065 **Two Unidentified 4" Pipes in First St. Invest Trench from Stn. 10+00 to 9+70** **Closed** **12/23/2010** **01/02/2011** **12/29/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached sketch of areas in plan and section, attached USA North tickets

See attached plan and section through the investigative trench on the East side of First St.from Stn. 10+00 to 9+70. Per note 4 on sheet U-1007 Trinet requests direction regarding the two 4" concrete and redwood encased pipes found at the East face of curb and down 2'-3" that was encountered but not indicated on the plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this facility by 12/27/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirm 2-4" concrete and redwood encased pipes are the inactive 2-3" AT&T conduits from AT&T manhole TMH1887 to the Existing Transbay Terminal as shown in the Plans. Once confirmed demolish in accordance with the Demolition Plans.

Answered by Eric Zagol
AECOM 12/29/2010

U-0066 **Minna St Station 2+09 - 4" Water Service Lateral Encountered** **Closed** **12/23/2010** **01/02/2011** **12/28/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Refer to Sheet U-3107

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing 4-inch service for 83 Minna Street is indicated in specification 331160 Appendix A. Service is an

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

During the water installation on Minna St we encountered an existing 4" water service lateral at Sta 2+09. The 4" service extends from the old 8" water main to 83 Minna St (Anchor & Hope Restaurant). This is in addition to a 1" service lateral to the same building which we encountered at station 2+09. The contract drawings only show the 1" water lateral service connecting to the new main.

Please advise if the existing 4" service lateral is active and if it must be connected to the new water main. There was no material on site to install a tee in the line, and to avoid delaying the work, the new water main isntallation continued past the 4" service lateral. The recommendation is that if the 4" service line needs to be connected to the new main, work can be performed by SFWD as an additional tie-in.

active fire service to 83 Minna Street and must be connected to the new 8-inch water main.

Furnish and install 8"x8"x4" tee with joint restraint in accordance with the specifications. Furnish and install service 4-inch DIP, fittings and valve. Set 4-inch service and valve elevation to match existing 4-inch service elevation.

Connection from new 4-inch service valve to existing 4-inch service by SFWD.

Answered by Eric Zagol
AECOM 12/28/2010

U-0066.1 **Minna St Station 2+09 - 4in Water Service Lateral Encountered** **Closed** **01/10/2011** **01/20/2011** **01/14/2011** **Potentially** ☐

From: Webcor Construction LP Jason Dunne **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3107 and Trinet RFI 059.1

This is a follow up to the engineer's response to Trinet RFI #59 (RFI#U-0066). Upon further evaluation of the 4" fire service connection at 83 Minna by Tom Farhnam (SFWD Senior Inspector), the water department proposed the attached installation detail for an 8"x4" tee in the 8" main, to be performed by Trinet, and the connection detail to the existing 4" service, to be performed later by the SFWD crew. This change was proposed to avoid conflicting utilities running along the south side of teh new 8" main. AECOM's Design Engineer, Eric Zagol, was advised of the changed design plan proposed by SFWD in the field on 12/28/2010. Please confirm if the attached plan is acceptable and approved for construction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct water serive lateral in accordance with contractor's attached plan and note the following:

1. Provide full joint restraint in accordance with contract documents

2. Provide 4" DI pipe for the section labeled "9" DI NIPPLE"

U-0067 **Buried Manhole in First St. Invest Trench - 15ft 7in from FOC** **Closed** **12/23/2010** **01/02/2011** **12/28/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference: Sheet U-1007, attached section and plan sketches, and attached documentation of notifications to USA North

See the highlighted man hole on attached plan and section through the investigative trench on the East side of First St.from Stn. 10+00 to 9+70. Per note 4 on sheet U-1007 Trinet requests direction regarding the unidentified manhole found 15'-7" from the East face of curb and buried 4'-6" deep that was encountered but not indicated on the contract plans.

Trinet has this plated but would like to backfill the trench as soon as possible. An expedited response is requested with official direction on how to proceed with this wall by 12/27/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Manhole appears to be an abandoned separated sanitary sewer manhole.

Please provide data on utility material (e.g. brick) and condition (e.g. filled with sand or concrete) in accordance with 02630 4.1 G.5 such that the demolition can be determined.

Answered by Eric Zagol
AECOM 12/28/2010

U-0068 **Minna St Water Main Conflict w Abandoned Sewer MH** **Closed** **12/23/2010** **01/02/2011** **12/27/2010** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

See attached drawings adn photos

During the water main installation on Minna St, Trinet encountered what appears to be an old abandoned sewer manhole in the trench line at station 1+15. the structure was not indicated on the drawings and was not discovered untill the pavement asphalt was removed. The sewer manhole is direclty in conflict with the alignment of the new water main. The installation of the watermin cannot proceed furhter untill the manhole is demolished and/ or abandoned.

Per a field walk with Eric Zagol on 12/23/10, the existing MH was confirmed abondoned. Please confirm/ advise the top of the MH will be demolished to allow the installation of the waterline, and the MH will be backfilled with CDF.

****Please provide direction by 12/28/10.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Remove and dispose of existing abandoned separated sanitary sewer system manhole to a depth of 1 foot below bottom of new water main.

2. Plug existing abandoned 8-inch sanitary sewer with concrete per 024100 3.6 A.

3. Backfill abandoned manhole with CDF to an elevation 1 foot below bottom of new water main.

4. Provide 6-inches of bedding material between CDF and bottom of trench bedding per Detail 7 on Sheet U-5101 such that the total depth
of trench bedding crossing the abandoned structure is 1 foot.

Answered by Eric Zagol
AECOM 12/27/2010

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0069	**Street Light CCTV Camera-East Side of Fremont St. @ Stn. 5+45**	**Closed**	**01/05/2011**	**01/15/2011**	**01/14/2011**	**Potentially**	☐

From: Webcor Construction LP Richard Buellesbach **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3302 and Trinet RFI 62

During removal of the light pole arm on the east side of Fremont St. @ Stn. 5+45, Trinet observed that there is a CCTV camera and associated wiring on the light pole. Please advise of the plan for removal of CCTV camera.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1/14/11

Remove and salvage existing CCTV camera as part of the traffic signal equipment removal. Deliver traffic signal equipment and camera to the Traffic Signal Shop Yard in accordance with specification 02 41 00 par. 3.4 C 4.

****

1/12/11

Please clarify how this RFI relates to RFI U-0073 "VOID - reference RFI U-0069"

U-0070	**Subsurface Structures in Conflict with Minna St. AT&T Vault**	**Closed**	**01/10/2011**	**01/20/2011**	**01/12/2011**	**Potentially**	☐

From: Webcor Construction LP Jason Dunne **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-2008 and Trinet RFI 63

During our potholing on Minna St. for the proposed AT&T vault in the sidewalk (Stn. 3+72), we encountered an existing subsurface foundation and slurry shoring wall. The top of the subsurface foundation is at a depth of approximately 4' from the top of the sidewalk and is in conflict with the installation of the proposed AT&T vault. Installation of the proposed AT&T vault in accordance with the plans will require partial demolition of the existing foundation wall encountered. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As determined during a site visit on 1/10/11 with W/O, Turner, AECOM and Tishman Speyer, the exposed wall is an abandoned sidewalk basement wall. Remove and dispose of existing abandoned sidewalk basement wall as required (approx. 1.5 feet in depth) to construct proposed AT&T vault.

U-0071	**Existing fittings at tie in location for Minna St. 8 in. Water Main (Stn. 9+30)**	**Closed**	**01/10/2011**	**01/20/2011**	**01/12/2011**	**Potentially**	☐

From: Webcor Construction LP Richard Buellesbach **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference Sheet U-3109 and Trinet RFI 64

Due to the presence of existing fittings installed in the existing 8 inch water main at our tie in location (Stn. 9+30) at First St. and Minna St. for the new 8 inch water main on Minna St., SFWD inspector Dan Helmnik has requested to extend the limits of the tie in excavation beyond the locations of the existing fittings. This is beyond what would normally be required for a tie in of this nature. Existing conditions were reviewed in the field by W/O, Turner, SFWD, Eric Zagol from Aecom, and Trinet personnel.

Please advise. An expedited response is requested.

Provide labor and equipment to excavate and shore trench for pipes, fittings, and valves as necessary for connections to the existing water mains by SFWD in accordance with U-3100 Note 4 and specification section 33 11 00 par. 3.5.

U-0072 **Fremont St traffic Signal Pole to be removed and salvaged - has Muni Cable attach** **Closed** **01/10/2011** **01/20/2011** **01/18/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Turner Construction Comp Jack Adams

Co-Author:

REQUEST:

Reference Sheet U-3302 and Trinet RFI 65

Per contract, Trinet is required to remove and salvage the existing light pole indicated in the attached drawing. Through observation in the field, the existing light pole has a MUNI cable attached which runs to the intersection of Fremont St. and Mission St.. Based on these findings, should the light pole be removed as indicated? Mario Saldana from W/O was present when this item was observed and issue has been discussed with Eric Zagol from AECOM.

Please advise. An expedited response is requested by 01/12/2011.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

J. Adams 01/18/2011

These are MUNI OCS Poles not Lighting Poles. Both OCS poles along east side of Fremont near 301 Mission Tower are in use by MUNI OCS System. MUNI has designated each OCS pole to hold different guy wires at Fremont and Mission see Demolition drawing Sheet 105 of 137. The poles are to remain and be deleted from Webcor-Obayashi/Trinet scope.

NOTE: Evans Bros Subcontractor Reliance Electric are to correct OCS cables to both of these OCS Poles. Reference Demolition drawing plan sheet 105 of 137. A second cable will be installed at OCS Pole 4030 and the cable will be reinstalled at OCS Pole directly north of Pole 4030 per contract.

****

J. Adams 01/13/2011

The MUNI Overhead Contact System (OCS) Pole in

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

question not light pole. This OCS pole was to have the guy wires relocated to nearby MUNI OCS Pole by the Demolition Contractor in July 2010 during mods to Transbay Terminal MUNI OCS system. Demo drawing plan sheet 105 of 137 shows the guy wires relocated to pole 4030 - this is in EBi scope.

Pole 4030 is shown to remain per Demo drawing above - But, Pole 4030 is shown to be removed per RUP U-3302 .

It should be noted that upon relocation of this OCS guywire the removal of the pole is Webcor-Obayashi scope per drawing U-3302.

****

E. Zagol 01/13/2011

Change in existing conditions. New MUNI guy wire was attached to existing pole at STA 5+45 as part of the Existing Terminal & Ramps Demolition Plans project.

1. Remove and salvage traffic signal equipment per U-3302.

2. Protect in place existing MUNI pole.

****

E. Zagol 01/12/2011

Change in existing conditions. New MUNI guy wire was attached to existing pole at STA 5+45 as part of the Existing Terminal & Ramps Demolition Plans project. Existing Terminal & Ramps Demolition Plans project to remove the MUNI pole at STA 5+60.

1. Remove and salvage traffic signal equipment per U-3302.

2. Protect in place existing MUNI pole at STA 5+60.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0073	**Fremont St. Light Pole and Muni Cables to be protected - indicated light pole has r**	**Closed**	**01/10/2011**	**01/20/2011**	**01/10/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Kevin Chiu **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

Reference Sheet U-3302 Traffic Signal E and Trinet RFI 66

As indicated on the plans, Trinet is required to "Remove and Salvage Traffic Signal Equipment. Protect Pole and Muni Cables in Place." Conditions were reviewed in the field and there is no Muni cable attached to the (E) light pole.

Mario Saldana from W/O has observed there is a CCTV cable attached to the pole not mentioned in Trinet RFI 66 and requests clarification on ownership and status of the CCTV line. This issue has been discussed with Eric Zagol from AECOM.

Please advise. An expedited response is requested by 01/12/2011.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware.

U-0074	**Unidentified 9in Concrete Wall in First St Invest Trench - 10ft-5in west of Conc. Mu**	**Closed**	**01/10/2011**	**01/20/2011**	**01/25/2011**	**Potentially**	☐

From: Webcor Construction LP Jason Dunne **To:** Turner Construction Compan Kevin Chiu **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-1007 Traffic Signal E and Trinet RFI 051

See attached, plan views of the investigative trench on the east side of First St., west of the concrete Muni median, from Stn. 9+70 to 9+59.5. Per note 4 of sheet U-1007, Trinet requests that Webcor "notify TJPA" of the unidentified 9" concrete wall at 10ft-5in west of the concrete Muni median face of curb and 3ft-6in cover that Trinet encountered "not indicated on plans". Per same note, Trinet requests "direction on the demolition" of this structure. Trinet has plated but would like to backfill the trench as soon as possible. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unknown concrete wall to be demolished by Transit Center Project (NIP) within the area impacted by the CDSM shoring wall and mass excavation.

U-0075	**Water Main Connection at 2nd St and Minna St - expose new line for SFWD**	**Closed**	**01/11/2011**	**01/21/2011**	**01/12/2011**	**Potentially**	☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Mario Saldana **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3107 and attached photos

At the intersection of 2nd St and Minna St, there is an existing 2in gas line running directly on top and next to the existing 8in main to be tied into. SFWD cannot make the Tee connection due to the bells of the fittings with the 2in gas line so close.

The end of the new line installed by Trinet will need to be exposed about 2ft for SFWD to move the end of the line by 1ft east so that SFWD can make the connection without moving the gas line. This will require extra work for Trinet to expose the new line for SFWD. Eric Zangol from AECOM and Dan Helminiak from SFWD were present during the discussion of this issue.

Please provide direction as soon as possible as this will impact the chlorination and tie-in schedule.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Provide labor and equipment to excavate and shore trench for pipes, fittings, and valves as necessary for connections to the existing water mains by SFWD in accordance with U-3100 Note 4 and specification section 33 11 00 par. 3.5.

U-0076 **Water Main Connection at 2nd St and Minna St - demo/excavate per SFWD** **Closed** **01/11/2011** **01/21/2011** **01/14/2011** **Potentially** ☐

From: Webcor Construction LP Mario Saldana **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3107 and attached photos

At the intersection of 2nd St and Minna St, the new 8in water main is to be connected to an existing 6in water line. The new 8in line installed by Trinet is above and below existing utilities, and SFWD requires more demo/excavation to make the connection.

This will require extra work for Trinet to demo/excavate per SFWD. Inspector Dan Helminiak is scheduling the SFWD to come back and measure this afternoon (01/11/2011). Eric Zangol from AECOM was also present during the discussion of this issue.

Please provide direction as soon as possible as this will impact the chlorination and tie-in schedule.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Provide labor and equipment to excavate and shore trench for pipes, fittings, and valves as necessary for connections to the existing water mains by SFWD in accordance with U-3100 Note 4 and specification section 33 11 00 par. 3.5.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0077	**Fire Hydrant Installation at Minna St Stn. 0+90**	**Closed**	**01/12/2011**	**01/22/2011**	**01/14/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3107

With reference to the fire hydrant at Minna St. Stn. 0+90, (northeast corner of Second St. and Minna St.) General Note #5 on sheet U-3107 directs Trinet to "replace in place existing fire hydrant."

Per on site field discussions with Eric Zagol from AECOM, Robert Friend from Trinet and Mario Saldana from W/O, it was determined that the existing hydrant would remain in place until after the new water main connections are performed by CDD crews. After which the existing hydrant will be removed and new hydrant and lateral piping will be installed and tested.

Please confirm if this is acceptable. An expedited response is requested.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed on site with Daniel Helminiak (SFPUC Inspector) and those mentioned above, the proposed construction sequencing of the fire hydrant at Minna St. STA 0+90 is acceptable.

Coordinate with Daniel Helminiak (or assigned SFPUC Inspector) and the SFWD to ensure the fire hydrant is properly decommissioned by SFWD and SFFD following main connections by SFWD and prior to abandonment of the existing main in Minna Street by SFWD prior to fire hydrant installation by Trinet. Coordinate with SFPUC inspector to ensure SFWD and SFFD installs a black hydrant "donut" on the existing fire hydrant and new fire hydrant prior to the new fire hydrant being placed in service. Coordinate the removal of the "donut" once new fire hydrant is in service.

U-0078	**6in and 4in Service Laterals to 2 Shaw Alley**	**Closed**	**01/12/2011**	**01/22/2011**	**01/14/2011**	**Potentially**	☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-2008

The existing 4" water service found at Stn. 5+37 has been confirmed abandoned by SFWD personnel through on site investigations. Since the service is determined to be inactive, Trinet intends to not provide service from the new main for this 4" service as discussed in the field, with Eric Zagol from AECOM, Mario Saldana from W/O, Dan Helminick from SFWD and Robert Friend from Trinet. In addition, Dan Helmnick from SFWD requested to have the service tee installed in the new 8" main which was to provide service for this 4" lateral removed and straight pipe installed. Please confirm if this is acceptable.

The 6" water service lateral found at Stn. 5+30 has been confirmed as an active fire service to 2 Shaw Alley by SFWD personnel through on site investigations. Trinet

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing 4" water service at STA 5+37. Subsurface utility investigations should have been performed and submitted prior to installation of water main to determine status of existing lateral in accordance with U-3108 General Note No. 3. It is acceptable to remove the 8"x8"x4" tee installed and replace with straight pipe per the request of SFPUC SFWD inspector.

Provide 6" water service later at STA 5+30 per contract documents.

AECOM suggests that there is no change in contract price to perform this work.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

intends to provide service from the new water main for this 6" service as discussed in the field with Eric Zangol from AECOM, Mario Saldana from W/O, Dan Helminiak from SFWD and Robert Friend from Trinet.

An expedited response is requested.

U-0079 **Fremont St Temp Water Line Installed over AT&T Duct** **Closed** **01/17/2011** **01/27/2011** **01/19/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3123 and attached detail

During Trinet's installation of the temporary water line in Fremont St., Trinet encountered an existing AT&T duct that was in direct conflict with the temporary water line. Trinet was directed by Eugene Chu of SFWD/SFPUC to run the temporary water line over the existing AT&T duct using 45 degree bends. This resulted in less cover for the piping than what is required by the Water Department. Due to the lack of cover, Trinet was directed to install a 1/2in steel plate beneath the concrete base along the trench as depicted in the attached detail. The plate was approximately 2ft wide by 6ft long and extended to the limits of the installed 45 degree bends.
Please provide confirmation that this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

It is AECOM's understanding that Trinet encounter an existing PG&E electrical duct (4-4") crossing the water alignment feeding 301 Mission property and not an AT&T duct as referenced above. It is also AECOM's understanding that Trinet encountered an existing PG&E electrical duct (8-3") parallel to the water alignment which is ultimately to be abandoned by PG&E and demolished by Trinet. Both PG&E ducts are shown in the plans. Per sequencing shown on U-1123, the water line should be constructed after PG&E completes their work on Fremont Street.

Given the fact that the PG&E duct parallel (8-3") has not been abandoned by PG&E, and given the fact the option to go under the existing 4-4" PG&E duct per plans is not feasible because the existing 8-3" PG&E duct is not demolished, and given the fact that the new water main is a temporary condition, the above mentioned installation proposal is acceptable.

AECOM suggests no additional cost to contract price to perform this work.

U-0080 **Proposed Design Change for MH #501** **Closed** **01/17/2011** **01/27/2011** **01/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference Sheet U-2021 and attached drawings

Trinet proposes to change the design of sewer manhole #501 from a Modified Box Manhole (per SF Standard Plan #87,184) to a Precast Concrete Manhole (per SF Standard Plan #87,181 - see attached drawing). The proposal includes the installation of a temporary 24" PVC pipe stub, extending south from the manhole and connected to the brick sewer per SF Standard Plan #87,197.

The proposed manhole design will facilitate construction around the many utilities identified in the excavation - see RFI # U-0021 (Trinet RFI 04). It is also the preferred manhole design for 24in pipe per the SF Standard Drawings, especially since the brick sewer on the south side will later be abandoned and plugged (in the manhole) by the owner. This plan will also facilitate the later abandonment of the outlet to the south, as the owner will just have to plug the 24in outlet pipe and not a 3x5 brick sewer.

Please consider. An expedited response is requested.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

CCSF DPW Standard Plan #87,181 referenced specifies a 4 ft diameter precast concrete manhole. Three (3) 24-inch pipes connecting to a 4 ft diameter manhole at invert elevation as proposed by contractor may yield an unstable structure and is not approved. A larger diameter precast concrete manhole may be acceptable however the alternative would need to be submitted as a substitution for CCSF SFDPW approval.

As per the response to RFI U-0021, please provide a mark up of U-3021 indicating the size, and horizontal and vertical location of the utilities identified in the excavation for review.

U-0080.1	Proposed Design Change for MH #501	Closed	02/09/2011	02/18/2011	02/22/2011	Potentially ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Sheet U-2021, RFI #U-0080, and attached drawings

In response to the Engineer's concerns with the number and size of pipes in Trinet's original revised detail for MH 501 (RFI#U-0080), Trinet has changed their proposed installation drawing to include a 5' I.D. cast-in-place MH base. The lower precast section of the MH will be 5' I.D., with a precast reducer section transitioning from 60" to 48" I.D. placed above. Attached is the revised drawing for MH 501 and shop drawings for the precast MH sections. The design was discussed with Cliff Wong from the SF Bureau of Engineering, Hydraulics Department, and he did not have a problem with a 5' I.D. manhole.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

02/22/2011 - Kevin Chiu

A Change Request (CR) may be issued for the accepted substitution of the 5-foot diameter precast concrete manhole in lieu of the cast in place Modified Box Manhole.

02/18/2011 - Eric Zagol

The proposed design change for sewer manhole #501 from a Modified Box Manhole per SFDPW Standard

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Trinet requests an expedited response.

Plan #87,184 included in the contract documents to a 5-foot diameter precast concrete manhole with a temporary 24¿ PVC pipe connection to the existing 3¿x5¿ brick sewer per SFDPW Standard Plan #87,197 is acceptable.

Provide flexible pipe connections to the 5-foot diameter precast concrete manhole as shown in SFDPW Standard Plan #87,181.

As per the response to RFI U-0080 and U-0021, please provide a markup of U-3021 indicating the size, and horizontal and vertical location of the utilities identified in conflict for review. This request is now 7 weeks outstanding.

AECOM suggests a cost credit for the substitution of the 5-foot diameter precast concrete manhole for the larger cast in place Modified Box Manhole per contract documents.

U-0081 | **Water Main Alignment - Howard St STA18+72 and STA19+98** | **Closed** | **01/19/2011** | **01/28/2011** | **01/24/2011** | **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3119 and attached drawing

Please confirm that it is acceptable for M Squared to install the new 12in water line in a straight line as sketched on the attachment. Contract Drawings show the pipe offsetting between Sta 18+72 and Sta 19+98.
Due to existing utilities discovered in potholes the 12in line will be installed 18ft from centerline.

Also, please confirm the elevations of the water line can be raised dependant on the depths of the existing utilities

Also, the referenced drawing has a discrepancy shown between the 12in water line bend station called out and the location shown in plan view. Please confirm that the first 45degree bend is located at 18+72, and not 18+27.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

1. Contract Drawings indicate an offset to avoid a bus island, as shown on the plans, that was to be constructed as part of the Transbay Temporary Terminal Project. AECOM received confirmation from Philip Sandri TJPA/PMPC that the bus island was deleted from the Transbay Terminal Project. It is acceptable to eliminate the offset and construct water main between STA 18+72 and STA 19+98 at 18ft from centerline.

2. Elevations of the water line can be raised dependant on the depth of the existing utilities. Minimum depth of cover shall be 18-inches below the bottom of the concrete base pavement section per DPW Order No. 176,707 or 28" which ever is greater.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

3. 45 degree at STA 18+72. 45 degree bend no longer required due to response provided in item 1 above.

U-0082 **Sewer System Quality Assurance Clarification** **Closed** **01/19/2011** **01/29/2011** **01/21/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

Reference Specifications Section 33 31 10, 1.4.E

Please clarify if TJPA or DPW is going to complete the inspection of the pipe as described in the referenced specification section.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

For general materials, please follow the specification requirements regarding delivered materials in 01 16 00 1.6D.

For materials falling under specification section 33 31 31, section 1.4C determines that all piping is SUBJECT to inspection by TJPA and/or DPW. This means that all piping is to be made available upon delivery if TJPA/DPW deems it is necessary to inspect the material. Contractor to inform TJPA of all deliveries and assure the storage facility is accessible. TJPA will inform contractor if material will be inspected prior to installation. When TJPA determines that additional labor is needed to move materials around for inspection, please reference 1.4E, which states that contractor is to furnish labor as needed to assist TJPA with this effort.

There is no ¿HOLD POINT¿ for TJPA or SFWD to inspect materials at manufacturer or upon delivery. TJPA/DPW intends to inspect the materials deliveries of each subcontractor until such time as a confidence level is built that subcontractor and W/O are ensuring the proper amount of quality control through their own material inspections.

Per specification Section 01 14 00 1.4, W/O shall verify all dimensions in the field and shall check all field conditions continuously during construction, including materials. Any inspection of materials by TJPA, DPW, or any other agency does not alleviate the subcontractor or W/O of the responsibility of

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performing your own quality assurance measures, or constitute an acceptance of materials. Ultimately, it is the responsibility of the subcontractor and W/O to ensure the materials used for the project meet the contractual requirements set forth in the drawings and specifications.

U-0083 **Water Main Alignment on Howard at Beale** **Closed** **01/19/2011** **01/29/2011** **01/20/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3118

Potholes on Beale Street at Sta 14+00, Sta 14+90 and Sta 16+25 reveal a 6in steel line that is unmarked and not shown on contract drawings. The line is 18ft south of the Howard St centerline. This is the proposed alignment for the new 12in water main. The pothole at Sta 14+00 also reveals a 3in steel conduit which is 16ft south of the Howard St centerline. Also there is a 6ft x 6ft wooden telecom duct bank that runs east to west on Howard Street at 15ft south of the Howard Street centerline. This location offers the closest window for the new 12in water line to the original alignment shown in the contract drawings.

This would require the removal of the wooden duct bank and the removal of the abandoned manhole shown on U-3118 (Sta 14+96 ¿ 15ft from Howard St centerline)

Please confirm the alignment of the new 12in water main.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Existing 6-inch steel pipe appears to be a 6-inch cast iron abandoned PG&E gas main. Confirm the "6ft x 6ft wooden telecom duct bank" is a 6-inch x 6-inch wooden duct bank and is abandoned.

Refer to RFI # U-0083.1

U-0083.1 **Water Main Alignment on Howard at Beale** **Closed** **01/24/2011** **02/03/2011** **01/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared has confirmed that the wooden duct bank is a

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct 12-inch water main at the location

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

6inch x 6 inch wooden duct bank and is abandoned.

Please direct M Squared on how to proceed.

****
Question from U-0083:

Reference Sheet U-3118

Potholes on Beale Street at Sta 14+00, Sta 14+90 and Sta 16+25 reveal a 6in steel line that is unmarked and not shown on contract drawings. The line is 18ft south of the Howard St centerline. This is the proposed alignment for the new 12in water main. The pothole at Sta 14+00 also reveals a 3in steel conduit which is 16ft south of the Howard St centerline. Also there is a 6in x 6in wooden telecom duct bank that runs east to west on Howard Street at 15ft south of the Howard Street centerline. This location offers the closest window for the new 12in water line to the original alignment shown in the contract drawings.

This would require the removal of the wooden duct bank and the removal of the abandoned manhole shown on U-3118 (Sta 14+96 15ft from Howard St centerline)

Please confirm the alignment of the new 12in water main.

proposed; 15 ft south of Howard Street centerline. Remove and dispose of abandoned wooden duct bank and abandoned manhole as required to construct new 12-inch water main.

Refer to response provided for RFI U-0083.

U-0084 **Water Main Alignment on Beale Street** **Closed** **01/21/2011** **01/31/2011** **01/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3124

M Squared potholed at Sta 1+10 on Beale Street. We discovered that the 10in High pressure water line is 9ft-5in from the FOC. The existing 12in water line is 14ft-8in from the FOC. The 10in High Pressure line is closer to the FOC that shown on contract drawings. This now means that there is a larger window between the 10in high pressure water and the existing 12in water main.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contract drawings show existing 10-inch HPW (AWSS) at 9ft-7in from FOC. Contract drawings show existing 12-inch water line at 13 ft-11in from FOC.

Please clarify if dimensions provided by Contractor are to centerline of pipe.

Please provide depth to centerline of the existing 10-inch HPW (AWSS) potholed.

Webcor/Obayashi Joint Venture

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M Squared would like to install the new 12in water line at 12ft-3in from center line of the pipe to the FOC.
This would mean the new 12in water line would be outside the parking strip and the parking strip would stay in tact.
SFWD would also prefer it outside the parking strip for maintenance purposes.

Please confirm that it is acceptable to install the new 12in water line at 12ft-3in from FOC, going from Sta 0+60 to Sta 1+90.

Contractor's proposed location at 12ft-3in from FOC is in conflict with proposed Beale St. sewer main.

Following receipt of information requested, AECOM will evaluate if water line can be moved west of parking strip.

U-0084.1 **Water Main Alignment on Beale Street** **Closed** **02/18/2011** **02/28/2011** **02/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3124 and RFI #U-0084

In response to the Engineer's questions, M Square has noted the following:
- Yes, the dimensions provided are to centerline of the pipe
- Depth to centerline of existing 10-inch AWSS is 72-inches

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In reference RFI U-0084, it is not acceptable to install the new 12in water line at 12ft-3in from FOC, going from Sta 0+60 to Sta 1+90. As discussed during a site meeting with Noel M. (M2) and Mario S. (Webcor) on 2/11/11, construct 12-inch water line as shown on U-3124. Restore parking strip per Contract Documents.

U-0085 **AT&T Duct Bank on Beale at STA 6+00** **Closed** **01/21/2011** **01/31/2011** **01/27/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3125 and attached sketch

The existing 4no. 4in AT&T lines on Beale Street at Sta 6+10 are not as shown on the contract drawings. See

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please proceed as per AT&T's suggestion.

Please coordinate with AT&T's representative Huan Hunynh and field representative Dave Olson for an

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

attached sketch.
Contract drawings show the conduit crossing M Squared's trench for 6 or 7 feet, however the duct bank is in the trench for 37 feet due to the alignment and width of the duct bank. The conduits are covered with a 2 foot wide concrete cap and appear in the trench for the new 12in water main at Sta 6+12 before leaving the trench at Sta 5+75. M Sqaured cannot lay the pipe on top of the concrete cap as the pipe will not have the required coverage.
Due to this M Squared is unable to install the new 12in water as shown. Juan with AT&T advised that M Squared remove the concrete cap from the conduits to allow for excavation of this portion of trench. With the cap removed it is more likely that the pipe will have the necessary minimum coverage.

Please confirm that this is how M Squared is to proceed. An expedited reponse is requested.

onsite inspection by AT&T of the affected AT&T conduits prior to backfill.

Confirm minimum cover of 30-inches or 18-inches below concrete pavement base which ever is greater, is maintained.

Provide distance between top of water main and bottom of AT&T conduits for review.

U-0086 **Concrete Slab & Rail Ties at Howard STA 13+60** **Closed** **01/24/2011** **02/03/2011** **01/25/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3117 and attached sketch

M Squared potholed at Howard Sta 13+60. The pothole revealed a 15in thick concrete slab which is in conflict with the proposed alignment of the new 12in water line.
M Squared broke out a cross section of the slab and found nothing in it. There was also nothing underneath the slab for 5.5 feet. The southern edge of the slab is 4 feet north of the Howard Street center line. M Squared also discovered 6inch x 8inch x 4foot-6inch wooden rail ties.

If M Squared has to remove the concrete slab to install the water line at the alignment shown there is a danger that the MFS (fiber optic) conduits will be damaged as these conduits sit on top of the slab.

Breaking off an 18in section of the concrete slab and also

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed during a site visit on 1/25/11 with Noel (M Squared) and Mario S. (W/O) the Contractor's proposed alignment of 18-inches south of alignment per Plans is in conflict with the existing sewer (limited separation).

As discussed, pothole along Howard St. between Fremont St. and First St. to determine if 15-inch concrete slab is a local condition at the intersection of Howard and Fremont streets or if the slab extends to First St.

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a section of the rail ties would allow M Squared to excavate and install the new water pipe, while keeping away from the MFS conduits and not damaging them. However this will be time consuming.

An alternative option is to move the trench for the new 12in water pipe 18in south and just remove the wooden rail ties (as shown in sketch).

Mario S. from W/O and Eric Z. from AECOM were present during the discussion of this issue with M Squared in the field.

Please direct M Squared on how to proceed with the water line installation. An expedited response is requested

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U-0086.1 **Concrete Slab & Rail Ties at Howard STA 13+60** **Closed** **02/03/2011** **02/14/2011** **02/04/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

As discussed at the meeting on Friday, 01/28/2011 between Noel (M2), Eric (AECOM) and Mario (Webcor) - due to existing utilities and the presence of the concrete slab and rail ties found in the additional potholing that was requested (Ref. Response to RFI U-0086), the new 12in water main is to be installed 5ft from the northern FOC on Howard Street Sta 12+60 to Sta 9+50.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. See attached sketches SK-U-0003 and SK-U-0004 for the revised alignment.

U-0087 **Compact Sewer Backfill Sand by Jetting** **Closed** **01/27/2011** **02/06/2011** **02/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference San Francisco Standard Specification Section 703.08, attached

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jetting in accordance with CCSF DPW Standard Specification Section 703.08 of the backfill layers

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Trinet requests authorization from the Engineer to compact the sewer trench backfill sand by jetting in accordance with the San Francisco Standard Specification Section 703.08.

The native material along Minna, which Trinet is re-using for trench backfill, is a clean well grade dune sand. Trinet believes jetting is an ideal method of compaction for this type of material. It is also an effective means of compacting the sand around the top and sides of the pipe without disturbing the pipe, and backfilling any voids left from removal of the shoring or that might have formed behind the shoring. This method of compaction is commonly utilized in San Francisco for sewer projects in similar ground conditions.

An expedited response is requested.

above the sand backfill (pipe zone) as specified in CCSF DPW Standard Specification Section 703.06 for sewer installations is acceptable.

Contractor shall determine that jetting will not result in damage to sewers, adjacent structures, or cause adjacent materials to be softened. Any resulting damage shall be repaired at the Contractors expense.

Meet compaction requirements for each horizontal lift. If compaction requirements are not met, discontinue the use of jetting.

Notify TJPA's geotechnical engineer through the TJPA representative in advance of jetting to coordinate on-site observation of jetting and compaction testing.

U-0088 **Minna St 18in Sewer Conflict with PG&E MH#1355 at STA 1+77** **Closed** **01/28/2011** **02/07/2011** **03/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-2007 and attached drawings

During layout for the installation of the new 18in Sewer Main on Minna St., Trinet observed that the alignment of the 18in Sewer Main is in conflict with existing PG&E MH #1355 at STA 1+77.50,
which is to remain in place. The center line of the new sewer main is 0.10ft north of the outside edge of the manhole wall, as depicted in the attached drawing. The north side wall of the manhole is constructed on top of the existing 3ft x 5ft brick sewer. The brick sewer structure extends approximately 16in into the vault along its entire length. The brick sewer therefore cannot be demolished without undermining the north wall of the electric vault. Eric Z. of AECOM was notified of this issue via phone call on 01/21/2011.

Please advise:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

==UPDATE== 3/24/11
See revised drawings Minna Street Revisions dated 3/16/11 assoicated with ASI#003.

Webcor/Obayashi Joint Venture

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1. How should Trinet proceed with the installation of the new 18in VCP Sewer at this location?
2. How should Trinet proceed with the demolition ofthe existing 3ft x 5ft brick sewer?

U-0089 **TJPA/DPW Inspection of Materials** **Closed** **01/31/2011** **02/10/2011** **02/02/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Bob Garcia **To:** Turner Construction Compan Kevin Chiu **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST:

Ref. response to RFI U-0082, specs 331100, 011600:

In response to RFI U-0082 stated "TJPA/DPW intends to inspect the material deliveries of each subcontractor..."

Does the TJPA/DPW or Turner have an established material inspection protocol in place to allow W/O and the trade subcontractors to verify and document that the materials have been inspected by TJPA/DPW or Turner per the above referenced specifications?

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Procedure for material inspections will be finalized as part of the QA/QC manual, to be issued by TJPA.

U-0090 **46 Minna St 6in Fire Service Connection** **Closed** **02/01/2011** **02/11/2011** **02/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Sheet U-3108 and attached sketch and photos

The original plan for connection of the 6in Fire Service Lateral @ 46 Minna St. was to leave the existing 6in gate valve (which is located at FOC) in place and connect the new 6in fire line to the downstream side of the old valve (See attached photo and sketch). This plan was proposed by SFWD inspectors, Tom Farhnam and Dan Helminiak, at a field meeting on 12/28/10. On Friday 1/28/11 the SFWD, plumbers when taking measurements for the tie-in, proposed a different plan. They want to extend the new 6in fire line beyond the curb and into the basement, and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

VOID.

See RFI U-0093, 46 Minna 6in FS Water & 1in Copper Water Service Lateral at STA 5+17 Tie-In.

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connect to the homeowners fire line inside the basement (under the sidewalk).

Note: This will require coordination with building owner to put a hole through their foundation. Layout and a detail would need to be provided for the wall penetration, as well a detail to plug the hole where the existing water line is entering the basement.

Please provide direction on how to proceed.

U-0091 **SSMH #301 Located in Crosswalk at Natoma STA 0+81.72** **Closed** **02/01/2011** **02/11/2011** **02/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3010

SSMH #301 is shown to be located in the crosswalk at Sta 0+81.72.

Please confirm that it is to be located in the pedestrian crosswalk.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct sewer manhole #301 at the location shown on U-3010. An ASI for a revised SFDPW Standard manhole cover (ADA compliant) is forthcoming.

U-0092 **AWSS Schedule Restrictions** **Closed** **02/02/2011** **02/12/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP Richard Buellesbach **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Webcor/Obayashi has received Bid Addendum #1 for the TG04.2R bid. As part of this addendum, note number 8 under "General Notes" on sheet U-0008 is deleted. This note had previously placed a constraint on the AWSS construction schedule that the Mission Street work must be complete prior to cutting both the Beale Street and the 1st Street lines. It was acceptable to abandon one or the other prior to the Mission Street work but not both.

Based on the deletion of this note, it is our understanding

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

02/11/2011 - Richard Buellesbach Email to Michelle Smith & Kevin Chiu - The received response to RFI U-0092 is not complete. We require a final resolution for the following language from the RFI response:
"TJPA is currently coordinating with SFPUC to determine when AWSS improvements, other than the improvements required to abandon existing AWSS mains on First and Beale streets, are required to be complete."
Please be sure that this RFI remains open in

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that there is no schedule constraint on any of the AWSS system modifications other than the cutting & capping proceedures at 1st Street and Beale Street which are required for construction of the TTC Building. Please confirm.

Constructware.

02/10/2011 - Eric Zagol - The construction sequence constraint has been removed per GENERAL NOTE 8 on U-0008 (rev. 2 01/31/11) and as detailed in SFDPW BOE AWSS drawings (rev. 1 01/31/11) MA-0, MA-5, MA-6, MA-8, MA-10, MA-11 and MA-19.

TJPA is currently coordinating with SFPUC to determine when AWSS improvements, other than the improvements required to abandon existing AWSS mains on First and Beale streets, are required to be complete.

U-0093 | **46 Minna 6in FS Water & 1in Copper Water Service Lateral at STA 5+17 Tie-In** | **Closed** | **02/03/2011** | **02/13/2011** | **02/07/2011** | **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3108, attached sketches, and material information sheets

At 11:30am on 2/2/2011, Michelle Smith (Turner), Eric Zagol (AECOM), Guy Hollins (TJPA), Rick Bowling (46 Minna Property Manager), Dan Helminiak (SFWD Inspector), SFWD water department crew, Robert Friend (Trinet), Jason Dunne (Webcor Obayashi), and Mario Saldana (Webcor Obayashi) met to discuss the 6in Fire Service Lateral and 1in Water Service Lateral for the 46 Minna building.

SFWD has proposed the new tie-in pipe configuration.
1. New 6in Fire Service Lateral Tie-in at 46 Minna St (See Attachment A)
- Old existing fire service lateral is to be cut out of the existing water main up to the gate valve as shown in the sketch, and replaced with straight pipe. A new 10in hole is to be core drilled into the existing basement wall 22in east of the existing service lateral to incorporate the new 6in fire service lateral. SFWD will run the new 6in fire service

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AECOM has coordinated with SFPUC Engineering (Chi Yu, Division Manager) and SFPUC inspector (Eugene Shu) and the direction agreed to is as follows:

6-inch Fire Service Renewal -

1. Coordinate with SFWD for the shutdown of the existing 6-inch fire water service. Shutdown by SFWD. SFWD to coordinate shutdown with SFFD.
2. Neatly remove existing fill material between the existing pipe and wall penetration to dislodge and free the existing pipe such that it can be removed by SFWD.
3. SFWD to cut and remove existing pipe.
4. Remove excess fill material to create flat even surface for link seal type pipe sleeve.
5. SFWD to install and connect new service.
6. Restore wall per SK-U-0005 attached.

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lateral through the hole and Trinet is to provide Link Seals (see attached material information sheets) to seal the space between the new pipe and wall hole.

2. New 1in Copper Service Lateral Tie-in at STA 5+17 (See Attachment B)
- Old existing 1in plastic poly pipe is to be cut and plugged with non shrink grout. A new 2in hole is to be core drilled 4in east of the existing 1in service, to incorporate the new 1in copper service lateral. The space between the new pipe and wall hole will be sealed with non-shrink grout.

Please advise if this is acceptable. An expedited response is requested.

1-inch Water Service Renewal -

1. Coordinate with SFWD for the shutdown of the existing domestic water service. Shutdown by SFWD.

2. Neatly remove existing fill material between the existing pipe and wall penetration to dislodge and free the existing pipe such that it can be removed by SFWD.
3. SFWD to cut and remove existing pipe.
4. SFWD to install and connect new service.
5. Fill void between pipe and exposed wall penetration with non-shrink grout.

U-0093.1 **46 Minna 6in FS Water & 1in Copper Water Service Lateral at STA 5+17 Tie-In** **Closed** **02/16/2011** **02/25/2011** **02/17/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Response to RFI #U-0093, Sheet U-3108, and attached sketch

The SFWD completed the 1in domestic and 6in fire water service change-overs on 02/15/2011.
Part of the detailed provided in the response to RFI #U-0093 for the 46 Minna 6in Fire Service water lateral could not be installed due to the angle of the pipe installed by the SFWD.

Per discussion with E. Zagol of AECOM, please confirm the direction is to fill the void on the property side with 2-5 inches of non-shrink grout, finishing grout flush with the inside wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Confirmed. Fill the void on the property side with 2-5 inches of non-shrink grout, finishing grout flush with the inside wall.

U-0094 **Joint Trench Alignment Conflict With (E) Steam MH at Minna St. STA 0+85** **Closed** **02/03/2011** **02/13/2011** **02/04/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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REQUEST:

Reference Sheet U-3107 revised 12/27/10

The revised drawings show the Joint Trench alignment crossing through an existing old steam MH (Sta 0+85). The vault is a very large structure and extends to the north face of the curb of Minna St. Trinet believes that this vault is an abandoned structure.

Trinet requests direction for abandonment and/or demolition of this structure.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Steam MH at STA 0+75 has been abandoned by NRG Energy. Demolish as indicated on U-1107 (rev. 1 12/27/10) and in accordance with the contract documents.

Coordinate with Mike Eurkus (NRG Energy) at (415) 644-9668 through the TJPA's representative for the pick up of the salvaged steam MH ring and cover.

U-0095 **Utility Company Contacts** **Closed** **02/03/2011** **02/13/2011** **02/04/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Sheet U-0002 General Notes - Existing Utilities

Sheet U-0002 - EXISTING UTILITIES lists several phone numbers for contacting various utility companies in the city. M Squared has tried to contact most of these numbers and each one has had either no answer or is currently not in service.

M Squared requests a list of active phone numbers for the utility companies listed. An expedited response is necessary due to utilty conflicts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

"M Squared has tried to contact most of these numbers"

Please provide a list of the specific agencies that M Squared has tried to contact.

U-0096 **PG&E Conflict with Sewer Installation at Natoma STA 9+50** **Closed** **02/09/2011** **02/19/2011** **02/14/2011** **Yes** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference Sheet U-3012 and attached drawing

On 02/07/2011, M Squared encountered what appeared to be a live PG&E duct bank during their sewer installation excavation on Natoma Street STA 9+50. Due to this conflict, M Squared was unable to continue excavating for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

02/14/2011 Kevin Chiu

See CR U-006 issued on 2/14/11

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the sewer (See attachment). On 02/09/2011, M Squared's Superintendant met with a PG&E Representative and PG&E Representative confirmed that the duct bank is live and is not due to be decommissioned for at least 3 months.

In order for M Squared to continue with the sewer installation, M Squared is proposing to:
- install MH #305 and begin installing pipe west of MH #305
- perform a temporary connection from MH#305 to the existing 3' x 5' brick sewer

M Squared can then perform the remainder of the work once PG&E has decommissioned the duct bank.

M Squared estimates that the additional cost to perform the temporary tie-in would be approximately $4,500.

Please confirm how you would like M Squared to proceed. M Squared requests an expedited response as they are currently stopped work and awaiting a response.

02/10/2011 Eric Zagol

Demolition and Construction Sequence shown on U-1112 and U-1120 lists per sequence order that the sewer work is to commence after PG&E has completed their Phase I work in Natoma and First St., all services cut over and existing duct bank is abandoned by PG&E. Given the fact that PG&E has experienced construction delays associated with their structures on First Street, the proposed sequence for sewer construction is acceptable.

Submit a temporary connection detail for review.

Coordinate with PG&E to abandon the existing 2-inch HP Gas along Natoma per U-1112 and U-1120 prior to demolition.

Coordinate with Verizon to abandon existing conduit (labeled "U" on base plans) prior to demolition per U-1112 and U-1120.

U-0096.1 **PGE Conflict with Sewer on Natoma at First Workaround** **Closed** **02/15/2011** **02/25/2011** **02/18/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference U-3012 and attached sketch

Per response to RFI#U-0096, M Squared has provided the attached connection detail.

Please confirm if it is acceptable to proceed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proceed with the temporary connection per the M Squared connection detial.

U-0097 **PG&E Conflict with Sewer Instll on Natoma at First** **Closed** **02/10/2011** **02/20/2011** **02/14/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

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REQUEST:

Reference Sheet U-3012

Following on from M Squared's RFI #U-0096, M Squared has confirmed in the field that there is a grade conflict between the proposed sewer and the existing electrical duct bank on Natoma between STA 9+30 to 9+50. The conflict is between the bottom of the electrical duct bank and the top of the new 24'' sewer pipe.

The elevation of bottom of electrical duct bank is 11.5'
The top of the 24'' VCP sewer is 11.82'

M Squared has also confirmed with PG&E that 3 of the 4 concrete encased conduits are occupied, 2 being occupied by 12KV lines. The duct bank is to be abandoned in the future but PG&E was unable to provide a schedule for this work.

Please advise M Squared on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Demolition and Construction Sequence shown on U-1112 and U-1120 lists per sequence order that the sewer work is to commence after PG&E has completed their Phase I work in Natoma and First St., all services cut over and existing duct bank is abandoned by PG&E.

Proceed per response to RFI U-0096.

U-0098 **Potholing at Blackrock** **Closed** **02/10/2011** **02/20/2011** **02/10/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Webcor Construction LP Marina Rosso

Co-Author:

REQUEST:

M Squared is planning to pothole next week at Howard STA 9+40, First St STA 1+50 and First St STA 2+10 to confirm the alignment and depths of the new 12'' water main on First St. from Howard to Natoma.

Guy Hollins from TJPA has advised M Squared that Blackrock is requesting additional potholing in the off-hours to determine locations of AT&T facilities in the area.

Please provide M Squared information regarding the locations of the addtional potholes requested, including the requested depths and sizes.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Can't find answer in Constructware

U-0099 **Returned Submittal Comments** **Closed** **02/16/2011** **02/26/2011** **03/11/2011** **Potentially** ☐

From: Webcor Construction LP David Hungerford **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Ref Spec section 01 13 10

According to the Action and Distribution (section 1.11) of the submittal specifications, Submittals shall be returned indicating one of the following:

No Exceptions Taken
Make Corrections Noted
Revise and Resubmit
Rejected

We have received submittals back as "Not Reviewed" or "For Record Only". Please confirm these responses are acceptable and should be incorporated into the specifications.

SUGGESTION:

VOID - See RFI #T-0051

ANSWER: **Accept Suggestion:** ☐

See RFI T-0051, Returned Submittal Comment, for response.

U-0100	Minna St MH#207 Proposed Relocation	Closed	02/18/2011	02/28/2011	02/22/2011	No	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Revised Sheet U-3009 and attached sketches

The current location of MH#207 at STA 9+25.87 will place a cap on the existing water main (installed by SFWD on 02/17/2011) in Trinet's excavation. Trinet is concerned that the old water main may not be adequately restrained and could create a dangerous condition for their excavation for MH#207. Trinet proposes to move MH#207 4 feet west to STA 9+21.87 +/-, as shown in the attached sketch, so that the cap is outside of Trinet's MH excavation. The revised invert elevation for the new MH location is shown on the attached sketch.

Please confirm if this is acceptable,

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed design change is acceptable.

AECOM suggests no change to contract price for this modification.

U-0101	First St CB#501 Conflict with Existing Utilities	Closed	02/22/2011	03/04/2011	02/28/2011	Yes	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Daphne Faulkner

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Reference Sheet U-3021, attached sketch, and USA ticket

During excavation for CB#501, Trinet encountered what appears to be a PG&E vault (shown in plans as EMH 7712), PG&E Duct (Shown in plans as 1- 2" & 4-6" EP), 2-2" steel conduits (not shown in plans), and a concrete shoring wall (not shown in plans).

- The 2-2" steel pipe is in conflict with Trinet's installation of CB#501, and will need to be relocated or abandoned to facilitate the installation of the catch basin. Trinet has done their due diligence (2nd and 3rd No Response follow ups) and these lines were not marked by the owner through USA (attached). Trinet requests direction on the relocation/abandonment of these utilities.

- Trinet proposes to move CB#501 two-feet north to avoid the conflict with the existing EMH 7712. Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pending approval by the TJPA, a deductive CR will be issued.

02/28/2011 - Eric Zagol

Following AECOM's review of the Transbay Transit Center Project 50% construction documents (rev. 12/20/10), further review of the Existing Terminal Ramps & Demolition Plans Project construction documents, and AECOM's understanding of the demolition of the existing Terminal "hump" structure and the timing of such demolition, CB#501 is no longer required.

Delete catch basin #501 and associated 10-inch sewer lateral.

U-0102	First St. CB#206 in Conflict with (E) Subsurface Conc. Structure / Duct Bank	Closed	02/23/2011	03/05/2011	03/04/2011	Potentially ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Daphne Faulkner

Co-Author:

REQUEST:

Reference Sheet U-3009 and attached sketch and photo

During Trinet's excavation for replacement of CB#206 on the northwest corner of First St. and Minna St. (at STA 9+31), they encountered a concrete subsurface structure or concrete encased duct bank not indicated on the contract drawings. The existing catch basin is approximately 30in deep and is constructed on top of the existing concrete structure/duct bank (see attached drawing).

Trinet requests direction on the demolition of the existing catch basin and the installation of the new catch basin CB#206.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pending approval by the TJPA, a deductive CR will be issued.

03/04/2011 - Eric Zagol

As determined during a site visit on 3/3/11 with Trinet, AECOM and W/O; existing unforeseen conditions including an abandoned sub-sidewalk basement wall along Minna Street, an active sub-sidewalk basement wall for the 100 First St. property, and an abandoned telecommunications concrete duct along First Street create a situation where the installation of a new catch basin would require an extensive amount of unforeseen demotion.

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In lieu of installing a new catch basin barrel to replace existing modify the existing catch basin as follows:

Clean interior walls and bottom.
Apply 1/2-inch think uniform layer of mortar on interior walls and bottom.
Install cast iron trap.
Install pipe culvert and connect to MH#207 as shown in Plans. New culvert size and invert shall match existing culvert at catch basin. Use ductile iron pipe if depth of cover is less than 3 feet.

U-0102.1 **Catch Basin #206 redesign** **Closed** **04/01/2011** **04/11/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please clarify the following items relating to the re-design of CB#206:

1) The only specification section addressing mortar coating is in 33 31 10 Paragraph 2.1.I, which specifies a "Wet Spray Mortar" application. This process would be cost prohibitive for coating only one catch basin. Trinet proposes the use of "SikaTop 123 Plus" mortar - product data sheets are attached. Please advise if this product is acceptable or specify an alternate material.

2) The RFI response directs Trinet to use ductile iron pipe for culvert runs with less that 3' of cover. If 22.5% DI bends are required to construct the culverts Trinet would prefer to use Mechanical Joint Fittings. Please advise if these are acceptable.

SUGGESTION:

Eric Zagol 4/12/2011: 1) SikaTop 123 Plus mortar is acceptable. 2) MJ DIP for 22.5 degree fittings is acceptable for culvert runs with less than 3 feet of cover.

ANSWER: **Accept Suggestion:** ☐

U-0103 **Natoma St. 4in Water Line Conflict with MH#306** **Closed** **02/24/2011** **03/07/2011** **02/24/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

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Reference Sheet U-1113 and U-3113

A 4-inch water line runs from east to west on the south side of Natoma from Sta 9+40 to Sta 10+95. At Sta 10+95, the 4-in water line 90degrees into the building at 400 Howard St. This building however, appears to be fed from the existing 8-inch line on 1st St between Howard and Natoma.

Is this 4-inch water lateral at Sta 10+95 on Natoma already abandoned? If not, can M Squared abandon it? It is currently in conflict with the proposed location of MH#306, and is also in conflict with the excavation and shoring for the new 30-inch sewer along Natoma (TG04.1).

It is AECOM's understanding that the existing 4-inch lateral is "killed" (not supplying water) however the "killed" lateral may still be pressurized up to the lateral terminal point at the gate valves located on the south side of Natoma Street at Natoma Street STA 10+95.

Demolish 4-inch water as indicated on U-1112, U-1113 and U-1120.

Prior to demolition:

1. Coordinate with SFPUC inspector to confirm 4-inch lateral is "killed".
2. Coordinate with SFPUC inspector to confirm that the lateral is not pressurized and that the 4-inch gate valve at Natoma Street STA 9+40 (intersection with existing First Street 8-inch water main) is closed.
3. Coordinate with SFPUC inspector and install cap in First Street as shown on U-1120 at Natoma STA 9+55 +/-.

U-0104 | **Natoma St. Temporary Sewer Connections at Sta 9+25 and Sta 7+20** | **Closed** | **02/24/2011** | **03/06/2011** | **03/01/2011** | **Yes** | ☐

From: Webcor Construction LP Nhi Tran

To: Turner Construction Compan Michelle Smith

Answered By: AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheets U-1112, U-1120, U-3012, and RFI#U-0096

In order for M Squared to install the new water main on Natoma Street between Sta 6+40 to Sta 10+00, the existing 3'x5' sewer must first be demolished. The 3'x5' sewer cannot be demolished until the new 24-inch VCP has been installed and connected to the existing sewer on First Street at Sta 9+59. Per sheets U-1112 and U-1120, the new 24-inch sewer is to be constructed after the demolition of the PG&E ducts. However, demolition of the PG&E ducts cannot be completed because PG&E has not completed their relocation work

Per RFI#U-0096 (M Squared RFI #009), as confirmed by

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Due to existing PG&E duct in conflict caused by PG&E's delay with First St. Phase I relocations, the two 12-inch temporary HDPE connections as proposed are acceptable as an interim condition until PG&E Phase I work is complete and the existing duct in conflict can be demolished per plans.

Daphne Faulkner - Pending approval by the TJPA, a CR will be issued.

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PG&E in the field on 02/09/2011, there is a live PG&E duct bank in conflict with MH#305 and the new 24-inch VCP between MH#305 and MH#306, and not due to be decommissioned for at least three months.

M Squared proposes to install a 12-inch HDPE pipe from Sta 9+25 to Sta 9+59, and perform a temporary connection to the existing 3'x5' sewer on First Street. Surveys carried out on the electric duct bank at Sta 9+30 on 02/08/11 shows that the bottom of the Duct Bank is approx. 10.8, meaning a 12-inch pipe will fit. In addition, M Squared proposes to perform a temporary connection (also 12-inch HDPE) at Sta 7+20 from the new MH#303 to the existing 3'x5' sewer. This would allow M Squared to demolish the 3'x5' sewer from Sta 7+02 to Sta 9+59, and allow M Squared to install the water from Sta 6+40 to Sta 10+00.

M Squared estimates the cost for both of these connections is $20,000.

An expedited response is required to avoid impact to the installation of the water line

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U-0105 **Natoma St Duct Bank Conflict at Sta 12+92** **Closed** **02/24/2011** **03/06/2011** **03/01/2011** **Yes** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-1113, U-1122, U-3013 and attached drawing

A pothole on Natoma Street at Sta 12+92 confirmed that the duct bank shown on Sheet U-3013 is in conflict with the proposed 30-inch VCP sewer (see attached drawing).

Per sheets U-1122 and U-1113, the new 30-inch sewer is to be constructed after the demolition of the PG&E ducts. However, demolition of the PG&E ducts cannot be completed because PG&E has not completed their relocation work. Per PG&E's new schedule this work is not scheduled to be completed until 06/31/2011. This would

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Due to existing PG&E duct in conflict caused by PG&E's delay with Fremont St. Phase I relocations, the12-inch temporary HDPE connection as proposed is acceptable as an interim condition until PG&E Phase I work is complete and the existing duct in conflict can be demolished per plans.

Daphne Faulkner - Pending approval by the TJPA, a CR will be issued.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

mean M Squared's work cannot start until after this.

In order for M Squared to continue with their work, M Squared proposes the use of 12-inch HDPE pipe from Sta 12+80 to existing sewer at Sta 13+15 (proposed location of MH#602). Once PG&E has completed their cutovers and the duct bank is abandoned, M Squared will demo the duct bank per specifications and complete the installation of the 30-inch VCP sewer from Sta 12+80 to MH#602.

M Squared estimates the cost for this work is $15,000.

An expedited response is required to avoid impact to the installation of the sewer and water line

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U-0106 **First St Sewer MH#502 Adjustment to Avoid Conflict w/ (E) PG&E Duct** **Closed** **02/25/2011** **03/07/2011** **02/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3021 and attached sketch

In order for Trinet to avoid a conflict with the existing PG&E duct along the west wall of their excavation, Trinet adjusted the south end of the MH#502 structure by 7 inches to the east (as shown in attached sketch). MH#502 is still aligned to incorporate the connection to the existing brick sewer, and the alignment of the new 24-inch VCP run is unaffected by this change. Trinet will adjust rebar as required to maintain the required spacing and clearances.

Please confirm if the adjustment of MH#502 is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The sketch referenced above is based on CCSF DPW Standard #87,184 that shows the minimum reinforcing plan for the connection to the existing 3'x5' brick sewer. Provide reinforcing for connection to 3'x5' per CCSF DPW Standard.

Confirm that the manhole is being constructed per CCSF DPW Standard #87,182 as shown in Detail 10 on U-5001.

Provide width of west wall and location of reinforcing steel at 3'x5' brick sewer connection and 24-inch VCP sewer connection for review.

U-0107 **AWSS Cap Permit Requirements** **Closed** **02/25/2011** **03/07/2011** **02/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

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W/O would like to confirm that other than any standard permits required for any excavation in the city of San Francisco, there is no additional permit required by any city agency in order to perform work on the AWSS caps.

Per discussions with Michael Smith SFDPW BOE, there are no additional permits required for AWSS construction beyond the standard permits for constructing utilities within the public right-of-way.

Notify CCSF SFFD and SFPUC/SFWD through the TJPA's representative in advance the work to isolate work areas.

U-0108 **FH Relocation on Beale St** **Closed** **02/25/2011** **03/07/2011** **02/28/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference sheet U-3124 and attached photo

See the photo attached. The proposed location for the FH on Beale St at ~Sta 2+20 is in between a driveway for a parking garage and a driveway for a loading dock. Per discussions with Eric Zagol, please confirm the FH is to be relocated to the East side of Beale St as highlighted by the green line on the attached drawing.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct FH lateral and FH on the East side of Beale Street at STA 2+04 as shown on SK-U-0008 attached.

U-0109 **First St Sewer Grade Change To Conform to Existing 3'x5' Brick Sewer** **Closed** **03/02/2011** **03/14/2011** **03/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3021, U-3009, and attached sketch

This RFI confirms modification discussed in the field by Trinet and discussed with the Design Engineer, SFDPW, and W/O personnel. Trinet's field survey shows the existing 3'x5' brick sewer on First Street to be approximately 11-inches lower than the grade depicted on the drawings. Trinet also checked the elevation of the existing SSMH (10-feet north of MH#501) and confirmed

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct MH#502 at First St. STA 4+98 as shown on U-3021 to match the invert elevation of the existing 3'x5' brick sewer, elevation 6.77 as determined in the field by contractor.

Construct MH#501 at First St. STA 4+45 as shown on U-3021 with an invert elevation of 7.58 as determined by contractor.

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that it is approximately 11-inches lower than what is shown on the drawings. Trinet installed MH#502 with invert elevation at 6.77 to match the existing brick sewer at the connection point. The new 24-inch VCP is being installed 11-inches lower than what is shown on the drawings maintaining the design slope of 0.0062. MH#501 will be installed with the invert elevation of 7.58, as shown in the attached sketch.

Please confirm that this design is acceptable. Also, please provide a revised grade for the 24-inch VCP run from MH#207 (Minna St.) to MH#501.

Construct MH#207 per RFI-U100.

Construct the 24-inch VCP sewer from MH#207 (invert elevation 8.67 per RFI U-0100) at a continuous downward slope such that the invert elevation of the 24-inch VCP at MH#501 matches the invert elevation of MH#501 at elevation 7.58.

Based on discussions with Trinet in the field, Trinet reported 11-inches of sediment/sludge/dirt in the existing 3'x5' brick sewer. Please confirm that existing sewer in First Street was cleaned with high velocity hydro cleaning equipment per specification section 33 31 10 3.2 A prior to excavation.

U-0110 **Joint Preconstruction Survey Requirement** **Closed** **03/02/2011** **03/12/2011** **03/03/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Transbay PMPC Derrick Cooper

Co-Author:

REQUEST:

Reference Specification Section 01 15 40, 1.5

Singer has been coordinating W/O access to the adjacent properties for W/O's subcontractors to complete their Joint Pre-Construction survey (Spec. 01 15 40, 1.5). Singer has informed W/O that they were instructed by TJPA Representatives to stop scheduling the joint surveys because TJPA will be conducting one overall survey, instead of having each individual contractor do them.

The surveys are a specification requirement for current and future subcontractors. Please clarify this specification, moving foward.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

TJPA will be conducting perconstruction surveys of adjacent property interiors. Singer will not be scheduling these surveys for W/O subcontractors.

U-0111 **Minna St. Joint Trench Conflict with (E) 8" elbow and thrust block** **Closed** **03/04/2011** **03/14/2011** **03/09/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Reference drawing sheet U-3409 and attached sketch.

During our excavation for the joint trench on the east end of Minna St. (STA 9+29) Trinet encountered the (E) 8" water main in Trinet's trench line, approximately 1 foot from our termination point. The existing alignment is different from what is shown in the contract drawings. The drawings do not show the water line crossing the joint tranch. The alignment and grade of the water main changed in Trinet's excavation to avoid the adjacent catch basin. A 22.5 degree elbow is located in the center of the joint trench excavation. The elbow is rolled up to accommodate the grade change and there is a thrust block under the footing. Trinet does not believe that it would be safe to excavate under the water main for Trinet's duct bank without having the line shutoff. Extending the PG&E ducts to FOC will also place the connection point for PG&E's extension of the duct bank directly under the water main fittings and elbows. There is adequate clearance to install the 4" gas line above the water main and extend it out to FOC per contract. The top of the water main is 49" below FG at the south side of the joint trench, at the location of the ags line.

Trinet propses to terminate the concrete encased duct bank approximately 5 ft. back from FOC. This would allow adequate room for Trinet to mandrel the ducts after the joint trench is installed without undermining the water main. PG&E could then extend their duct bank under the water main to connect to Trinet's water main. Please advise.

Per request to Jason Dunne (W/O) via email on 3/4/11 please provide the following information for review:

Horizontal (from a known point i.e. FOC along First St.) and vertical location of "top of water main".
Horizontal (from a known point i.e. FOC along First St.) and vertical location of water line at "22.5 degree elbow".
Determine if the water main is mechanically restrained with tie rods at each bend in questions.
Approximate size of existing concrete thurst block a the "22.5 degree elbow".

U-0111.1 **Minna St Joint Trench Conflict @ Existing Water Line Elbow** **Closed** **04/18/2011** **04/28/2011** **04/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please find the attached as built drawing of the Joint Trench @ the intersection of Minna St. and First St. where the (E) 8" W main elbow was encountered.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/20/2011: Please provide the information requested in RFI U-0111 response or confirm that the existing water line referenced in RFI U-0111 is mechanically restrained.

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Construct Joint Trench to limit as indicated in Plans.

Refer to ASI-005 for the Joint Trench extension into First Street.

U-0111.2 **Minna St Joint Trench Conflict @ Existing Water Line Elbow** **Closed** **04/25/2011** **05/05/2011** **04/28/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Eric Zagol 4/20/2011: Please provide the information requested in RFI U-0111 response or confirm that the existing water line referenced in RFI U-0111 is mechanically restrained.

Answer: The waterline is mechanically restrained.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/26/2011 Proceed pre RFI U-0111.1 response.

U-0112 **Minna St. Joint Trench, AT&T Vault and Conduit Configuration** **Closed** **03/08/2011** **03/18/2011** **03/15/2011** **Potentially** ☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3408

At the 02/03/2011 Joint Trench Pre-Construction meeting and field walk through, the AT&T inspector expressed concern with the configuration of the AT&T ducts connecting to the AT&T vault at Sta 3+71. The AT&T inspector was specifically concerned with the east side of the vault where all eight 4-inch ducts are shown entering the vault on the one side (north side) of the center line.

Trinet would like AT&T to review the duct configuration connection to the vault as depicted in the contract drawings and provide a revised drawing if they wish to make a change.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

AT&T has reviewed the information and has proposed revisions to the Joint Trench to accommodate the following:

1. Revised information from AT&T regarding 555 Mission St. service point of connection, and
2. AT&T preferred Minna St. AT&T vault conduit penetration locations

Attached SK-U-0009 is a markup of the AT&T Vault at STA 3+71 butterfly drawing indicating conduit penetrations and schematic diagram of conduit alignments. Revised Minna St. Joint Trench Plans are being prepared as part of ASI#3 to address these revisions as well as changes associated with RFI U-0088.

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U-0113	**AWSS Cap on First St. at Howard**	**Closed**	**03/08/2011**	**03/18/2011**	**03/10/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Drawing No. AWSS MA-5

On 03/08/2011, M Squared excavated and exposed the existing AWSS line and gate valve on First St. at Howard. Upon inspection of the existing gate valve, it appears that the gate valve does not have lugs on it. This means that M Squared cannot tie back the proposed 10-inch AWSS cap on the AWSS line.

Please advise on how you would like M Squared to proceed with the cap installation. An expedited response is requested.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith (SFDPW BOE), AWSS Engineer of record, will provide response directly to PMPC/Turner.

03/10/2011 - Daphne Faulkner

Michael Smith (SFDPW BOE), AWSS Engineer of record provided response via email dated 3/9/11. See attached email, RFI response and AWSS Standard Dwg. III.

U-0113.1	**AWSS Strong Backs**	**Closed**	**03/17/2011**	**03/27/2011**	**03/22/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Reference RFI #U-0113

On 3/16/2011, M Squared met with Dan Helminiak from SFWD and Michael Smith from BOE to proceed with the AWSS Cap work at First & Howard. As directed in the response to RFI#U-0013, M Squared installed the strong back provided to them. After the strong back was installed, Dan H. and Michael S. determined that the strong backs would not work due to the diameter of the existing valve bell.

M Squared requests direction on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See attached file, "RFI U-0113.1 1490J Phase I First Street RFI No. 113.1 BOE Response 03 22 11," dated 03/22/11 for handwritten response per Michael Smith of SFDPW/BOE/Mechanical. Response below was copied into CW:

"- Proceed with installation without strong back and tie rods.

- A minimum of 100' of out-of-service AWSS main north of cap at First/Howard streets, and south of cap at Mission/First streets shall remain-in-place.

- Additionally the specified concrete thrust block shall be increased by 3 times the volume and encompass the existing abandoned-in-place line for a distance of 4' downstream of steel plate.

- Strong backs (2) shall be returned to CCSF."

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0114	**PG&E Abandonment Schedule for Natoma St. at Second St.**	**Closed**	**03/09/2011**	**03/19/2011**	**05/07/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-1110 and U-2010

On 03/04/2011, M Squared met with a PG&E representative on site at Natoma and 2nd Street. The PG&E representative confirmed that none of their utilities had been abandoned in the area, and that the PG&E representative would be unable to provide a schedule for this abandonment.

Per note 2 on sheet U-1110, the services for 77 Natoma and 83 Natoma were to be terminated by Feb 2011. To date, this work does not appear to be completed.
In PG&E's letter to the TJPA regarding their schedule, there is no reference to work on Natoma Street at 2nd St.

M Squared is unable to proceed with their sewer and water utility installation on Natoma St. west of shoring wall until PG&E has completed abandonment of their existing utilities.

Please provide M Squared with an updated schedule for all PG&E's termination/abandonment work at 2nd and Natoma St.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 3/18/2011 ***5/5/11 UPDATE***

77 Natoma and 83 Natoma services have been terminated, refer to USR Nos. 11 and 13 as executed by W/O, Turner and PG&E on 4/21/11.

As of 5/4/11, PG&E estimates that Natoma Street will be de-energized by 5/21/11. Coordinate USRs for the remaining electric ducts with Turner and PG&E.

3/18/11 RESPONSE

Per demolition and construction sequencing shown on sheet U-1110, water and sewer work shall commence after PG&E has completed their Phase I relocations in First St., Natoma St. and existing electric ducts are abandoned by PG&E.

PG&E services to 77 Natoma and 83 Natoma have been terminated as part of the Existing Terminal & Ramps Demolition Project. USRs for these services are currently being prepared by the TJPA's Representative (Turner). The USRs shall indicate the service conduits and cables that are abandoned subject to demolition as indicated in sheet U-1110.

To facilitate schedule, AECOM has requested PG&E to de-energize Natoma St. to the extent possible in an effort to re-sequence construction of the sewer. PG&E's response and schedule of abandonment is forthcoming.

As shown on U-3110 the water line could be constructed prior to PG&E abandoning their facilities. Pothole to confirm the water line can be constructed as shown on U-3110.

U-0115	**AWSS Cap Work Sequence on First St**	**Closed**	**03/07/2011**	**03/17/2011**	**03/15/2011**	**Yes**	☐

From: Webcor Construction LP Nhi Tran **To:** **Answered By:**

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Turner Construction Compan Michelle Smith — Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

Refer to Sheets MA-5, MA-8

There are two caps that are required to be installed in order to shutdown the AWSS service on First St between Mission to Howard St. Per the construction schedule, both caps were supposed to be worked on simultaneously. Please confirm per a conversation in the field on 03/07/2011 with inspectors Michael Smith (SFDPW) and Dan Helminak (DPW), only one AWSS cap can be installed at a time.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The below response was copied into Constructware on behalf of Michael B. Smith SFDPW/BOE/Mechanical (see attached, "RFI U-0115 1490J Phase I First Street BOE Response 03 11 11")

"Installing/capping of the AWSS lines at two locations in sequence instead of simultaneously was a decision made by the SFWD/CCD together with SFFD. Please contact Dan Helminiak of SFWD/CDD at (415) 420-4821 for further information" - Michael B. Smith SFDPW/BOE/Mechanical dated 03/11/2011

03/14/2011 - Eric Zagol

Michael Smith from SFDPW BOE will respond to this RFI.

U-0116 | **Abandoned 6" Fire Water Service Thru 100 First St Basement Wall** | **Closed** | **03/18/2011** | **03/28/2011** | **03/21/2011** | **Potentially** ☐

From: Webcor Construction LP Nhi Tran — **To:** Turner Construction Compan Michelle Smith — **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Refer to sheets U-1109 and U-3109

An abandoned existing 6" fire water service lateral was discovered while demolishing the old 8" water main running down Minna St. The 6" fire water service lateral was not shown on the plans and there were no existing water valve covers to indicate the existence of this line. The abandoned lateral penetrates the foundation wall entering the basement to 100 First St at Station 7+36.

Please provide direction for plugging the void that will be left after 100 First St management removes the 6" water lateral pipe. A roughly 1ft x ft x 1ft deep square opening will remain after the fire water lateral pipe is removed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Contractor had knowledge of existing abandoned 6-inch fire water service at STA ~7+35.

Existing abandoned 6-inch fire water service at STA ~7+36 was exposed and potholed by Trinet on 11/19/2010 and included in Submittal TG0405-024 Item No: UA0000-020630A01.0 as Pot Hole No. 29.

Cut and plug abandoned 6-inch fire water service in accordance with specification section 02 41 00 3.6 at face of curb along the North side of Minna St.

Please clarify why private property improvements are being requested.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0117	**Natoma St. Future Hydrant Location at Sta 11+79**	**Closed**	**03/21/2011**	**03/31/2011**	**03/24/2011**	**Potentially**	☐

From: Webcor Construction LP Nhi Tran **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference Sheet U-3113

Sheet U-3113 shows an 8in x 8in x 6in tee in the new 8-inch water main on Natoma at Sta 11+79. The note on the drawing makes reference to it being used as a future location for a fire hydrant. Sta 11+79 is in front of a loading dock and parking garage on Natoma Street.

Please confirm that it is intended for M Squared to install the tee in the water main line at this location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As discussed in the field on 3/21/11 with Noel (M Squared) and Dan Helminiack (SFWD), construct tee for future fire hydrant and lateral connection at STA 11+37 (4 ft min. west of existing street light).

U-0118	**Minna Street Joint Trench, PG&E Duct Routing and Termination Points**	**Closed**	**03/24/2011**	**04/03/2011**	**04/06/2011**	**Potentially**	☐

From: Webcor/Obayashi Joint Venture Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please provide a routing drawing or written clairification of the routing for the PG&E Duct stub-outs in the Minna St. Joint Trench, between First St. and Second St. It is not clear from the plans in all cases where all the ducts extending from stub-outs terminate. Please expedite.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please see the attached sketches clarifying where the ducts extending from stub-outs terminate (/originate).

Please note that the 2-2" conduits shown on U-3410 sections C, D, F and G terminate at "stub out reference A".

U-0119	**Minna St. JT_ AT&T Reconfiguration and impact on (E) trees**	**Closed**	**03/25/2011**	**04/04/2011**	**03/30/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The revised drawings for the Joint Trench alignment dated 3/16/2011 show the reconfigured AT&T ducts running through an existing tree well on the east side of the AT&T vault at Stn. 3+71. RFI U-0112 (Minna St, Joint Trench, AT&T Vault and Conduit Configuration) also shows the reconfigured AT&T ducts running through an existing tree well on the east side of the vault. This conduit layout in consistent with discussions with the AT&T inspector in the field was reflected in the shop drawings. The revised

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per discussions on site on 3/28/11 with Jack Kelliher (Trinet), Dave Olsen (AT&T), Dave Gibbons (AT&T) and Colin Azevedo (W/O), provide a 22.5 bend at conduit penetration for the 2-4" conduits on the south side of the east to avoid direct conflict. Remove tree grate and frame as required to construct conduit. Restore tree grate, fame, sidewalk curb and gutter. Protect tree and existing irrigation pipes in place.

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drawings do not address relocation and/or removal of the impacted trees and the related irrigation changes. Please review and advise.

U-0120 **MH601 Locatio** **Closed** **03/28/2011** **04/07/2011** **04/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Sheet U-3022 shows MH601 @ Sta 0+70 on Fremont Street. This location is also in the middle of the crosswalk on Fremont Street. USA markings show the existing traffic signal conduits crossing thru the center of the manhole. By moving the manhole approx 8¿ north the conflict with the traffic signal conduits would be avoided and it would also avoid having a manhole cover in a crosswalk. Please advise on how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Move proposed sewer MH north to STA 77.56 to avoid existing Traffic Signal
conduit conflict as shown in SK-U-013 attached. Construct 10-inch CB culvert lateral as shown SK-U-013 attached.

U-0121 **AWSS Caps at Beale Street** **Closed** **03/31/2011** **04/10/2011** **04/06/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

1 - Current bid documents for Trade Group TG04.2R (AWSS system at Mission Street) call for capping of the AWSS system on Beale Street near the intersections with Howard Street and with Mission Street. Because of delays in the bid schedule for TG04.2R, the construction schedule dictates that these caps be completed well before the anticipated start of the TG04.2R field work. Please provide details so as to allow this capping work to be done in advance of the awarding of the TG04.2R scope of work.

2 - Please confirm whether the material required to do this work is available at the City of San Francisco.

3 - Please provide direction as to how this scope of work should proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Pothole the existing AWSS gate valve at the Beale at Mission street proposed cap location as shown on M-6 (Rev No. 1, 1/31/11) to determine if the existing gate valve has lugs. SFWD to inspect condition of gate valve once excavated, coordinate with SFWD inspector accordingly.

Details for the capping work at Beale and Mission, and Beale and Howard will be provided following gate valve inspection.

Webcor/Obayashi Joint Venture

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This capping is near critical path on the current construction schedule. An expedited response is requested.

U-0121.1 **AWSS Caps at Beale Street** **Closed** **05/02/2011** **05/12/2011** **05/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The AWSS valve at Mission and Beale was potholed on 4/29/2011 per response to RFI#U-0121. It was confirmed that the existing valve does not have lugs.

Please provide details for capping the AWSS line on Beale.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/4/2011 From Michael Smith (SFDPW BOE);

Refer to attached DWG M-6 Rev 1 with changes made on 05/04/11. Cap is to be tied back to (E) pipe with cast lugs.

Eric Zagol 4/5/2011 ***4/19/11 UPDATE***

In response to the numbered items above:

1. Refer to the attached markups of TG04.2R documents from SFDPW BOE that define the AWSS abandonment/capping scope for Beale Street; MA-6 for the work in Beale St. at Mission St., and MA-10 and MA-19 for the work in Beale St. at Howard St.

2. SFWD Inspector Daniel Helminiak has confirmed that the following materials are available at the SFFD Yard:

Beale at Mission Street

- 1 10-inch DI MJ spigot x GH spigot adapter

- 1 10-inch DI MJ flat cap

- 1 18-inch x 18-inch x 1-inch steel plate

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Beale at Howard Street

- 4 10-inch DI stop collar

- 2 10-inch DI bell collar

- 1 10-inch DI flat cap

Coordinate with SFWD Inspector for materials provided by SFWD.

3. Proceed with this work per direction from TJPA Representative. Coordinate the shutdown of existing AWSS main in Beale St. with SFWD prior to commencing the work.

4. Submit pothole data for review per RFI response provided on 4/5/11 as stated below.

****
****

4/5/11 Response

Pothole the existing AWSS gate valve at the Beale at Mission street proposed cap location as shown on M-6 (Rev No. 1, 1/31/11) to determine if the existing gate valve has lugs. SFWD to inspect condition of gate valve once excavated, coordinate with SFWD inspector accordingly.

Details for the capping work at Beale and Mission, and Beale and Howard will be provided following gate valve inspection.

U-0122 **M Squared Submittals for TG04 Bid Packages** **Closed** **04/01/2011** **04/11/2011** **04/11/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Michelle Smith

Co-Author:

REQUEST: **SUGGESTION:** **ANSWER:** **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm the following:

Per previous discussions it has been agreed between the TJPA, AECOM, Turner Webcor/Obayashi and M Squared that material submittals approved for use by M Squared in individual bid packages will be considered acceptable for all bid packages M Squared is working on (TG04.1, TG04.3, TG04.4, & TG04.6).

These submittal include:

TG0434-002 - Excavation & Backfill Samples
TG0434-003 - Excavation & Backfill Test Reports
TG0434-004 - Excavation & Backfill Compaction & Warning Tape
TG0434-005 - Shoring Plan
TG0434-006 - Backfill Material
TG0434-007 - Water Utilities Distribution Piping & Valves
TG0434-010 - Asphalt Mix Design
TG0434-013 - Noise Mitigation Plan
TG0434-015 - CQC Plan
TG0434-016 - Health and Safety Plan and MSDS
TG0434-017 - SWPPP
TG0434-018 - Debris Management Plan
TG0434-025 - Cast in Place Concrete
TG0434-030 - Labor Rates
TG0404-001 - Sewer Package
TG0404-002 - Filter Fabric
TG0404-003 - Concrete Forming
TG0404-004 - Precast Concrete
TG0404-005 - Precast Concrete Catch Basin Base

Eric Zagol, 4/4/2011: AECOM suggests that the Construction Manager Oversight (Turner) confirms this RFI.

Guy Hollins, 4/5/2011: Confirmed for all submittals listed with the understanding that no deviations from the previously-approved submittal are allowed without the submission and approval of a separate and new submittal request.

Michelle Smith, 4/11/2011: TJPA has no objection to subcontractors using submittals that were submitted by their OWN company and approved for a previous TG04 Utilities Relocation trade package, as long as the application is the same as the application in the previous trade package.

U-0123 **Unknown Fire Service @ 85 Natoma** **Closed** **04/04/2011** **04/14/2011** **04/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While Excavating to install the water line on Natoma from the shoring wall to 2nd Street M Squared encountered an existing fire service going to 85 Natoma. This service is not shown on the drawings and is not in the specifications

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

SFPUC Customer Service Bureau data shows an active Domestic water, an active Fire water service, and 2 "killed" Domestic water services to 85 Natoma Street.

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as one of the connections to be made to the new line.
(See attached)
Please advise on how to proceed.

Coordinate with SFWD to confirm and locate the active Fire water line to 85 Natoma Street.

Provide information on location, size, and material for review.

U-0123.1 **Fire Service @ 85 Natoma** **Closed** **04/11/2011** **04/21/2011** **04/18/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** Webcor Construction LP Colin Azevedo

Co-Author:

REQUEST:

Please note that on RFI #U-0123 the location of the fire service was incorrectly drawn. The fire service is actually located around Sta 2+35.

M Squared potholed at Sta 2+35 and discovered a 4¿ ductile iron pipe which is believe to be the active fire service for 85 Natoma Street.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/15/2011: Per response to RFI U-0123, coordinate with SFWD Inspector to confirm the 4" DIP is the active fire water service to 85 Natoma Street.

Once confirmed, provide and install 8"x8"x4" tee and 4" gate valve.

Connection to existing 4" DIP fire service by SFWD. Excavate and shore for connection in accordance with the contract documents. Coordinate with SFWD Inspector for connection by SFWD.

U-0124 **Conflict Between New 24" Sewer and existing AWSS Line on Beale** **Closed** **04/07/2011** **04/17/2011** **04/28/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared has confirmed that the 14" AWSS Line shown on sheet U-3024 is in conflict with the proposed 24" VCP on Beale Street. The AWSS line is shown on the plan view but not on the elevation view on sheet U-3024.
M Squared also shot the elevation of the existing sewer manhole. The elevation is 4.60, and not 4.70 as shown on the plans. The invert of the 14" AWSS is 6.2. (See attached)
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/26/2011: Construct temporary 2-10" VCP and new SMH as shown on revised U-3024 (rev 2 4/26/11) and SK-U-0018. Construct SMH #701 to allow for future 24" VCP connection as indicated.

Relocate AWSS line in Howard St., not included in package. Design forthcoming potentially to be included in TG04.2R.

Following relocation of the AWSS line, construct 24" VCP sewer per contract documents.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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U-0124.1 **Conflict Between 24" Sewer and AWSS Line on Beale** **Closed** **07/07/2011** **07/17/2011** **03/27/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Per the response to RFI#U-0124 a design to relocate the AWSS line @ Howard and Beale is forthcoming. Please advise the status of this design.

SUGGESTION:

Eric Zagol 7/20/2011 Design is being performed by SFDPW BOE and will be tracked and issued via a forthcoming ASI. Schedule will be discussed with SFDPW BOE on 7/22/11. An update will be provided in the RUP OAC on 7/26/11.

ANSWER: **Accept Suggestion:** ☐

RFIs U-128.2 and U-124.1 were responded to in July of 2011 and provided temporary solutions to utility conflicts with a full resolution planned to come via future ASI. ASI 21, which addresses these issues, was uploaded to Constructware on 3/21/12 by Eric Zagol for design approval. A CR for this work will be issued in the near future.

U-0125 **Precast Catch Basin Bases** **Closed** **04/08/2011** **04/18/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In lieu of a cast in place base per CCSF DPW Standards, M Squared would like to propose the use of a precast catch basin. The catch basin barrel is attached to the precast base and it comes as one single unit. Before installing the precast catch basin base with barrel, M Squared will place a minimum 6" compacted level layer of crushed rock as the sub base. The proposed material specifications are attached.
Please confirm if this method is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/12/2011 Precast catchbasin base is approved with conditions specified.
The 5 foot catchbasin barrel shall be attached to the base section to form a monolith structure with the same dimensions, compressive strength and reinforcement as the CCSF DPW Standard cast in place base.
Provide a minimum 6" level layer of uniform compacted crushed rock as the sub base.

U-0126 **Existing Brick Man Hole @ Second and Natoma In Conflict With Joint Trench** **Closed** **04/11/2011** **04/11/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While potholing the Second St. Joint Trench crossing

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/12/2011: Confirm existing abandoned

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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Trinet encountered an existing brick sewer man hole which is in conflict with the joint trench alignment. The manhole is not shown on the plans and had been paved over. The manhole also appears to have been previously abandoned. See the attached sketch and photograph detailing the location of the manhole.

Please advise on how to proceed.

sewer manhole is filled with slurry grout to 4 feet below rim elevation.
Demolish and remove existing abandoned sewer manhole as required to construct the Joint Trench to an elevation 1-foot below bottom of Joint Trench. Backfill and restore in accordance with contract documents.

U-0127 **Minna Street Sewer Manhole #201 in Crosswalk** **Closed** **04/11/2011** **04/21/2011** **04/13/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Plan Sheet U-3007 shows MH#201 to be installed in the center of the crosswalk @ Minna and Second Street. The City of San Francisco typically avoids locating manholes in crosswalks, whenever possible, for ADA considerations. Please advise if MH#201 should be installed outside of the crosswalk.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/13/2011: Sewer manhole location can not be adjusted due to an existing 8-inch Water and 4-inch HP Gas main. Construct manhole at the location per Plans.
In lieu of CCSF DPW Standard MH cover, provide an ADA complainant cover that meets the following specifications:
1. MATERIAL - The cast iron shall be in accordance with ASTM "Standard Specifications for Gray Cast Iron Castings" Designation A 48, Class 30. The tinsel strength shall be considered the primary test for qualification.
2. FINISH- STANDARD FINISH SHALL BE RAW, AS CAST, AND YIELD A MINIMUM COEFFICIENT FOR FRICTION OF .6 OR BETTER IN WET OR DRY CONDITIONS.
3. CASTINGS - SHALL BE FREE OF BLOW HOLES, FLASHING, GRIND MARKS, AND OTHER SURFACE BLEMISHES.
4. Cover shall incorporate a "pic-hole" for lifting purposes.
5. ADA COMPLIANCY- CASTINGS SHALL HAVE HOLES NO GREATER THAN ½" IN THE DOMINANT DIRECTION OF MOTION, NO VERTICAL RISE OF GREATER THAN ¼", IF THE RISE IS GREATER THAN ¼" THE RISE/RUN RATIO NEEDS TO BE 1;2 AND THE MAXIMUM HEIGHT SHALL BE 1/2".
6. Cover shall BE MADE TO FIT EXISTNG FRAMES

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OR be MACHINED to FIT EXITING FRAMES PER SFDPW STANDARD PLAN 87,190.
7. Cover should be MADE of quality EQUAL TO OR GREATER then THE PRODUCTS MADE BY D&L Foundry or Equal, see attached product data sheet.

U-0128 **AWSS Conflict with Sewer on Fremont** **Closed** **04/11/2011** **04/21/2011** **04/19/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

A pothole at Sta 0+52 has confirmed that the existing AWSS line is in direct conflict with the proposed sewer on Fremont Street. The drawings show a 4" HPW line at invert elevation 13.0. Measurements taken in the pothole reveal a 14" HPW line at invert elevation 8.4. At this elevation the HPW line is in direct conflict with the proposed VCP sewer.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/19/2011 A temporary connection between MH #601 and (E) MH in Howard Street is being considered as an option. Please confirm the invert elevation of the (E) MH at Howard St. (Fremont St. STA 0+29.5) is EL 6.4 as shown on U-3022.

U-0128.1 **AWSS Conflict with Sewer on Fremont** **Closed** **04/11/2011** **04/21/2011** **04/26/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared has confirmed the invert elevation for the existing manhole at station 0+29.5 Fremont St. is EL 6.4 as shown on U-3022.

Please adivse.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/25/2011: In reference to RFI U-0128 and U-0128.1, construct temporary 15" VCP from SMH #601 to existing SMH at STA 0+29.50 as shown on attached SK-U-0016 and SK-U-0017. Construct SMH #601 to allow for future 30" VCP connection as indicated in SK-U-0016.

Relocate AWSS line in Howard St., not included in package. Design forthcoming potentially to be included in TG04.2R.

Following relocation of the AWSS line, construct 30" VCP sewer per contract documents.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0128.2	**AWSS Conflict with Sewer on Fremont**	**Closed**	**07/07/2011**	**07/17/2011**	**03/27/2012**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Per the response to RFI#U-0128.1 a design to relocate the AWSS line @ Howard and Fremont is forthcoming.
Please advise the status of this design.

SUGGESTION:

Eric Zagol 7/20/2011 Design is being performed by SFDPW BOE and will be tracked and issued via a forthcoming ASI. Schedule will be discussed with SFDPW BOE on 7/22/11. An update will be provided in the RUP OAC on 7/26/11.

ANSWER: **Accept Suggestion:** ☐

RFIs U-128.2 and U-124.1 were responded to in July of 2011 and provided temporary solutions to utility conflicts with a full resolution planned to come via future ASI. ASI 21, which addresses these issues, was uploaded to Constructware on 3/21/12 by Eric Zagol for design approval. A CR for this work will be issued in the near future.

U-0129	**Sewer Conflicts @ Second and Natoma**	**Closed**	**04/13/2011**	**04/25/2011**	**04/28/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared is unable to excavate/shore/install the 18" VCP from the existing manhole at Sta 0+45 to MH#301 at Sta 0+81 as shown on sheet U-3010.
While excavating for the sewer installation M Squared encountered several unknown utilities which were unmarked and not shown on the contract drawings. Also, some of the known utilities are at different locations and elevations than indicated on the drawings. Due to the quantity and proximity of these utilities it is not possible excavate and shore between MH#301 and the existing MH at Sta 0+45.
Additionally PGE have yet to relocate their gas and electric utilities out of the area of the proposed MH#301.
See attached drawings illustrating M Squared's pothole findings.
Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/27/2011: AECOM has reivewed the information provided and requests a meeting with W/O and M Squared to review the data, review the demolition and construction sequencing shown in AECOM plans, and further understand why excavation and shoring is not possible.

U-0129.1	**Sewer Conflicts @ Second and Natoma**	**Closed**	**05/02/2011**	**05/12/2011**	**06/03/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Per response to RFI#U-0129 Webcor/Obayashi, M Squared and AECOM met on 4/29/2011 and discussed why the sewer line between MH#301 and the existing manhole at Sta 0+45 could not be installed with normal

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/2/2011 Revised contract documents will be provided via ASI 011 to address conflicts between MH#301 and STA 0+45.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

means and methods. M Squared remove the plates from their investigative pot hole trench on 5/2/2011 for AECOM to further review and understand the existing conflicts.

Please provide AECOM's findings from these meetings and provide direction on how to proceed with the sewer installation in this location.

Between MH #301 and MH #302:

1. Continue to perform subsurface investigations and submit location and elevation information for existing sewer laterals at the proposed connection to new sewer in accordance with Key Note 1 prior to construction.
2. Verify via pre construction TV inspection in accordance with Specification Section 33 31 10 that all active sewer laterals are shown on U-3010 and have been located in the field.

U-0130 **Sewer Removal On First Street** **Closed** **04/15/2011** **04/25/2011** **04/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

During the weekly Utility Relocation OAC meeting on 04/12/2011 Eric Zagol with AECOM informed Webcor/Obayashi that new drawings for the removal of the existing sewer on First street had been issued on 04/08/2011. To date Webcor/Obayashi has not received these drawings.

Please advise the status of these drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kevin Chiu 4/21/2011: See CR U-022 transmitted on 4/18/2011 to W/O's document control email for ASI No. U-006 which contains the requested information.

U-0131 **Minna St PG&E Duct Bank Termination Points** **Closed** **04/19/2011** **04/29/2011** **04/22/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Michelle Smith **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

PG&E has confirmed Trinet is to terminate the PG&E duct back 3' outside the east and west walls of manhole 1319. Please confirm that the termination points of the PG&E duct bank as described will fulfill Trinet's scope of work and the future completion of the duct bank will be performed by PG&E.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/21/201:1 Joint Trench termination points at EMH 1319 and 1318 are as follows:

1319 East wall; PG&E would like the conduit capped and left 3 feet short of the vault with concrete encasement 15 feet short of the vault.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please note terminating the duct bank 3' outside the west wall of MH 1319 will leave the end of the ducts directly under the 24" high pressure water main. This may create an issue with future access for complete the duct bank by PG&E.

Please advise.

1319 West wall; PG&E would like the conduit capped and left 6 feet short (or 1-foot clear of existing 24-inch water, whichever is greater) of the vault with concrete encasement 15 feet short of the vault.

1318 North wall; PG&E would like the conduit capped and left 3 feet short of the vault with concrete encasement 15 feet short of the vault.

The new termination points shall be considered as the limit of new conduit installation at EMH 1319 and 1318.

U-0132 **Minna St Sewer Pressure Test** **Closed** **04/20/2011** **04/30/2011** **04/27/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The SFDPW inspector Jason Chin has advised Trinet that he will be requesting a pressure test of the newly installed 18" and 24" VCP sewer main. The contract specification and drawings to do not specify any form of testing for the sewer mains.

Please advise if pressure testing of the sewer main will be required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/26/2011: Test sewers in accordance with the contract documents. See specification sections:

034010 3.1 E

CCSF DPW Standard Section 319 Low Pressure Testing per 333110 1.2 A.

333110 1.4 C

333110 3.7

333110 3.8 B

333110 3.9

Provide TJPA Representative and SFDPW inspector 72 hours of advanced notice prior to testing.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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U-0132.1	**Sewer Main Pressure Test**	**Closed**	**05/07/2011**	**05/17/2011**	**05/11/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Trinet has been advised by Mission Clay (the VCP manufacture) that the hydrostatic test described in the SF Standard Specification Section 319.02 is primarily for cast iron or ductile iron pipe and is not recommended for clay pipe. The National Institute of Clay Pipe and Mission Clay recommend a low pressure air test in accordance with ASTM C 828. See attached copy of ASTM C 828. Trinet proposes using this low pressure air test in lieu of the 10psi hydrostatic test called for in the standard specifications. The low pressure air test will allow test on pipe runs with no service laterals ie: MH501-502, 206-207, 203-204, 202-201. Please advise if this is acceptable.

With regards to the three remaining pipe runs that have lateral connections, please provide direction of how to plug the laterals if required to test the main lines.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

=======UPDATE 5/23/2011========

Kevin Chiu 5/23/2011 Below are links to devices for testing newly installed sewer pipes, specifically for main lines with active lateral connections that have been suggested within conversations between SFDPW, SFPUC and AECOM

http://newsite.cherneind.com/pneumatic/Long_Test_Ball_MS2_Test_Ball/

http://www.munipipe.com/chemical_grouting.html

http://veoliaes-is.com/Services/Environmental-and-Waste-Management/Total-Sewer-Management/Chemical-Grouting

Whether or not the contractors decide to utilize these devices is still up to them, as these are suggestions, not specifically required devices to be used for testing. It is the contractor's responsibility to perform testing on newly installed main lines, laterals, and manholes with their own means and methods while still protecting new and existing utilities.

==========

Eric Zagol 5/10/2011 ASTM C828 air test is an acceptable method to test sewer pipe in lieu of hydrostatic testing.

U-0133	**Minna St Joint Trench Configuration and Alignment, Sta 2+24 to 1+62**	**Closed**	**04/20/2011**	**04/30/2011**	**04/26/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

During the installation of the AT&T ducts between Sta 2+24 and 1+62 the AT&T inspector, Juan, instructed Trinet to remove two bends from the duct bank. AECOM

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/21/2011 Please provide the referenced "attached...revised AT&T duct routing" for review.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

was contacted and approved the layout in the field prior to Trinet proceeding. Attached is the revised AT&T duct routing required by the inspector.

Please confirm the revised joint trench alignment is acceptable.

U-0133.1 **Minna St Joint Trench Configuration and Alignment, Sta 2+24** **Closed** **04/26/2011** **05/10/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

During the installation of the AT&T ducts between Sta 2+24 and 1+62 the AT&T inspector, Juan, instructed Trinet to remove two bends from the duct bank. AECOM was contacted and approved the layout in the field prior to Trinet proceeding. Attached is the revised AT&T duct routing required by the inspector.

Please confirm the revised joint trench alignment is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/2/2011 Alignment of the AT&T ducts is acceptable as shown in the sketch provided.

U-0134 **Water Depatment Tie In Conflict at Howard and Beale** **Closed** **04/26/2011** **05/06/2011** **05/02/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The SF Water Department has determined they are unable to perform the water tie in at the south west corner of Howard and Beale because of a conflict with the existing sewer sludge force main. M Squared has pothole the line and confirmed it is the existing 10" concrete encased sewer sludge force main.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 4/29/2011: Cut and remove a section of the existing 10-inch sludge line to allow SFWD to perform the water main connection. Coordinate with SFWD to determine the extent of the existing sludge line to be removed.

Plug the ends of the existing 10-inch sludge line with concrete per 02 41 00 3.6 A.

The existing sludge line to the north will be demolished per TG04.6.

Webcor/Obayashi Joint Venture

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The connection of the new sludge line to the existing sludge line (south) per TG04.6, shall be made south of the plug.

U-0135 **4" Water Service @ 1st and Natoma** **Closed** **04/27/2011** **05/07/2011** **05/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While excavating for the 6" service connection to the new water line on First Street at Sta2+25 M Squared located an additional 4" ductile iron service that is connected to the existing water main. This 4" line is not shown in the contract documents.

SFWD records show this to be a live service and would like for this to be tied into the new main.

There is now no point of connection on the new water line to receive this 4" service.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/2/2011 Retap the existing 4" service to 500 Howard St. Coordinate service location with SFWD inspector. Submit piping plan showing the 4", 6" and 1" services for review.

Kevin Chiu 5/4/2011 Pending approval by the TJPA, a CR will be issued.

U-0135.1 **4" Water Service at First and Natoma** **Closed** **05/09/2011** **05/19/2011** **05/10/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In response to RFI #U-0135, see attached piping plan, as requested in RFI response.

Once approved M Squared will coordinate with SFWD to perform the work.

An expedited response is required as this is holding up all other water work on Natoma Street

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/10/2011 With the understanding that the 12" main, 12" GV, 6" service and 1" service are already installed, furnish and install 4" GV and DIP service and connect to 12" main per piping plan.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0136	**Existing Water Bypass @ Howard and Fremont**	**Closed**	**05/03/2011**	**05/13/2011**	**05/05/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While planning for the water tie in at Howard and Beale the Water Department discovered that there is an existing bypass line that will connect the existing water system (which is to be abandoned) to the new water system. This bypass is not shown on the plans. The Water department has requested that the existing bypass be excavated and plated so it can be cut and capped while they have the line shut down for the tie in on the new system at Howard and Beale the night of 05/04/2011.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/4/2011 RFI is not accruate and locations are incorrect.

Based on a field meeting with W/O ,SFWD Inspector and AECOM on 5/3/11, SFWD identified an unforeseen existing bypass pipe and gate valve that connects the existing 8-inch main in Fremont Street (to remain) to the existing 8-inch main in Howard Street (to be abandoned). The existing 8-inch main in Howard Street will be abandoned once the new 12-inch main is Howard is active.

Once the new 12-inch main in Howard Street is placed into service and the existing main is abandoned, the existing bypass and gate valve from the existing 8-inch active Fremont main will be connected to the abandoned Howard Street main. To mitigate the situation the SFWD proposes to cut and cap the existing bypass such that the existing Fremont main is not connected the abandoned main in Howard Street.

Coordinate with SFWD to locate existing bypass and define the limits of excavation required to cap the existing bypass.

Excavate to expose bypass. Shore and plate per specifications. Restore per specifications.

Cutting and capping of the existing bypass will be by SFWD.

Kevin Chiu 5/4/2011 Pending approval by the TJPA, a CR will be issued.

U-0137	**Verizon Ductbank conflict w/MH 701**	**Closed**	**05/03/2011**	**05/13/2011**	**05/10/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

M Squared's sewer potholing on Beale (Sta 0+30) has indicated a conflict between an existing Verizon duct bank and MH# 701 on Howard Street. See attached drawing. The ductbank is approximately 18" wide x 18" deep. It is 2'4" to the top and it is slurry encased.
Verizon underground locators have confirmed that this is live and serves Charles Schwabb building south of Howard on Beale Street.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/10/2011 Unforeseen condition, Verizon utility not shown in existing utility survey.

As suggested by Noel of (M Squared) during a site visit on 5/3/11 with W/O and AECOM, based on Noel's discussions with Mike Roybal (Verizon Field Engineer) and confirmed by AECOM based on follow up discussions with Mike Roybal (Verizon) and Pam Brown (Verizon), coordinate with Verizon and remove existing concrete encasement from existing duct to expose conduit in area of conflict. As directed in the field by Verizon, remove concrete encasement around duct from area in conflict to adjacent Verizon manhole. Move and support exposed Verizon conduit as required and directed by Verizon to construct manhole.

Coordinate with Mike Roybal (Verizon) at (415) 716-6736 such that a Verizon representative is present during the Verizon duct concrete encasement removal, moving and support install.

Restore Verizon duct to match existing concrete encasement following completion of sewer manhole.

U-0138 **Temporary Telecom Pole Layout in Lot N and N'** **Closed** **05/09/2011** **05/19/2011** **05/10/2011** **Potentially** ☐

From: Webcor Construction LP Joanne Filipas **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Reference attached layout and submittal package#TG0406-014:

Due to the future use of lot N and N' prime, the temporary telecom poles must be relocated. The attached sketch indicates the proposed layout of these poles which has been coordinated with AECOM. Submittal Package#TG0406-014 has been submitted for formal approval of the pole locations.

Please confirm relocating the poles is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/10/2011 The pole alignment changes requested by CMGC along with additional requests from Telecommunications companies has required a pole and pole placement redesign. An ASI has been generated for the redesign with a CR forthcoming.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0139	**Existing Water Line on Beale in Conflict with New Sewer**	**Closed**	**05/09/2011**	**05/09/2011**	**05/10/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Today while trying to execute the USAR for the existing 12" water line on Beale Dan Helminiak with SFWD informed Webcor/Obayashi and M Squared that the existing water line will remain active until the water tie in at First and Natoma is completed and the existing 8" is capped at First and Howard as shown on sheet U-3116.

The water tie in and capping of the existing line on First Street is currently being delayed by separate issues and it is unclear when this work will be completed.

Dan Helminiak suggested that the existing 8" water line running down Howard could be capped by the water department at one of the existing tees which would allow the decommissioning of the existing line on Beale.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/10/2011 Please clarify the question(s).

Subject states "Existing Water Line on Beale in Conflict with New Sewer". Per U-1124 Demolition and Construction Sequence order, Beale Street sewer is to commence after existing water main in Beale Street is abandoned. Please clarify where and what the conflict is.

Also, please confirm the following:

1. Is the new 12" main along Howard Street between First and Main streets active?
2. Is the new 12" main along Beale Street north of Howard Street active?
3. Is the new 12" main along Beale Street south of Mission Street active?

U-0139.1	**Cap (E) Water on Howard @ Beale**	**Closed**	**05/16/2011**	**05/26/2011**	**05/24/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

-New 12" water main along Howard between First and Main is active.
-New 12" water main along Beale Street North of Howard is active.
-New 12" water main along Beale Street South of Mission is active.

Per U-1124 Demolition and Construction Sequence order, Beale Street sewer is to commence after existing water main on Beale is abandoned.
- The old water line on Howard Streets and Beale Streets is currently not active because the valves on the line at First and Howard are currently shutdown. Dan from the water department has expressed his concern that anyone can just open these valves and fill the old line along Howard Street. He is also concerned that the valve is not 100% closed and that the SFWD cannot get a complete shutdown on the old line. This means when M Squared

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/23/2011 Coordinate construction of the cap on the old Howard St. main at the intersection of Main St. with SFWD as shown on U-3119.

Coordinate construction of the cap on the old Howard St. main at the intersection of First St. with SFWD as shown on U-3116 (latest rev per SK-U-0003 1/28/11).

Per discussions with SFWD inspector, the old Howard St. main has been capped at Main St, Beale St. (south of the cross) and at the Fremont St. by-pass connection by SFWD. Additionally, the two line gates at First and Fremont streets are closed and have been filled with concrete.

The caps at Main, Beale, Fremont in combination with the closed line gates at First St. will allow sewer installation on Beale St. to proceed.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

removes the old water line on Beale Street in order to install the new sewer, it is possible that there will be a constant flow of water in the old line.

The suggestion from Dan is to cap the old water line on Howard Street so that When M Squared removes the old line on Beale Street there will be no possibility of water flow. A cap on the line at Howard would also confirm for definite that the old line on Howard and Beale Street is "abandoned".

Please provide direction for capping the existing water line on Howard so the sewer installation on Beale can proceed.

U-0140 **Proposed Changes by BLHP to S/L Conduit Run @ 2nd & Minna** **Closed** **05/11/2011** **05/21/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

During a field meeting on 5/10/2011 with Eric Zagol, AECOM and Robert Kawano, BLHP to discuss the alignment of the conduit run from 2nd St to the relocated S/L pole @ Stn 2+89, Robert Kawano asked that a splice box be installed in the sidewalk downstream from the connection point to PG&E¿s manhole. The box would serve as the connection point for BLHP to PG&E¿s power supply from 2nd St for the street light. Because of an existing sidewalk basement, which is located along the north side of Minna, east of 2nd St., it was agreed in the field that the splice box should be placed in the sidewalk just west of the new fire hydrant located @ Stn 0+93. There is already a pocket constructed in the sidewalk basement to accommodate the fire hydrant and Trinet will locate the splice box within this pocket structure. A sketch is attached depicting the proposed alignment of the conduit run and the additional splice box as discussed in the field. Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/19/2011 Per BLHP's request, furnish and install a CCSF DPW precast pullbox, cover, and lid per CCSF DPW Standard Plans and Specifications between the PG&E supply point and the relocated street light pullbox along Minna Street east of Second Street.

Location; confirm that a sidewalk pullbox will fit in the knock out space above the 121-123 Second St. sidewalk basement adjacent to the newly installed fire hydrant prior to construction.

Maintain minimum bends in conduit run per Specification 33 71 00.

U-0141 **Street Light Connection Point at Second and Minna** **Closed** **05/16/2011** **05/26/2011** **05/20/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In the response to our RFI # U-0016, Trinet was directed to connect the street lighting conduit on the west end of Minna into PG&E MH #1319 on 2nd St. At a field meeting on 5/10/1 with Eric Zagol and Robert Kawano, to discuss the alignment of the street lighting run for the relocated light on the west end of Minna, Eric advised that PG&E was contemplating a change in the connection point for this conduit run from MH 1319 to MH 1320. MH #1320 is located to the south of 1319 and further west towards the middle of 2nd St. Please confirm the connection point on 2nd St for the street lighting conduit.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

5/26/11 UPDATE

Supply point has been confirmed as PG&E EMH 1320. Coordinate connection location with PG&E Field Engineer.

Eric Zagol 5/19/2011 Related to Joint Trench changes and PG&E's de-energization of Minna Street after the response to RFI U-0016 was provided, PG&E has revised their electrical plans with respect to EMH 1319 and has indicated that the preferred location for new street light power would be EMH 1320.

In accordance with U-3201 Note 7, AECOM considers this RFI as the request to coordinate connections with BLHP and PG&E through the TJPA representative for new street light circuit connections. AECOM and the TJPA Representative are in the process of coordinating Street Light Service Orders with BLHP and PG&E. Once the Service Order is processed the final connection point will be provided.

U-0142 **Concrete Specifications for Sidewalk Replacement @ 555 Mission** **Closed** **05/16/2011** **05/26/2011** **05/18/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

The sidewalk concrete @ 555 Mission (on Minna) is not the typical San Francisco sidewalk mix design. It is a colored concrete with what appears to be a sandblasted finish. Please provide the concrete specifications for repair and/or replacement of the sidewalk in this area.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kevin Chiu 5/18/2011 Sidewalks shall be constructed of a dark gray, Hi-con @ 5 lbs. per cubic yard carbon black based concrete finish, with 25 to 30 lbs. per 100 square feet of silicon carbide sparkle grains. The surface of the concrete shall be washed and rinsed using a stiff brush, and if necessary shall be sandblasted to remove the concrete surrounding the aggregate to minimum depth of 1/8 inch.

U-0143 **Demolition of PG&E Duct Bank Alongside (N) 18" Sewer Main on Minna** **Closed** **05/16/2011** **05/26/2011** **05/20/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

During excavation and shoring for installation of the 18" Sewer main along Minna St., between the (E) electrical vault @ Stn 1+80 (demolished) and (N) manhole # 201, Trinet was unable to save the entire length of the existing PG&E duct bank (currently abandoned), which runs along the south side of the sewer trench. Between stations Stn 0+95 and 1+25 (approx.) the duct bank had veered into the sewer trench and had to be demolished - see attached sketch. Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/19/2011 U-1107 (rev 2 3/16/11) indicates that the existing 6-4" PG&E duct is to be protected in place.

2 of the 6 existing 4" conduits will be utilized by PG&E to provide temporary construction power to W/O Skids 1 and 2 along Minna Street.

Mandrel existing conduits east of STA 1+25 to STA 1+70 (where new conduit caps were to be installed per contract) to confirm that the existing conduits that were to be protected in place have no blockages.

Coordinate with PG&E as STA 0+95 is exposed to determine which 2 of existing 4" conduits will be utilized for temporary construction power.

Furnish and install 2-4" conduits concrete encased to replace those that were removed during sewer construction. Connect new conduits to existing that will remain to provide temporary construction power.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0143.1	**(E) PG&E Duct Bank from EMH #1320 to Demolished EMH #1355**	**Closed**	**06/14/2011**	**06/24/2011**	**06/14/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

After further investigation of the existing PG&E duct bank between EMH #1320 and demolished EMH # 1355 (@ Anchor & Hope), Trinet found that there is only one unobstructed conduit between the two manholes. The unobstructed conduit is the one that already had a pull rope in place. Trinet had demolished a section of this conduit during excavation for sewer MH # 201 because it was in conflict with the shoring. Trinet replaced the damaged section (approx. 8 LF) on Saturday 6/1, and reconnected the pull rope in the conduit run. A sketch of the conduit run, depicting the section replaced, is attached. Please review and advise if one 4" conduit will be adequate from EMH #1320 to the west end of

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/14/2011 PG&E plans to use the existing conduit package to provide temp power to Skids 1 and 2. Mike Balmy of PG&E was notified and has confirmed that only 1-4" unobstructed conduit is required between EMH1320 and the cap at demolished EMH1355 for future temp power service.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

demolished EMH #1355.

U-0144 **PGE Vault conflict with 24" VCP on Beale** **Closed** **05/17/2011** **05/27/2011** **05/20/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

PG&E confirmed the location of the inside of the east wall of PG&E manhole 1702 at Howard and Beale Street. Allowing for a 12" thick wall, the vault will be in conflict with the proposed alignment of the future 24" VCP, even with moving the alignment 1' further east as directed in RFI U-0124. The conflict could be avoided by moving the alignment another 6" further east. However this will cause a conflict between manhole #701 and the existing 14" AWSS. Additionally the Verizon duct bank conflict increases(RFI#U-0137).
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/19/2011 As discussed in the field on 5/18/11 with Jason Dunne (W/O) and Noel McCarthy (MSquared) the exact location of the existing PG&E MH outside wall and the existing AWSS is currently unknown.

Adjust locations of MH#701, MH#702, MH#704 and sewer alignment east as required (~6" as mentioned) for the 24" VCP installation (new and future) to avoid the existing PG&E MH however not in conflict in conflict with the existing 14" AWSS line.

Note, the existing AWSS line will be abandoned North of Beale Street STA 1+10.

Confirm alignment (2-10" VCP and future 24" VCP) will clear existing AWSS valve at STA 0+70.

U-0144.1 **PG&E Vault conflict with 24" VCP on Beale** **Closed** **06/30/2011** **07/10/2011** **07/01/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

In response to RFI U-0144, please note that M Squared confirms the following:

2-10inch VCP and future 24inch VCP will clear existing AWSS Valve at Sta 0+70.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kevin Chiu 7/1/2011 RFI does not request additional information.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0145	**Sludge Main Conflicts with Existing Utilities**	**Closed**	**05/17/2011**	**05/27/2011**	**05/18/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please see attached pothole results for the new sludge main on Mission Street. Due to the quantity and location of existing utilities, and utility vaults/manholes it will not be possible to install the new 12" sludge main on Mission Street as shown on the contract drawings.

Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/18/2011 Please indicate which utilities were marked via the USA ticket and or those identified by other means.

U-0145.1	**Sludge Main Conflicts with existing utilities**	**Closed**	**05/18/2011**	**05/28/2011**	**06/07/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In response to RFI# U-0145, see attached with notes. M Squared has marked what utilities were located via USA markings and what ones have been located via the contract drawings. There are also several unknowns that could not be identified.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/7/2011 Revised contract documents will be provided via ASI 012 to address sludge line conflicts in Mission St.

U-0146	**Proposed Pavement Reconstruction Plan for Minna Street**	**Closed**	**05/17/2011**	**05/27/2011**	**05/23/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please find the attached sketch detailing Trinet's proposed pavement reconstruction plan for Minna St., between 1St to 2nd Streets. Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/23/2011 AECOM has reviewed the sketch provided and has the following comments in accordance with Contract requirements:

Confirm existing utilities to be demolished as shown on Demolition Plans have been demolished per Plans prior to final street restoration.
Provide FULL street restoration, curb to curb, in Minna St. West of the CDSM shoring wall (~STA 2+25) to Second Street in accordance with Contract requirements (DPW ORDER NO. 178,940 [superseding DPW ORDER 176,707] per specification SECTION 32 12 17)
Construct Curbs in accordance with DPW Stnd. Plan 87,169

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Construct Driveways in accordance with DPW Stnd. Plan 87,171
Construct Joints for Concrete Pavement Base in accordance with DPW Stnd. Plan 87,174
Per Contract specification SECTION 32 12 17, reconstruct curb returns at Second and Minna Per DPW ORDER NO. 178,940 (superseding DPW ORDER 176,707) Regulations for Excavating and Restoring Streets in San Francisco Section 9.4 B. Excavation affecting curb returns, stated as follows:

1. Any excavation (including trenchless technology) encroaching upon any part of an angular corner requires the installation or reconstruction of curb ramp(s) at the affected corner to current standards by the Permittee. Permittee's are encouraged to contact BSM Inspection Division to determine if curb ramps within a project are compliant or must be replaced at least 45 days prior to the commencement of any work.

2. Curb ramps must be constructed in accordance with current City standards (Drawing Nos. 55,017 Rev. 3; 55,017.1, 55,018 Rev.3; 55,018.1; 55,018.2; 55,018.3 "Exception to Standard Curb Ramps") (Appendix 5).

U-0146.1 **Proposed Pavement Reconstruction** **Plan for Minna Street** **Closed** **05/27/2011** **06/06/2011** **05/27/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Attached, please find a sketch detailing Trinet's revised pavement reconstruction plan for Minna St., between 1St to 2nd Streets, which incorporates Balfour Beatty's request that Trinet stop the new pavement section 5' north of centerline of the CDSM shoring wall (2' north of demarcation line).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

*** 5/31/11 Revision ***

Restore entire width of Minna street using concrete road base and ACWS curb to curb in accordance with Contract drawings and DPW Order No. 176,707 (and latest revision 178,940) Section 11.

5/27/11 Response:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please provide BBIIs traffic control plan and construction logistics plan for Minna St. during pre-trenching and CDSM shoring wall construction.

AECOM's specific questions are as follows:

1. What portion of Minna St. will be maintained for vehicular traffic during pre-trenching and CDSM wall construction? Please provide dimensions from face of north curb along Minna St.
2. Is a traffic barrier (k-rail or other) planned to be installed along Minna St. during pre-trenching and CDSM wall construction? Provide location, dimension from face of north cur along Minna St.
3. If a traffic barrier is planned, what is the schedule for the installation?
4. Once pre-trenching is complete will any of the pretrenching trench area be restored and used for vehicular traffic?
5. Once the CDSM shoring wall is constructed will the traffic barrier move south and the vehicular area be widened? If so by how much? Please provide a dimension from the face of north curb along Minna St.

This information is critical in order to provide a responses to this RFI as well as RFI U-147 and U-148 in an effort to determine how RUP will restore Minna St.; crowned or sloped, and how the Minna St. restoration conforms to the future Transit Center Minna St. design.

U-0146.2 **Pavement Reconstruction Plan for Minna Rev 2** **Closed** **06/02/2011** **06/12/2011** **06/07/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please find attached a revised (Rev2) pavement Reconstruction Cross Section drawing for Minna St., which details Trinets understanding of the Engineer's latest response to RFI#U-0146.1 and RFI#U-0147. Please

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/7/2011 Street restoration detail is acceptable with the following corrections:

1. The southern extent (limit) of concrete base and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

confirm pavement reconstruction can proceed per the attached detail..

ACWS between STA 2+30 and First Street shall be based on U-5101 Detail 6 and the limit of excavation required to do perform the Demolition and New utilities work in Minna Street. Conform to final saw cut lines as indicated in Detail 6.

U-0147 **Existing Top-Of-Curb Grades @ Minna Driveways for 575 Mission Building** **Closed** **05/27/2011** **06/06/2011** **06/01/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The existing driveways entering the 575 Mission St building, are depressed between 2 ½" to 3" below the adjacent top-of-curb and sidewalk grades - see attached drawing depicting the driveways. This condition seems to be a consequence of repeated overlaying of Minna street, which has resulted in a curb height in many areas far less than the City standard of 6 inches. The street grade along the north side of Minna along the 575 Mission building ranges from 3 ½ to 4 ½ inches below top-of-curb grade.

Trinet has been directed in the field by Jason Chin, and by the Engineer in RFI #U-0146, to construct the new roadway with finish grade at curb line 6" below top-of-curb grade. This is consistent with City standard plan # 87,169. The new roadway grades will result in 3" to 3 ½" of exposed curb height at the driveways to 575 Mission, which is considerably deeper than the 1" called for in the San Francisco standard plans for driveway construction (plan # 87,171). It will also not be possible to raise the street grade at the driveways without impeding road runoff drainage and causing ponding.

Please review and advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 5/31/2011 Restore pavement along existing curbs and driveways along the north side of Minna St. in accordance with Contract drawings and DPW Order No. 176,707 (and latest revision 178,940) Section 12 to match existing flow line elevations at curbs and driveways shown on U-1001. 6-inch curb and driveways along Minna St. will be reconstructed at a later date as part of the Transit Center Project.

U-0148 **Pavement Reconstruction Plan for West End of Minna Street - Stn 2+15 to 2nd St** **Closed** **05/27/2011** **06/06/2011** **06/07/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

Please provide a pavement reconstruction drawing, or typical cross section detail, for the west end of Minna St from Stn 2+15 to 2nd St. Trinet had planned to reconstruct the street in this area from curb to curb. We find however, that there is a grade difference of approximately 6 inches between top-of-curb on the north side of the street and the south side, with the south side being at the higher grade. The construction detail approved in RFI #U-0146 (Trinet #094) cannot be utilized in this area, because the street already has a cross slope of approx. 2% from south to north.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/7/2011 See response to RFI 146.2

U-0149 **MH#701 Conflicts with existing utilities** **Closed** **05/27/2011** **06/06/2011** **06/09/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The 14" AWSS line west of MH#701 was found to be constructed thru the roof of the existing 3x5 sewer. Several bends were used in the AWSS line construction and these bends included lugs and tie rods. As a result of the presence of these tie rods and fittings we can now not move MH#701 any further west.
To install the new 24" VCP in a straight line (perpendicular to MH wall), and in order to get by the existing PGE MH we will have to pour the pipe wall and 2" of the internal diameter of the pipe into the west wall of MH 701.
Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/8/2011 Deflect VCP pipe joints in accordance with ASTM C425 (max 1.8 degrees per joint) to allow for 6" of deflection to avoid the existing PG&E MH and connect to MH#701 as shown in the attached SK-U-0019.

Confirm in the field that 6" deflection will allow the 24" VCP to be clear of the MH wall.

U-0149.1 **MH#701 Conflicts with existing utilities** **Closed** **06/30/2011** **07/10/2011** **07/01/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

In response to RFI U-0149, please note the following:

M Squared confirms that 6inch deflection of the VCP will allow the 24inch pipe to be clear of the manhole wall.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kevin Chiu 7/1/2011 RFI does not request additional information.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0150	**Proposed Correction to Field Condition Report 40C**	**Closed**	**05/31/2011**	**06/10/2011**	**06/01/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please see the attached detail from Trinet Construction Inc for their proposed solution to mitigate the incorrect installation of CB203 identified in Field Condition Report 40C.

Please advise if the proposed solution is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/1/2011 The proposed solution has been reviewed and approved by SFDPW BOE and is acceptable. Construct catch basin as shown in the Trinet proposed construction detail attached to CR40C. Construct the clean out on the cast iron trap such that it is accessible from above for maintenance via removal of the grate . Coordinate inspection during installation with DPW BCM inspector through the TJPA's Representative.

U-0151	**Additional Sewer Lateral Connection for 100 1st Street**	**Closed**	**06/02/2011**	**06/12/2011**	**06/08/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Trinet has discovered an additional sewer lateral for the 100 1st Street building which was not connected to the new 24" sewer main - see attached sketch. The lateral is located at sta. 7+09 and services a single toilet and the rear of the building. This lateral was not shown on the plans and there was no vent in the sidewalk to indicate the existence of a lateral. Trient potholed the lateral in the sidewalk and a 4" cast iron lateral, a 4" cast iron trap and a 4" cast iron vent pipe capped 2' below grade. Please confirm Trinet is to tie the lateral into the new 24" sewer main on Minna. Also, please advise what is to be done with existing cast iron trap and vent pipe assembly which are not up to current DPW standards.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/8/2011 In accordance with U-3000 General Note 12, contractor was to verify that there are no active sewer lateral connections to the existing sewer prior to sewer demolition.

Please provide the elevation of the existing sewer lateral and the location of existing 4" cast iron vent pipe for review.

Renewal of this lateral will be discussed with TJPA and 100 First St. property owner, final direction forthcoming.

U-0151.1	**Additional Sewer Lateral Connection**	**Closed**	**06/29/2011**	**07/09/2011**	**07/05/2011**	**Potentially**	☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

This is a follow-up to the request by the Engineer in his response to W/O RFI #U-0151 (Trinet RFI #097) for

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 7/5/2011 In reference to RFI-151 and 151.1:

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

additional information relating to the 2nd sewer lateral connection for the 100 1st St building. Trinet also clarifies the issue of the existing 4" trap on the line, which was raised in the original RFI.

The sewer lateral is located @ Stn. 7+09 and the invert elevation of the 4" cast iron sewer lateral pipe at face-of-curb is 14.6'. The elevation for the top of the new concrete encased ductbank @ Stn 7+09 is 13.85'. The sewer lateral was therefore not in conflict with the new joint trench utilities.

With regards to the existing 4" trap on the line, Trinet checked with the SF Plumbing department which adviced that a 4" cast iron trap was adequate for a 4" sewer lateral. The existing trap was therefore in compliance with the SF plumbing code. Trinet advised Jason Chin of this in the field and he agreed that the trap did not need to be replaced.

The 4" cast iron vent pipe for the trap did not extend to street level but was capped-off approximately 18" below grade. Per field discussions with Jason Chin, Trinet extended the trap vent piping to grade and installed a street vent frame & cover in the sidewalk.

1. Reconnect existing lateral to new 24" Minna St. sewer in accordance with SFDPW Standard Plan 87,196.
2. Extend fresh air inlet and air inlet cover to existing sidewalk grade.

U-0152 **Alternate Manhole Testing Method** **Closed** **06/02/2011** **06/12/2011** **06/07/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Spec section 03 40 10 3.1 E directs the contractor to test all manholes hydraulically by exfiltration testing.
M Squared proposes the use of the vacuum method of testing manhole sections instead of the above method (See attached)
This vacuum method is in accordance with ASTM C1244.

Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/7/2011 Vacuum method in accordance with ASTM C1244 is acceptable for testing of sewer manholes.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0153	Concrete Slab and Rail Ties Conflict with Sludge Line on Howard	Closed	06/03/2011	06/13/2011	06/21/2011	Potentially	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While potholing for the sludge line alignment along Howard Street between Beale and Main at Sta 18+00 and Sta 19+42 M Squared discovered the presence of wooden rail ties and concrete slab (see attached photos).
These are possibly the same ties and slab that M Squared encountered while installing the water line on TG04.3.
They are in direct conflict with the proposed location of the new sludge line along Howard Street.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/21/2011

*** 6/21/11 Update ***

Based on follow up discussions with W/O and M2, and further understanding of the extents of the concrete slab and wooden rails ties found further West (Howard and Fremont streets TG04.3), remove and dispose of concrete and wooden rail ties as required to construct 12" sludge line.

Eric Zagol 6/8/2011 Pothole at STA 18+00 to determine the extents (southern and northern) of the concrete slab and wooden rail ties. Submit pothole data for review.

U-0154	Electrical Service for Street Lights on Natoma	Closed	06/08/2011	06/18/2011	09/01/2011	Potentially	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Chris Lotti

Co-Author:

REQUEST:

Per Sheet U-1120 the electrical service feeding the street lights on Natoma is to be demolished, see attached. This conduit has been exposed through the investigative trenching process on First, confirmed dead and remove. As a result the existing street lights on Natoma are without power. There are no details provided in the plans for reestablishing power to these street lights now that the demo is complete.

Please advise.

SUGGESTION:

Eric Zagol 6/20/2011 Natoma Street street light power renewal to be addressed via ASI 014 forthcoming.

ANSWER: **Accept Suggestion:** ☐

Change Request No. U-043R1 -Renew Natoma Street Light Power Supply (ASI No. 014) [30100.03] - Force Account issued 9/13/2011.

U-0155	AWSS Cast In Place Concrete Testing	Closed	06/20/2011	06/30/2011	06/28/2011	Potentially	☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

The AWSS Specification section 03300-2, Cast-In-Place Concrete 1.5 C (Quality Assurance) states that the concrete testing will be performed by an agency employed by the TJPA.

However, 03300-10, 3.9 B (Field Quality Control) states that the concrete testing will be performed by the City Testing and Inspection Agency.

Please advise who will be preforming the cast in pace concrete testing.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Kevin Chiu 6/28/2011 The TJPA employed testing agency will provide concrete testing per 03300-2, 1.5C.

Michael Smith's (SFDPW) response, "TJPA can have testing performed or set funding in place for testing by SFDPW's testing lab," dated and signed on 6/27/11 (see attached).

U-0156 **Sink Hole under road base at MH#701** **Closed** **06/21/2011** **07/01/2011** **06/22/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While excavating for MH#701 M Squared discovered what appears to be a large void under the street base adjacent to the west wall of the MH#701. We estimate the void to be approximately 3' wide and 12' long. This may be a hazard as the street base may collapse at some point in the future.

Please advise how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 6/22/2011 Unforeseen existing condition not clear if directly related to the Relocation of Utilities Project work.

AECOM suggests that the existing pavement be removed over the area of the sink hole and conditions be evaluated.

Once existing utilities are determined to be secure, backfill with a sand cement slurry and restore pavement in accordance with SFDPW Standard Plans and Specifications.

Kevin Chiu 6/22/2011 Coordinate repair of sink hole with TJPA representative. Repair work to be paid under CR U-039

U-0157 **Pressure Testing for Sewer Manhole #'s 501 & 502 on 1st St.** **Closed** **06/28/2011** **07/08/2011** **07/08/2011** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

This RFI is a follow-up to discussions in the field with AECOM and the SFDPW Inspector and Trinet, regarding Trinet's inability to perform a pressure test on sewer manholes 501 & 502 on 1st St. due to field conditions. MH #502 is constructed around the existing 3x5 brick sewer on one side (per SF Standard Plan #87,184) and Trinet has no means of plugging the brick sewer effectively to withstand a pressure test.

In the case of sewer MH #501, the original design was similar to MH #502 and a pressure test would not have been possible. The revised design (see attached drawing) includes a temporary 24" corrugated PVC pipe stub extending south from the manhole and connecting to the existing 3x5 brick sewer. The inside of the temporary 24" pipe stub is also corrugated, and therefore cannot be sealed with an inflatable pipe plug, as would be required to perform a pressure test of the manhole structure.

Please confirm that a pressure test will not be required for sewer manholes 501 & 502 on 1st St.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 7/8/2011 Confirmed. Pressure tests for sewer manholes #501 and #502 are not required due to the restrictive conditions.

U-0158 **MH #301 Location** **Closed** **07/15/2011** **07/25/2011** **07/20/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

During our sewer work at 2nd and Natoma M Squared discovered that the Telecom Vault shown on the drawings is in fact significantly larger in the field than is shown on the plans. In order to be able to shore for MH#301 construction M Squared has had to move the location of MH four (4) feet east along Natoma. As a result the jack and bore alignment is now a few inches south of what is shown on the plans.

Please confirm that these adjustments are acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 7/20/2011 Adjustments proposed are acceptable.

Since the adjustment pushes the MH and cover into the crosswalk path of travel, in lieu of CCSF DPW Standard MH cover, provide an ADA complainant cover that meets the following specifications:

1. MATERIAL - The cast iron shall be in accordance with ASTM "Standard Specifications for Gray Cast Iron Castings" Designation A 48, Class 30. The tinsel strength shall be considered the primary test for qualification.
2. FINISH- STANDARD FINISH SHALL BE RAW, AS

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

CAST, AND YIELD A MINIMUM COEFFICIENT FOR FRICTION OF .6 OR BETTER IN WET OR DRY CONDITIONS.
3. CASTINGS - SHALL BE FREE OF BLOW HOLES, FLASHING, GRIND MARKS, AND OTHER SURFACE BLEMISHES.
4. Cover shall incorporate a "pic-hole" for lifting purposes.
5. ADA COMPLIANCY- CASTINGS SHALL HAVE HOLES NO GREATER THAN ½" IN THE DOMINANT DIRECTION OF MOTION, NO VERTICAL RISE OF GREATER THAN ¼", IF THE RISE IS GREATER THAN ¼" THE RISE/RUN RATIO NEEDS TO BE 1;2 AND THE MAXIMUM HEIGHT SHALL BE 1/2".
6. Cover shall BE MADE TO FIT EXISTNG FRAMES OR be MACHINED to FIT EXITING FRAMES PER SFDPW STANDARD PLAN 87,190.
7. Cover should be MADE of quality EQUAL TO OR GREATER then THE PRODUCTS MADE BY D&L Foundry or Equal, see attached product data sheet.

U-0159 **Unknown Concrete Structure In Conflict with Sludge Line on Mission** **Closed** **07/28/2011** **08/07/2011** **08/16/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While potholing at the locations shown on the attached drawing M Squared discovered what appears to be a concrete wall under the parking strip. M Squared excavated both potholes 7' deep and at that depth the wall appeared to be continuing deeper. This concrete structure is in direct conflict with the proposed location of the new sludge main on Mission Street. The concrete curb on the north side of Mission St also extends 7' deep.

See attached pothole findings.

Please advise on how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/16/2011 In accordance with specification sections 000810 and 020630, please submit for review locations and findings for all potholes performed along Mission Street associated with the Sludge FM.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0159.1	Conflict with Sludge Line Conflict on Mission	Closed	08/26/2011	09/05/2011	09/13/2011	Potentially	☐

From: Webcor Construction LP Jacob Giannandrea **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In response to RFI U-159. See attached pothole findings from remaining potholes on Mission street. Also included is pothole data for Sta 17+28 and Sta 17+50.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

In response to RFI U-159 and 159.1:

For 12"Sludge FM on Mission at Beale St., information provided shows an existing unforeseen concrete wall 23" from the face of curb, the proposed 12" Sludge FM is shown 1' from the curb. Construct 12" Sludge FM between face of curb and existing concrete wall.

U-0159.2	Unknown Concrete Structure Sludge Line Conflict	Closed	09/15/2011	09/15/2011	09/21/2011	Yes	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In response to RFI U-159.1
There is not adequate space between the face of curb and the unknown concrete structure in order for a welder to be able to weld the bells of each piece of pipe.
Please advise on how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 9/18/2011 Demolish existing unknown concrete structure south of proposed alignment between STAs 17+25 to 17+75 as required at joints to facilitate welding. Expose unknown structure at joints, identify sections to be demolished and coordinate with TJPA Representative prior to structure demolition.

Jeff Thiel 9/21/2011 Pending approval by the TJPA, a CR will be issued.

U-0160	Location of Existing Sludge Force Main on Beale Street	Closed	07/29/2011	08/08/2011	08/02/2011	Potentially	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared has potholed for the sludge line on Mission Street at Beale at the location shown on the attached drawing. They have been unable to locate the existing 10" FM that they are to tie the new 12" sludge main into. The (E) Force Main is not in the location shown on the contract

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/2/2011 The existing 10" sludge FM in the vicinity bends down (~45+) to get under the existing 3'x5' sewer in Mission St. Record drawings show the depth of the 10" sludge FM where potholed at around 5', north of the 45 degree vertical bend.

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drawings.
See attached pothole findings.
Please advise on how you would like to proceed.

However, record drawings may not be reliable as was the case at Howard and Beale St. when excavating for the Beale St. water main connection where the 10" sludge FM was found at a location different than shown on the drawings.

Pothole for the existing 10" sludge FM at Beale St. STA 7+08 (10' north of current location) to ensure connection location is north of the vertical bend. Submit pothole data for review.

U-0160.1 **Location of FM on Beale Street** **Closed** **08/05/2011** **08/05/2011** **08/09/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Per response to RFI U-0160 M Squared continued its potholing at Sta 7+08 on Beale Street.
M Squared potholed 7' long x 4' wide and 8' deep and M Squared was still unable to determine the location of the existing FM.

See attached pothole findings.

Please advise how M Squared should proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/9/2011 Unforeseen mismarked existing utility via the USA process. Pothole for existing sludge FM at the location shown in the attached sketch.

U-0160.2 **Location of FM on Beale Street** **Closed** **08/11/2011** **08/21/2011** **08/24/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared potholed the location of the existing FM to the limits in the drawing provided in the
response to RFI U-0160.1. M Squared located the FM within this pothole.

See attached pothole findings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Unforeseen condition, location of existing Sludge FM in the field varied from that shown on the drawings. Refer to SK-U-0021 and SK-U-0022 attached showing the revised horizontal and vertical alignment to accommodate connection to Sludge FM as located in the field.

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Please direct M Squared how to proceed.

U-0161 **Unknown Concrete Structure in Investigative Trench** **Closed** **07/29/2011** **08/08/2011** **08/01/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared discovered an obstruction in the Beale Street investigative trench on station 2+55 approximately 25' west of centerline. The obstruction appears to be a 2'-3' thick concrete wall starting directly below the street base and extending down to an unknown depth. M Squared began demoing the obstruction yesterday believing it was part of a concrete encased PG&E trench. It is now known it is not part of any duct package.
Please advise on how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/1/2011 Unknown non utility structure. A similar structure was found in AECOM's subsurface investigation trench at Beale Street Station 2+80.52 as shown in Specification Section 020630 Appendix A.

Protect in place. Non utility structures (i.e. walls) within zone of CDSM shoring wall and Transit Center footprint are to be removed by Buttress/Shoring/Excavation (BSE) contractor.

U-0162 **Manhole #602 Orientation** **Closed** **08/03/2011** **08/13/2011** **08/09/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The PG&E manhole at Station 2+55 is actually further south than is shown on the drawings. As a result of this the new water main on Natoma Street was installed in a different alignment than shown on the drawings. In order to excavate and shore for the new Manhole #602, without damaging the new water main M Squared will have to install the manhole at a different alignment than what is shown on the plans. M Squared will maintain the correct internal manhole dimensions per DPW standard drawings.

Please confirm this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/9/2011 Construct sewer MH #602 to avoid existing water main as shown in the sketch provided. Maintain internal manhole dimensions, wall thickness, and steel reinforcement per DPW Standard Plans #87,182.

U-0163 **Utilities Demolition Plan** **Closed** **08/04/2011** **08/14/2011** **08/24/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

The submittal TG04.4 - UG1020-024100B01 Utilities Demolition Plan was returned to M Squared marked "Revise & Resubmit".
The review note was: Please provide demo and sequencing plan per specification 02 41 00 Part 1.3A.

M Squared is unable to acquire the necessary utility abandonment schedules from the utility companies concerned.
Please provide us with a schedule showing when each of the utilities is to be abandoned by the relevant agencies. Once this has been provided M Squared will be able to provide the sequencing plan per the specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The intent of the submittal comment was to reference specification section 024100 1.3A requiring the contractor to submit a utilities demolition and construction sequencing plan showing commencement, order, sequence and completion dates for approval prior to commencing with the demolition of existing utilities. The schedule submitted didn't include sequencing of the new work.

U-0164 **Beale Investigative Trench Limits** **Closed** **08/09/2011** **08/19/2011** **08/10/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jonathan Flaming

Co-Author:

REQUEST:

Sheet U-1008 shows the limits of the investigative trench on Beale Street (south of Mission St) to be 56' in total. 41.1' from center going west and 14.9' from center going east.
By going 14.9' from center with the eastern portion of the investigative trench M Squared will not encompass the existing water line and the existing AWSS line as they are outside the limits of the 14.9'.

Please direct M Squared how to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/9/2011 Excavate investigative trench in accordance with contract documents as shown on U-1008. Demolish, cap and plug existing 12-inch water and 10-inch HPW (AWSS) as shown on Sheet U-1125.

U-0165 **Sewer Lateral to 92 Natoma** **Closed** **08/09/2011** **08/19/2011** **08/10/2011** **Potentially** ☐

From: Webcor Construction LP Jonathan Flaming **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

While installing the new sewer on Natoma Street from 2nd to the shoring wall M Squared noticed that the sewer lateral to 92 Natoma is a new VCP lateral and has been installed in the last 12 months.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 8/10/2011 It is acceptable to protect existing lateral and provide a permanent connection to the new 24-inch VCP main in lieu of replacing the lateral as shown on Plans.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

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The contract drawings show M Squared replacing all sewer laterals on Natoma from 2nd to the shoring wall, however this lateral appears like it does not require replacing.
Jason Chin (BCM) has been made aware of this issue.

Please confirm it is acceptable to leave this lateral in place and perform permanent connection to the new 24" VCP main.

Notes
Please provide credit for contract work not completed.

U-0166 **Broken Culvert Pipe Encountered in Utility Demolition Trench on Fremont St.** **Closed** **08/19/2011** **08/29/2011** **08/24/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:
During trenching for demolition of the electrical ductbank along the east side of Fremont St Trinet crossed a 10" culvert pipe (@ Stn 5+05) from the existing catch basin on the east side of the street at Stn 5+05. The section of clay pipe exposed is cracked in several places and half the bell of an exposed joint is missing. Please advise if the owner will need the broken pipe section replaced before the trench is backfilled.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Replace damaged pipe section per direction of SFPUC inspector prior to trench backfill.

U-0167 **Culvert Run to MH#306** **Closed** **08/22/2011** **09/01/2011** **08/24/2011** **Potentially** ☐

From: Webcor Construction LP Jacob Giannandrea **To:** Turner Construction Compan Gary Krutsch **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:
See attached sketch.

Please confirm that it is acceptable to tie the 10" culvert run into the new MH#306 instead of running the culvert to the existing MH.

If this change is acceptable please advise if it is necessary to connect the existing 3'X5' sewer to MH 306 or if the existing sewer should be abandoned.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐
Connect new 10" SD culvert from CB#306 to SMH#306.

It is no longer necessary to connect existing 3'x5' brick sewer to SMH#306 as shown on U-5001 Detail 6. Abandon in place existing 3'x5' sewer and existing sewer MH at STA ~2+40 in accordance with CCSF DPW Standards.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0168	**TJPA Composite Utility Drawings**	**Closed**	**08/31/2011**	**09/10/2011**	**10/05/2011**	**Potentially**	☐

From: Webcor Construction LP Jacob Giannandrea **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Colin Azevedo

Co-Author:

REQUEST:

Sheet MA - 12, Note 4 refers to TJPA Composite Utility Drawings for that area. M Squared currently has composite utility drawings for trade packages TG04.3, TG04.4, TG04.6, and TG04.1. M Squared does not have composite utility drawings for the TG04.2 project.

Please provide these drawings.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 9/15/2011 TJPA does not have existing utility composite drawings for this area. SFDPW BOE has information and records provided by utilities in response to a notice of intent that can be provided to the TJPA for use as reference.

Jeff Thiel 10/3/2011 SFDPW BOE has provided the documents referenced in Eric Zagol's original response to this RFI.

These documents have been uploaded to Constructware and can be found in the following File Director path: Sitework & Utilities\5 Program Coord\30 Utilities\Notice of Intent\...

If the files are too large to open in Constructware they can also be found on the FTP site by following this link:

ftp://ftp.tjpa.org/Document%20Control/11011824/

Log In Instructions

1. Enter case-sensitive Username (public) and Password (PublicFTP1)

2. Select View\Open FTP Site in Windows Explorer

3. Drag file(s) to your desktop

Note: Please do not open files while logged in the FTP

U-0169	**CB#703 Location**	**Closed**	**09/01/2011**	**09/01/2011**	**09/07/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

See attached photo showing conflict with location of new CB#703 and unknown underground concrete structures. They appear to be the same structures discovered in the investigative trenches on Beale Street.

Please confirm that it is acceptable to put the new CB in the same location as the existing CB which has been removed.

It is acceptable to construct CB#703 in the same location as existing.

Please coordinate the depth of the sewer culvert with proposed PG&E Phase II work as shown on U-2037. Submit proposed culvert profile with elevations of the existing PG&E electrical ducts as pot holed that are to be capped in Phase I (U-1125) and connected to in Phase II (U-2037).

U-0169.1 **CB#703 Location** **Closed** **11/15/2011** **11/25/2011** **11/23/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

- CB#703 was constructed in the location of the existing catch basin.
- See attached profile with culvert elevations. Culvert was installed deeper as several utilities were lower than shown on the drawings.
- Per M Squared¡¦s response to comments made in the RFI #U-0181, one of the duct banks shown on the drawings could not be located and was not as shown on the drawings. The alignment of the other duct bank is also different than what is shown on the drawings. (See attached) The depth of this duct bank at the point where M Squared capped it (3' south of the unknown concrete structure) was 6' 8" to the top. Its location/alignment beyond that point are unknown.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Please provide the invert elevation of constructed 10" culvert at CB#703. Based on the sketch provided in the RFI169.1, the 10" culvert was reversed slope. A culvert with reversed slope is not acceptable.

U-0170 **Duct bank Demo on Natoma** **Closed** **09/15/2011** **09/25/2011** **09/23/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

M Squared has determined in the field that the duct bank highlighted which is to be demolished, is in fact

SUGGESTION:

Eric Zagol 9/18/2011 U-1110 indicates removal of existing PG&E duct to facilitate construction of the 8-

ANSWER: **Accept Suggestion:** ☐

U-1110 indicates removal of existing PG&E duct to facilitate construction of the 8-inch Water and Sewer

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underneath the curb and gutter. In order to demolish it per the plans M Squared will have to remove the curb and gutter and possibly a portion of sidewalk. See attached.

Please confirm whether you would like the duct bank removed and repour the curb and gutter after demo, or leave the duct bank in place and repair the portion of curb and gutter damaged while locating the duct bank.

inch Water and Sewer MH #301 . If existing duct as highlighted is not in conflict with new utilities then the existing duct may be abandoned in place.

Cap existing duct at RUP/BSE demarcation line per ASI 15.

Provide photos showing location of duct, duct, and curb and gutter damaged at the area indicated for repair for review.

Jeff Thiel 9/19/2011 Pending approval by the TJPA, a CR will be issued.

MH #301 . If existing duct as highlighted is not in conflict with new utilities then the existing duct may be abandoned in place.

Cap existing duct at RUP/BSE demarcation line per ASI 15.

Provide photos showing location of duct, duct, and curb and gutter damaged at the area indicated for repair for review.

U-0170.1 **Duct Bank Demo on Natoma** **Closed** **09/21/2011** **10/01/2011** **10/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

In response to RFI #U-0170, see attached photos. Approx 20' of curb and gutter to be repaired. Sidewalk remained undamaged and does not require repair. Please advise if M Squared is to repair this portion of curb and gutter.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 9/27/2011 Per response to RFI 170, please provide data (i.e. photos, survey and etc.) that supports the statement that the existing duct bank was found beneath the existing curb and gutter.

Contract plans show the existing duct south of the curb and gutter. The curb and gutter should have been protected in place during excavation. If curb and gutter to be protected in place was damage during the course of work please restore to match existing per 01 15 40 and contract documents.

U-0170.2 **Duct bank Demo on Natoma** **Closed** **11/18/2011** **11/28/2011** **12/01/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

M Squard has reviewed their photo logs and were unbale to locate any photos showing the ducktbank running under the curb and gutter. M Squared will proceed with providing a credit per CR U-027.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

12/1/11 UPDATED RESPONSE

Corresponding CR for this work is CR U-050. Proceed with providing credit per CR U-050.

11/22/11 ORIGINAL RESPONSE

RFI does not pose a question and will be considered closed. M Squared shall proceed with providing a credit per CR U-027.

U-0171 **AWSS Ductile Iron Pipe** **Closed** **09/15/2011** **09/25/2011** **09/19/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please confirm that it is acceptable to use non-gauged ductile iron pipe for the AWSS system.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 9/19/2011 Michael Smith's (SFDPW) response, "Use at contractor's discretion. Contractor will be responsible for pipe being inserted into pipe bell ends, AWSS fittings, etc. and passing hydrostatic tests," dated and signed on 9/19/11 (see attached).

U-0172 **City Furnished Gate Valves** **Closed** **09/20/2011** **09/30/2011** **10/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Specifications direct the contractor to provide a clear distance between the pipe flanges that consists of the gate valves laying length plus ½" not including the thickness of the gaskets to be installed.
In order to do this M Squared will need the dimensions of all City furnished gate valves.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 10/4/2011 Michael Smith's (SFDPW) response,

"Please refer to attached manufacturer's drawings for laying lengths of gate valves. These laying length dimensions were confirmed on 10/04/2011."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please provide cut sheets for all valves provided by SFWD for this project.

dated and signed on 10/04/11 (see attached).

U-0173 **Valve control panel pick-up** **Closed** **09/24/2011** **10/04/2011** **10/05/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

M Squared's supplier, Control Systems West, have been coordinating with SFWD regarding which of the City's panels will be used for the TG04.2 project.
Tom Reid with SFWD has designated 3 panels to be used for this project.
These panels are to be picked up at SFWD, transported to Control Systems West for testing, programming etc and then returned to the job for use at 3 of the valve locations.
As the panels have been selected M Squared would like to begin the process of getting the panels to their supplier so they can begin the work.

Please provide the name and contact information for the person with whom M Squared can coordinate the pick up of the 3 units.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 9/26/2011 Contact Bill Gunn at (415) 706 0688 or WGunn@sfwater.org

Per Section 01 10 40, Coordination, Article 1.6 C, this RFI does not fall under the acceptable uses for an RFI as it is not being used for an interpretation of the Contract Documents.

RFIs used for questions regarding coordination will be rejected in the future.

U-0174 **AWSS Antenna location at Location 1** **Closed** **09/27/2011** **10/07/2011** **10/11/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

On drawing MA-20 regarding location 1 the antenna is shown to be mounted on a street light. However, on drawing MA-29 the same antenna is shown to be mounted on the enclosure.
Early conversations between Dick Borders (Control Systems West) and Kenny Chin (DPW) confirm that mounting the antenna on the enclosure is the preferred option.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 10/11/2011 Michael Smith's (SFDPW) response:

"The antenna shall be mounted on the controller cabinet for location No. 1. Disregard any reference to the mounting of the antenna on the (E) light post as shown on drawing MA-20. Mounting of antenna on to the controller cabinet shall be performed by the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm the antenna mounting location.

controller cabinet manufacturer."

Dated and signed on 10/11/11 (see attached).

U-0175 **Sludge line layout** **Closed** **09/27/2011** **10/07/2011** **11/08/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

The 12" sludge line cannot be installed along Mission Street as shown on the revised drawings due to the elevation and location of existing utilities and other unknown subsurface obstacles. Please see attached pothole information.
Please advise how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 11/7/2011 Modifications to the 12" Sludge FM are currently being evaluated under ASI-018. Revised plans and specifications forthcoming following redesign and execution of ASI-018.

U-0176 **AWSS Conflict @ Location 7** **Closed** **09/28/2011** **09/28/2011** **10/17/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** City and County of San Fr Michael Smith

Co-Author:

REQUEST:

Due to the location of existing utilities it will not be possible to install the AWSS valve vault at the location shown on sheet MA 18 of the AWSS drawings. See attached pothole drawings from 09/26/11 and
09/27/11.
Please advise how you would like to proceed.

SUGGESTION:

Follow up responce recieved 10-19-2011:
****10/19/11 UPDATE****

Michael Smith's (SFDPW) response,

"Meeting with M Squared, SFWD, and SFDPW on 10/18/11. Contractor to have area from intersection of First/Howard Streets to 100 feet West on Howard Street marked for utilities (USA). We will then meet at site to determine clear area over AWSS main to pot hole for valve vault."

Dated 10/19/11 (see attached)

initial response received 10-17-2011:

ANSWER: **Accept Suggestion:** ☐

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SFDPW to meet in the field with contractor and SFWD inspector to determine method to proceed. Will provide response with direction at this time.

NOTE: RB issued email 10-18-2011 requesting meeting.

U-0176.1 **AWSS Conflicts at Location #7** **Closed** **11/18/2011** **11/28/2011** **11/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Daniel Foudy

Co-Author:

REQUEST:

Per the response to RFI #U-0176 a field meeting was attended by Michael Smith and M Squared.
M Squared received direction to perform additional potholes further west of First St on Howard St.
Please see attached pothole findings.
Please advise how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,
"Please refer to commnets on attached sheet.
SFDPW Response:
This conflict between the existing AWSS line and utilities at the original
design location are unforeseen field conditions due to incorrect information
being furnished to the City. Thus the motorized gate valve vault is being
relocated west of the original location. The contractor shall pothole 10-feet
west of Pothole No. 1B and 10-feet east of Pothole No. 1A to verify that there
is adequate clearance for installing a horizontal offset and motorized gate
valve vault the approximate location of Pothole No. 1A. Please notify the
engineer of the potholing schedule in order that we can request the majorutilities toattempt to identify the 4-inch steel pipe running parallel on Howard Street."
Signed and Dated 11/18/11 (see attached)

U-0176.2 **AWSS Conflicts @ Location 7** **Closed** **01/18/2012** **01/28/2012** **02/16/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

Webcor/Obayashi Joint Venture

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REQUEST:

Per response to RFI#U-0176.1 M Squared performed additional potholing at Location 7.

Please see the attached pothole findings.

Please advise how you would like to proceed.

Note: The 4" Unknown Utility was confirmed to be an abandoned PG&E gas main. On 1/10/12 PG&E drilled the line and confirmed it to be abandoned.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/15/2012 Michael Smith's (SFDPW) Response.

"Furnish and install horizontal offset as shown on the attached drawing in order to locate the proposed concrete valve vault with minimum 6-inches clearance to the existing electrical duct bank running on the North side of Howard Street. Adjust nipple lengths as required between elbows and to connect into the ends of the existing cast iron pipes. Concrete valve vault and placement of motorized gate valve shall otherwise be shown on drawings MA-22 and MA-25.

Work for installation of new concrete valve vault and gate as show on Drawing MA-18 shall be deleted from the scope pending installation of the new valve vault as shown on the attached drawing."

Signed and dated 2/13/12.

Christina Young 2/15/2012 Pending TJPA approval, a CR will be issued.

U-0177	Ductbank Demo on Fremont St	Closed	10/04/2011	10/14/2011	10/10/2011	Potentially ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

See attached sketch.
The duct bank shown on Fremont Street to be demolished is in fact underneath the curb and gutter and portion of the sidewalk on Fremont St.
In order for M Squared to remove this duct bank it will require us to close the west sidewalk on Fremont St, demo and remove the sidewalk, remove the ductbank and then replace the sidewalk.
Currently the east sidewalk is closed also due to BBI activity.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 10/6/2011 Coordinate with PG&E to confirm the duct indicated in the M2 sketch is PG&E's 6-6" duct from PG&E's EMH 7605.

Demolish and remove the 6-6" duct segment between STA ~2+40 (at the gutter) and the demarcation line south of shoring wall. The intent is to remove the segment within Natoma Street. The segment south of STA 2+40 (STA 2+40 to STA 1+85) can be abandoned in place.

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Please advise how you would like to proceed.

Provide cap at STA 2+40 instead of STA 1+85 shown in the plans.

PG&E will break in and connect to the existing 6-6" duct at STA 1+85 as part of PG&E's Phase II relocations.

U-0178 **Sludge line layout on Mission between Beale and Main** **Closed** **10/04/2011** **10/04/2011** **11/08/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Continued potholing on Mission Street between Beale and Main has revealed additional grade conflicts on the proposed alignment for the new 12" steel sludge line. Some of the utilities are not as shown on the drawings nor marked in the field by USAN. See attached sketches.

Please advise if M Sqaured is to continue potholing on Mission Street as it may be necessary to excavate the entire length of the trench between Beale and Main to locate and map all conflicts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 11/7/2011 Modifications to the 12" Sludge FM are currently being evaluated under ASI-018. Revised plans and specifications forthcoming following redesign and execution of ASI-018.

U-0179 **AWSS Main line conflicts at Location 7** **Closed** **10/05/2011** **10/15/2011** **11/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Some of the existing utilities are not shown on the drawings and have been installed on top of the existing 12" AWSS line. Due to the proximity and volume of these utilities it is not possible to even hand excavate down to the existing AWSS line to verify its location and depth. Please see attached pothole information.
Please adivse.

SUGGESTION:

the following response received 10-17-2011 does provide direction in this matter:
It shall be the contractor's responsibility per the Contract Documents to perform the required potholing in order to identify the existing AWSS facilitieis prior to actual excavation.
Background utility information was provided by

ANSWER: **Accept Suggestion:** ☐

UPDATED RESPONSE (11/18/11)
Michael Smith's (SFDPW) response,
Refer to comments on attached sheet. These comments supercede
response provided on 10/17/11.
SFDPW Response:
This conflict between the existing AWSS line and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

TJPA/consultatns and shall be verified in the field by contacting Underground Service Alert (USA). Direct conflicts oted during potholing shall be directed to the utility owner(s) for relocation/removal as required to perform the contract work.
NOTE: email from Rick Buellesbach 10-18-2011 requests an answer to the question.

utilities are unforeseen field conditions due to incorrect information being furnished to the City.
There are no design alternates at this location due to the necessity of removing the existing cross that was capped on the First Street side outlet to accommodate the utility relocation work for the proposed transit center.
The engineer will contact the owners of the utilities in conflict with the AWSS facility for resolution." Dated 11/18/11 (see attached)

U-0180 **Conflict with CB 305** **Closed** **10/10/2011** **10/20/2011** **10/17/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Richard Buellesbach

Co-Author:

REQUEST:

While excavating to install CB305 M Squared encountered a large unknown concrete structure. The concrete structure is in conflict with CB305. CB305 cannot be installed as planned. See attached photo.

Tsu-Ling with AECOM and Alberto with SFDPW reviewed the situation in the field and agreed the solution was to salvage the existing CB where CB 305 was to be installed. This work was performed on 10/7/2011 under the inspection of SFDPW.

Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

As determined during a site visit on 10/7/11 with M Squared, AECOM, SFDPW and W/O; the existing unforeseen condition, a large concrete structure, is in conflict with CB 305 and the installation of a new catch basin would require an extensive amount of unforeseen demotion.

In lieu of installing a new catch basin barrel to replace existing, modify the existing catch basin as follows:

1. Clean interior walls and bottom.
2. Apply 1/2" think uniform layer of mortar on interior walls and bottom.
3. Install cast iron trap.
4. Install pipe culvert and connect to MH#305 as shown in Plans.

New culvert size and invert shall match existing culvert at catch basin. Use ductile iron pipe if depth of cover is less than 3 feet.

U-0181 **Unknown subsurface structure on Beale** **Closed** **10/13/2011** **10/23/2011** **10/24/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author:

REQUEST:

During M Squared's demo work on the West side of Beale Street at Sta 4+70 they uncovered an unknown subsurface structure. This structure appears to be an abandoned vault that has been filled with concrete. Please see attached photo.
M Squared ceased work on the removal of the six 6" electric duct banks 6' south of this structure. If they are to continue with the removal of this abandoned duct bank per sheet U-1125 of the contract drawings they will be forced to remove the subsurface structure.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 10/24/2011 Please provide a plan showing the location and extent of unknown structure identified. Also indicate what portions of the existing PG&E electrical duct has been demolished to date.

U-0181.1 **Unknown subsurface structure at 301 Mission** **Closed** **11/18/2011** **11/28/2011** **11/23/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

See attached information as requested in response to RFI #U-0181.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Subsurface structure to remain. Cap locations as shown are acceptable. Please mark on as-built drawing as required by the contract documents.

U-0182 **AWSS Conflict with AT&T Vault at Location 2** **Closed** **10/24/2011** **11/03/2011** **11/21/2011** **Potentially** ☐

From: Webcor/Obayashi Joint Venture Jason Dunne **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Daniel Foudy

Co-Author:

REQUEST:

On the north east side of the Mission Street and 2nd intersection the existing AWSS line is running through the floor of the AT&T vault. The removal of the existing 12" pipe and installation of the new 16" AWSS pipe will require the floor vault to be demolished and re-poured.

Please provide a detail for this work or a new alignment for the AWSS line so as to avoid this vault.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

"SFDPW Response:

This conflict between the existing AWSS line and utility vault are unforeseen field conditions due to incorrect information being furnished to the City.

The contractor shall pothole the alternate pipe alignment as shown on the attached sketch due to the existing conflict with the AT&T vault over/within the

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

present alignment of the AWSS pipe.

Notify engineer of pothole results for the proposed alternate pipe alignment."

Signed and Dated 11/18/11 (see attached)

U-0182.1 **AWSS Conflict with AT&T Vault at Location 2** **Closed** **03/28/2012** **04/07/2012** **05/16/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

The sketch provided in response to RFI U-0182 does not provide adequate information to perform additional potholing. Please provide additional information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/29/2012 Michael Smith's (SFDPW) response,

"Please refer to the attached sketch dated 3/16/12 for potholing the location shown in order to verify the existing AWSS main and that there there are no utility conflicts in the proposed vault location. The original loaction for the vault is impacted by utilites."

Signed and Dated (3/29/12)

U-0182.2 **AWSS - Conflict with AT&T Vault at Location 2** **Closed** **07/31/2012** **07/31/2012** **08/14/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per the response to U-0182.1, M Squared potholed the locations shown. See attached pothole data.
- The pothole 24' north of Mission appears to have a substructure underneath PGE duct banks.
- The pothole 12' north of Mission St had several utilities in them that have since been confirmed abandoned.

SUGGESTION:

Relocate the street light/ traffic signal conduits and shift the vault location 3 feet north away from the 12inch gas main. In doing so, this could potentially be the location for a cast in place concrete valve vault.

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

- Proceed as per Contractor's recommendation for locating motorized gate valve vault.

- Contractor shall field verify alignment of pipe North/South of proposed vault location for connection

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into (E) lines.

Signed and dated 8/9/12. (See attached)

Per discussions between TCCo/PMPC/SFDPW, Contractor to trench the Second Street AWSS alignment per the attached sketch. Upon completion of trenching advise TJPA if there will need to be a change in material/fittings required to complete the AWSS installation work.

U-0182.3 **AWSS - Design Route at 2nd Street Intersection** **Closed** **02/06/2013** **02/16/2013** **02/28/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per the response to RFI U-0182.2, M Squared has field verified a new alignment for the 16" AWSS at 2nd & Mission St. (See attached drawing).

Due to several PG&E conflicts this is the only available route capable of accepting a 16" pipe; M Squared is unable to locate an alignment per the sketch attached to the response to RFI U-0182.2. By proceeding with this alignment M Squared will again return the AWSS pipe through the structure of an AT&T vault and a PG&E Vault. It does not appear from our field work that there are other options for a workaround.

Based on information M Squared currently have attained from the trenching; restraining each joint, per the original contract will require the following:
- 4 additional 16-inch 45deg bends
- 2 additional 16-inch 90deg bends
- 1 additional 16-inch bell collar
- 15 additional stop collars
- 4 additional kickers/thrust blocks.

Please confirm the proposed route and additional fittings

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/12/2013 Response per Michael Smith, (SFDPW)
"Proceed as stated above due to existing conflicting utilities impacting original vault location."
Signed and dated 2/8/13 (See Attached). Contractor to verify material quantities required for the revised alignment once the proposed route is fully exposed. Pending TJPA approval, a CR will be issued for this work.

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and restraints are acceptable.

U-0182.4 **AWSS - Final Design Route and Additional Fittings List at 2nd Street Intersection** **Closed** **03/14/2013** **03/24/2013** **03/21/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor/Obayashi Joint Ve Jackson Tukuafu

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Refer to drawing MA-3 and MA-13

Please refer to previous RFI 182 series for history.

As M Squared must connect to an existing 16" line at 2nd & Mission Street, M Squared performed additional trenching which has now opened up the possibility of a different and more straight forward alignment for 2nd Street piping.

This new alignment shall replace the alignment sent in the previous RFI-0182.3.

1. Please confirm the new alignment shown in the attached M Squared sketch SK-008.3 is acceptable.
2. Please confirm where the 16" to 12" reducer is to be located. The location of this reducer will decide whether M Squared will need to purchase two (2) more 16" 45-deg elbows or 12" 45-deg elbows.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) Response,

"The suggested pipe layout based on recent excavations is acceptable.

-Locate the 16" x 12" reducer North of the 16" tee and as close as possible to the tee."

Signed and Dated 3/18/13. (See Attached)

U-0183 **AWSS Valve Vault Conflict at Location 1** **Closed** **10/24/2011** **11/03/2011** **10/26/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** City and County of San Fr Michael Smith

Co-Author:

REQUEST:

The proposed valve vault at location 1 cannot be installed as per the plans due to utility conflicts encountered during potholing. See attached pothole info. These utilities are not shown on the contract drawings.
Please advise.

SUGGESTION:

Jeff Thiel 10/27/2011 Michael Smith's (SFDPW) response,

"Per your preliminary excavation results, please schedule a site visit with SFDPW and SFWD at site. At site visit, we will provide direction for vault

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

installation."

Signed and Dated 10/26/11 (see attached)

Kevin Chiu 10/27/2011 When final direction is provided via on site meeting per the RFI response, please submit a follow up RFI to confirm direction provided in the meeting.

U-0183.1 **AWSS Valve Vault Conflict at Location 1** **Closed** **11/16/2011** **11/26/2011** **11/18/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Daniel Foudy

Co-Author:

REQUEST:

Per the response to RFI#U-0183 a site visit was held with SFDPW and SFWD on 11/2/2011 to review the conflicts at location 1. Please provide direction based on this meeting.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

"Refer to comments on attached sheets. These comments supercede comments provided on 10/26/11 for RFI U-0183.

SFDPW Response:

Motorized gate valve vault: Per the preliminary excavation at Pothole No. 2 and the provided information, verify 2 1/2-inch steel for ownership and request owner should there not be adequate space to install vault due to the existing electrical duct bank shown in Pothole No. 3 drawing. Notify engineer to provide revised drawing(s) for AWSS fittings should vault need to be moved west. Notify engineer should vault interior dimensions need to be reduced after providing a minimum of 3-inches clearance with other utilities and the vault constructed with 12-inch thick walls.

Controller cabinet: Per the preliminary excavation at Pothole No. 7 and the provided information, install the controller cabinet concrete foundation at this site.

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Notify MCI that either their conduit can remain with the controller foundation installed over the conduit with 4-inches clearance or that they can relocate their conduit as required. Modify bottom of controller foundation to accommodate a clearance of 4-inches should the conduit not be relocated.

Battery vault: Per the preliminary excavation at Pothole No.6 and the provided information, field verify the installation of the battery vault by locating the northern edge of the vault 2-feet towards the curb."

Signed and Dated 11/15/11 (see attached)

U-0183.2 **AWSS Valve Vault Location 1** **Closed** **12/02/2011** **12/12/2011** **12/15/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please see the attached letter regarding the response to RFI#U-0183.1.

Please provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

"Please see attached for revised response - U-183.2.

SFDPW Response:

Motorized Gate Valve Vault: Per the preliminary excavation at Pothole No. 2 and the provided information, verify 2 ½ inch steel for ownership and request owner to relocate the line outside of the valve vault footprint with 12-inches clearance. Should the valve vault still be in conflict with the existing electrical duct bank shown in Pothole No. 3, move vault location West along Market Street until valve vault has a minimum 12-inches clearance with the existing electrical duct bank.

Notify engineer to provide revised drawing(s) for AWSS fittings should valve vault need to be moved West.

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Notify engineer should vault interior dimensions need to be reduced after providing a minimum of 3 inches clearance with other utilities and the vault constructed with 12-inch thick walls."

Signed and dated 12/14/11 (see attached)

Turner will verify 2 1/2 steel for ownership.

U-0183.3 **Valve Vault Conflict at Location 1** **Closed** **01/23/2012** **02/02/2012** **02/08/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Per the response to RFI #U-0183.2, M Squared Construction performed further potholing on the valve vault location on Market Street.
Please see attached findings of these potholes.
Please advise on how you would like M Squared to proceed with the vault construction/installation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/6/2012
Michael Smith's (SFDPW) response,
"-Install concrete valve vault in locations as show on pothole No. 3A. Relocate 1 1/4" copper pipe as necessary during vault placement.
-Resubmit concrete vault drawings with dimensions to suite location and 9" thick walls for walls adjacent to other utilities. Provide minimum 6" clearance to water line and 4" to ductbank."
Signed and dated 02/06/12 (see attached)

U-0183.4 **AWSS - Valve Vault Conflict at Location 1 for Trade Package** **Closed** **07/05/2012** **07/15/2012** **07/19/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

While excavating for the MGV at location 1 it was discovered that the existing 16" water main has restraints installed
on it. These restraints are in conflict with the excavation and shoring for the removal of the existing valve vault and the
installation of the new cast in place vault at this location.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 7/19/2012 Installation of shoring is considered the contractor's means and methods.

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U-0184	**AWSS Connection Point at Location 2.**	**Closed**	**10/24/2011**	**11/03/2011**	**11/01/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

The existing AWSS line at the connection point on 2nd Street north of Mission is a 10" pipe not a 12" as shown on drawing MA-13.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 10/27/2011 Michael Smith's (SFDPW) response,
"The line on Second Street North of Mission Street is a 10" CI line. Please update drawings. Drawing MA-21 in the contract package indicates the line as a 10" line."
Signed and Dated 10/26/11 (see attached)

U-0184.1	**AWSS Connection Point at Location #2**	**Closed**	**12/02/2011**	**12/12/2011**	**12/14/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please see the attached letter regarding the response to RFI#U-0184.

Please provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per Michael Smith's response to RFI U-0188 SFDPW is preparing revised AWSS drawings to include stationing information provided by AECOM. These revised drawings will address the issue raised in RFI U-0184 and provide clear direction. The drawings will be issued in the near future packaged with other revisions.

Jeff Thiel 3/22/2012 - RFI U-184.1: The response on 12/14/11 indicated that resolution would be provided via a revised AWSS drawing. This change was included on the stationed drawings provided under ASI 19.

U-0185	**Existing Lateral to CB701**	**Closed**	**10/28/2011**	**11/07/2011**	**11/01/2011**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Colin Azevedo

Co-Author:

REQUEST:

Sheet U-3024 shows and existing storm drain lateral connecting the back side of the existing catch basin which was replaced by CB #701. The details for CB #701, C/U-3033, do not show this existing lateral to be connected to CB #701. CB #701 has been installed per plan and the existing lateral was abandoned in place. It has been discovered that the abandon lateral in servicing an active

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 10/31/2011 Lateral connections to CCSF catch basin barrels from property outside of the public right of way are prohibited . Owner/occupant of Parcel shall manage runoff in parcel and discharge to main sewer in accordance with CCSF regulations.

Coordinate with TJPA's field representative and

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

catch basin in Lot N. See attached sketch.

Please advise.

occupant of Parcel.

U-0186 **AWSS Conflict with Elec. Duct Banks & Vault @ Location 2** **Closed** **11/01/2011** **11/01/2011** **11/18/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Daniel Foudy

Co-Author:

REQUEST:

Due to the proximity of the electrical vault and the electrical concrete duct banks it is not possible to remove the existing 18" AWSS line and reconnect to the existing tee as shown on drawings MA-3 and MA-13. Please see attached pothole drawing. The restraining lugs on the east side of the tee are cast into the base of the electrical vault. The concrete duct bank on top of the AWSS line at the connection point combined with the electrical vault will not allow enough room for the plumber to burn out the old lead joint and cast the new one.
Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,
"SFDPW Response:
This conflict between the existing AWSS line and utility vault/duct bank are unforeseen field conditions due to incorrect information being furnished to the City.
There are no design alternates at this location due to the necessity of removing theexisting 18"x10" reducer at this location in order to install the 16" fittings to maintain the proposed 16" pipe size upgrade on Mission Street. The engineer will contact the owner of the utility in conflict with the AWSS facility for resolution."
Signed and Dated 11/18/11 (see attached)

U-0187 **Conflicts with Controller Cabinet Foundation & Battery Enclosure at Location 1** **Closed** **11/18/2011** **11/28/2011** **11/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Daniel Foudy

Co-Author:

REQUEST:

Please confirm that M Squared it to install the control cabinet enclosure foundation (3'W x 3'L x 2'D) on top of the existing 10" and 8" steel lines shown on the attached sketch of pothole #6.
Please confirm that M Squared is to install the fiberglass battery enclosure on top of the utilities shown on the attached sketch of pothole #7. It will be necessary to hand dig around the existing utilities to install drain rock beneath the enclosure per the specifications.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,
"Refer to SFDPW response provided on 11/16/11 to RFI U-0183.(1)."
Signed and Dated 11/18/11 (see attached)
RFI U-0183.1 Response included below-
"SFDPW Response:
Motorized gate valve vault: Per the preliminary excavation at Pothole No. 2 and the provided information, verify 2 1/2-inch steel for ownership and request owner should there not be adequate space to

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install vault due to the existing electrical duct bank shown in Pothole No. 3 drawing. Notify engineer to provide revised drawing(s) for AWSS fittings should vault need to be moved west. Notify engineer should vault interior dimensions need to be reduced after providing a minimum of 3-inches clearance with other utilities and the vault constructed with 12-inch thick walls.
Controller cabinet: Per the preliminary excavation at Pothole No. 7 and the provided information, install the controller cabinet concrete foundation at this site. Notify MCI that either their conduit can remain with the controller foundation installed over the conduit with 4-inches clearance or that they can relocate their conduit as required. Modify bottom of controller foundation to accommodate a clearance of 4-inches should the conduit not be relocated.
Battery vault: Per the preliminary excavation at Pothole No.6 and the provided information, field verify the installation of the battery vault by locating the northern edge of the vault 2-feet towards the curb."

U-0187.1 **Conflicts with Controller Cabinet Foundation and Battery Enclousure at Location # Closed** **12/02/2011** **12/12/2011** **12/15/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please see the attached letter regarding the response to RFI#U-0187.

Please provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

"Please see attached for revised response - U-187.1.

SFDPW Response:

Controller Cabinet: Per the preliminary excavation at Pothole No. 7 and the provided information, install the controller cabinet and the concrete foundation at this site instead of the battery vault assembly that was shown here originally in the Contract Documents.

Notify MCI that either their conduit can remain with the controller foundation installed over the conduit or MCI

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has the option to relocate their conduits away from the concrete foundation footprint. Should MCI not want to relocate, reduce thickness of concrete foundation over MCI conduit to provide a minimum of 4-inches clearance between the conduit outside diameter and the bottom of the foundation.

Battery Vault: Per the preliminary excavation at Pothole No. 6 and the provided information, install the battery vault at this site instead of the controller cabinet that was shown here originally in the Contract Documents.

Field verify (pothole) 2-feet from face of existing curb to determine if the Northern edge of the battery vault can be installed approximately 2-feet from curb instead of 5-feet from curb in order to provide clearance with 8-inch steel line. Notify engineer of pothole results prior to installation."

Signed and Dated 12/14/11 (see attached)

Turner will notify MCI.

U-0187.2 **Conflicts with Controller Cabinet and Battery @ Location 1** **Closed** **01/23/2012** **02/02/2012** **03/21/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Steve Cunningham

Co-Author:

REQUEST:

In response to RFI # U-0187.1 (Revised Response to RFI# U-0187 ON 12/14/11)
- See attached pothole data from additional potholing at this location.
- During initial discussions with MCI/Verizon M Squared informed them of the intent to install units on their utility. They requested a letter from the owner highlighting the intent. Please confirm if it is acceptable to install a unit on their utility.
Please provide direction on the locations of the battery vault and controller cabinet taking into consideration all

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/16/2012 Michael Smith's (SFDPW) response,

"Please see attached wording for letter to owner of utility.

Locate North most edge of battery vault cover 24" from face of curb or back from face of curb to remain in "brick" area."

Signed and Dated 2/14/12 (Letter Wording) and

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current utilities in place.

3/15/12 (Battery Placement)

The attached letter addressed to MCI/Verizon was sent to Pam Brown on 3/14/12.

U-0188 **Control Stations on AWSS Drawings** **Closed** **11/18/2011** **11/28/2011** **11/21/2011** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Kevin Chiu

Co-Author:

REQUEST:

At present M Squared has set up control points along Mission Street. These stations were based on a continuation of survey points used on Mission Street for the TG04.6-Sludge Line Project.
The City designed AWSS Drawings do not have these stations on them. Please provide an updated set of AWSS Drawings with the project stations marked on them so it will allow M Squared to accurately document field conditions and as built the necessary information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,
"SFDPW is currently preparing revised AWSS DWGS with stationing information as provided by AECOM. We anticipate the final set of stamped/signed DWGS prior to the end of November 2011."
Signed and Dated 11/18/11 (see attached)

Jeff Thiel 3/22/2012: RFI U-188 included a request for stationed drawings. It was responded to on 11/18/11 and resolved by ASI 19 when the stationed drawings were provided.

U-0189 **First & Howard Utility Conflicts, Location 7 Complete Pothole Data** **Closed** **12/02/2011** **12/12/2011** **07/03/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

While potholes #2 & #3 have been addressed in a previous RFI (RFI#U-0176), other potholes carried out in Location 7 exposed various utilities that are not shown on the contract documents. Other utilities were not in the locations indicated on the contract documents.

See attached pothole data from potholes #1 through #11 at location 7.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The issues outlined in the attached pothole data have been addressed and resolved via coordination meetings, CRs, and other RFI responses.

The CRs include U-080R1, U-088, and U-088A as well as RFIs U-0176, U-0176.1, U-0176.2, U-0179, U-0197, U-0197.1, U-0197.2, U-0199, U-0200, and U-0200.1.

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Please clarify if the utilities will be removed, protected in place or relocated.

U-0190 **Fire Hydrant Location on Mission @ First** **Closed** **01/10/2012** **01/20/2012** **01/19/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

While potholing for the new Hydrant and associated piping in the sidewalk on Mission Street (see attached), M Squared's crews damaged the roof of the basement to Portico Restaurant, 88 First Street (see attached photos). This basement structure was not noted on the plans and is a differing site condition.

The roof of the basement will now need to be repaired. Please provide direction and repair details for this work.

It is not possible to locate the fire hydrant in this area due to the presence of the basement. The existing hydrant has a column poured into the structure of the basement (see attached).

Please advise on how you would like to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

-Repair of sidewalk at pothole location: Refer to attached directions from William Liang- SFPDW/EST for repair method.

-New Hydrant lateral shall be located in the (E) hydrant alignment. (E) Hydrant is located in an areaway. Refer to AWSS standard drawings for details. SFDPW will provide revised drawing for (N) lateral prior to construction.

Signed and Dated 01/18/12

Response for Concrete Repair per William Liang (SFDPW) .

Chip out concrete inside of saw-cut area; do not damage (E) rebars.
If (E) rebars are found to have been cut during the saw-cutting process, chip out enough concrete around the cut rebars for installation of Lenton Quick-Wedge Splicing system at both ends; splice new rebars with size to match (E). If (E) rebars are found to be intact, proceed to Step 3.
Install keyway around perimeter of opening (keyway shall be a minimum 1.5 (below top of slab), install swellable water stop (Greenstreak Hydrotite CJ -0725) in keyway.
Form and pour with Emaco S66 CI by BASF. Perform surface preparation and provide curing in accordance with manufacturers recommendations. Note:

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continuous special inspection shall be provided for the concrete pour."

U-0190.1 **Fire Hydrant Location on Mission @ First** **Closed** **01/25/2012** **02/04/2012** **01/26/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

On 1/24/2012 M Squared began repairing the basement roof per the response to RFI U-0190. SFDPW engineer William Liang came out and review the progress that day and provided alternate direction in the field. Please provide this direction in writing so work may resume.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

No alternate direction was given at 1/24/12 site visit by SFDPW engineer. SFDPW provided information and direction to supplement the direction given in response to RFI U-0190 based on his observations in the field. Existing rebar was found to be uncut but lacking sufficient concrete cover. Please see supplementary instruction below.

Per William Liang of SFDPW,

1. Chip out concrete inside of saw-cut area; do not damage (E) rebars,

2. (E) main rebars are found to be intact but have insufficient bottom concrete cover; (E) wire-mesh above the main rebars are found to have been cut during the sawcut process. Install 3-#4 dowels @ 12"o.c. max set in epoxy along three sides w/ 6" embedment into (E) concrete (see attached photo), maintain 6" max from corners, epoxy shall be SIMPSON SET-XP or HILTI HIT-RE500-SD.

3. Install swellable waterstop (Greenstreak Hydrotite CJ-0725) above installed dowels, provide min 1.5" concrete cover.

4. Form and pour w/ Emaco S66 CI by BASF (see attached cut sheets). Perform surface preparation and provide curing in accordance w/ manufacturer's recommendations. Note continuous special inspection shall be provided

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for the dowel installation and concrete pour.

ORIGINAL RFI U-0190 RESPONSE FOR REFERENCE

1. Chip out concrete inside of saw-cut area; do not damage (E) rebars.
2. If (E) rebars are found to have been cut during the saw-cutting process, chip out enough concrete around the cut rebars for installation of Lenton Quick-Wedge Splicing system at both ends; splice new rebars with size to match (E). If (E) rebars are found to be intact, proceed to Step 3.
3. Install keyway around perimeter of opening (keyway shall be a minimum 1.5" below top of slab), install swellable water stop (Greenstreak Hydrotite CJ -0725) in keyway.
4. Form and pour with Emaco S66 CI by BASF. Perform surface preparation and provide curing in accordance with manufacturers recommendations. Note: continuous special inspection shall be provided for the concrete pour."

U-0190.2 **AWSS - High Pressure Fire Hydrant Location on Mission @ First Street** **Closed** **11/21/2012** **12/01/2012** **11/26/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please refer to drawing MA-15 and response to RFI U-0190.

As a result of differing site conditions between Sta 8+50 and 9+00, the new location of the HP fire hydrant shown on drawing MA-15 is to remain in the existing location per response to RFI U-0190.

Please provide a detail drawing showing the new hydrant

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 11/21/2012 Response per Michael Smith (SFDPW),

"Please find attached a sketch for changing the design for replacing the existing HP hydrant at the above location.

The existing hydrant is in an "areaway" since the property at this location has a basement that extends

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lateral with all SFDPW requirements for HP hydrants in an areaway.

under the sidewalk.

The proposed new hydrant off the proposed 16" DI main will be replaced in this "areaway" structure. Please see attached sketch. The originally proposed hydrant lateral that bends 90-degrees as shown in the contract documents drawing MA-15 will be deleted from the work scope. There is no change in work for drawing MA-5. The attached drawing HPL-5142.1 is also shown on the AWSS standard drawings which are part of the contract work.

The contractor is cautioned to use extreme care in this area due to the basement below and to prevent issues with water leakage from the street/sidewalk."

See attached.

U-0191 **Power Source at Location #1, #2 & #7** **Closed** **01/16/2012** **01/26/2012** **02/27/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Webcor Construction LP Jeff Heath

Co-Author:

REQUEST:

In order for the controller enclosures for the motorized gate valves at Location #1, #2 and #7 to be operational a power source will need to be provided at each enclosure location.

Please confirm that the owner has applied to PG&E for the power sources at these locations and advise on the status of these connections.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Revised Responce 2/27/2012

Jeff Thiel 2/23/2012 The TJPA has completed its application to SFPUC for power to AWSS facilities. The SFPUC has requested a minimum of four (4) weeks to make these connections. Sub contractor to coordinate meeting with SFPUC and PG&E prior to start of work.

Below is the MOP for coordinating power source connection as confirmed by Mathew Ho of the SFPUC.

1. Contractor to schedule coordination meeting with PG&E, PUC (Mathew Ho or Michael Mack) and Turner. Contractor to provide a construction schedule and set up Pre-con with PG&E (Per SFPUC request to inform them when Contractor expects to trench for

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electrical service and have the power pedestals installed)
2. Contractor to schedule PG&E trench inspection which is needed after contractor installs conduit but before closing the trench so that PG&E can prove the conduit via mandrel test (30days notice needed, Call PG&E inspection # 415-695-7519 and provide PM# located on drawing and provide PG&E job owner contact as Matt Herron)
3. PG&E to pull cables
4. Schedule a DBI inspection of the meter pedestal (Dave Green DBI 415-558-6654, forward PG&E a copy of the DBI green tag)
5. Once green tag is applied, PG&E to set up meter and then energize.
==========
Origanal Response 1/26/2012

The TJPA has completed its application to SFPUC for power to AWSS facilities.
The SFPUC has requested a minimum of four (4) weeks to make these
connections. Sub contractor to coordinate meeting with SFPUC and PG&E prior
to start of work.

U-0191.1 **Power Source at Location #1, #2 & #7** **Closed** **03/21/2012** **03/31/2012** **05/01/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Transbay PMPC Cory Traylor

Co-Author:

REQUEST:

Recent meeting on the AWSS project resulted in the response to RFI#U-0191 being revised to include a procedure to be followed once the controller cabinets were ready to accept power. However, what was sent in the revised response was a new scope of work followed by the mentioned procedure.

The contract drawings show M Squared's work beginning at pull boxes and going to the controllers. M Squared's interpretation of the drawings sent in the revised response

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Cory Traylor 5/1/2012 In accordance with PG&E Greenbook standards and practices, power connections for motorized gate valve equipment shall be installed at the referenced locations per the attached PG&E sketches, directions and requested equipment requirements. Work not outlined in the attached documents shall take place per contract drawings.

Final coordination for connections shall take place in

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to RFI#U-0191 is the scope of work that goes from the pull boxes to PG&E manholes. This is unclear because the PG&E drawings are not comparable with the contract drawings.

Please clarify the intent and scope of the PG&E drawings. Please clarify how the PG&E drawings correlate with the contract drawings.

the field per note 7 on drawings MA-29 and MA-31.

Connecting for power per the attached PG&E sketches/direction has been approved by SFDPW-Bureau of Engineering.

U-0191.2 **Amperes Interrupting Capacity (AIC) at AWSS Location #1 (Market St.)** **Closed** **05/23/2012** **06/02/2012** **06/21/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Steve Cunningham **Answered By:** Transbay PMPC Cory Traylor

Co-Author:

REQUEST:

Please refer to RFI U0191.1 and the attached drawings MA-1, MA-29 and MA-31.

1. As per response to RFI U-0191.1, the SFDPW-Bureau of Engineering sketches and letter for the AIC only addresses the motorized gate valve number 21 at Location #7. As new power service will be required at gate valve number 2, Location 1, please provide an AIC letter for this location.

2. Please provide a conformed drawing of the the PG&E clarification sketches provided in RFI U-0191.1 by revising the drawing sheet MA-29 and MA-31, respectively. It is unclear from the PG&E sketches whether the scope from the original contract drawings (MA-29 and MA-31) have changed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Request 1. - Please see attached file for Location 1 labeled "555 Market St. AIC.pdf" letter.
Request 2. - Please see attached PDF file "comments_transbay.pdf" containing comments from Matt Herron of PG&E clarifiying the scope of work for the PG&E power connection points at locations #1 and #7.
Also, please see information on location of manhole #5414 below per PG&E Matt Herron below;"The Vault 5414 is in the South Side, sidewalk of Market St. about 10' East of the West Property of 555 Market St. There are large vaults IFO 555 Market St. identified as 7300-P/7301-P/7302-P, Vault 5414 is roughly 30' West of those vaults."

Please contact Matt Herron of PG&E when sub-contractor is ready for a PG&E crew to mark the location for the core. Also, Please give Matt Herron two weeks notice when sub-contractor would like to core drill into the vault. This two weeks notice is to allow PG&E to set up and schedule a crew to standby for the core.

U-0191.3 **Amperes Interrupting Capacity (AIC) at AWSS Location #1 (Market St.)** **Closed** **06/28/2012** **07/08/2012** **07/16/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

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Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The response to RFI #U-0191.2 does not answer the question posed in the RFI.

As mentioned in the previous RFI there appears to be a difference in the PG&E drawings provided in the original response and the contract drawings.

See attached M Squared's interpretation of these PG&E drawings. Please confirm if this interpretation is correct.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

7/16/2012 Kenny Chin's (SFDPW) response,

"The interpretation of MA-31 is correct. The contractor shall route the conduit from the meter enclosure to vault 1813. The interpretation of MA-29 is correct. The contractor shall route the conduit from meter enclosure to vault 5414 but the contractor shall find out with PG&E which one is the exact vault 5414."

U-0192 **AWSS Strong Backs** **Closed** **01/18/2012** **01/28/2012** **02/08/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Current project drawings show that this project requires two (2) 14¿ Strong Backs and two (2) 10¿ Strong Backs to be used at different locations.
Olympic Foundry does not produce strong backs and were unable to include them in the order to M Squared. M Squared has contacted several sources trying to locate the strong backs but have yet to find a supplier.
Please advise if it is possible to purchase these from the City stock.
If this is not possible M Squared will have no other option but to have them manufactured at a steel mill and this may take a considerably long time due to the lead time in the specialized steel.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/3/2012 Response per Michael Smith (SFDPW),

-"We have been advised that the SFWD does not have the requested strong backs in their inventory.

-Typically strong backs were torch cut at local machine shops that handle larger fittings. Suggest contacting other contractors who have performed AWSS work for sources."

Signed and dated 02/01/12

U-0193 **2nd to 1st St - Various Conflicts** **Closed** **03/08/2012** **03/18/2012** **03/21/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Steve Cunningham

Co-Author:

REQUEST:

See attached sheet which details the conditions discovered in the potholing operations between 2nd Street

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/20/2012 Michael Smith's (SFDPW) response,

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and 1st Street.
Please use Submittal TG04.2-024.1 for reference.
Please provide direction on how to proceed at each location.

"Please see response on attached sheets for conflicts at particular station numbers as listed in this RFI."

Signed and Dated (3/20/12)

U-0194 **AWSS Strong Back Dimensions** **Closed** **03/13/2012** **03/23/2012** **03/21/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Steve Cunningham

Co-Author:

REQUEST:

On the detail for the strong backs on the San Francisco Standard AWSS Plans M Squared has discovered an error in the dimensions for the 14" strong back. Dimension C (outside diameter) is smaller than dimension B (inside diameter). See attached.

M Squared believes the OD should be 27.37". Please confirm.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/14/2012 Michael Smith's (SFDPW) response,

"M Squared is correct. Thank you for pointing this out. We will update our drawing."

Signed and dated 3/14/12. (See Attached)

U-0195 **Parking Sensors on Mission** **Closed** **03/13/2012** **03/23/2012** **04/16/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

M Squared has discovered that either SF Park or MUNI have installed what appear to be sensors in the street surface along Mission Street. See photo attached.

They existing between Fremont and Beale in particular.

As the AWSS line is installed along Mission St from 2nd to Main these sensors will be in conflict. Please confirm these sensors will be removed prior to trenching.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/12/2012 Per email conversation with Alex Demisch of the SFpark Project (SFMTA), any parking sensors found on Mission Street from 2nd Street to Main Street are inactive. SFPark's vendor plans to remove these parking sensors late April or early May of this year 2012. SFPark realizes TJPA plans to conduct AWSS construction work in the upcoming months and has asked if it was possible to for the TJPA sub-contractor, once AWSS construction begins, to separate the parking sensor equipment

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from other construction debris so that SFPark may dispose electronic waste properly if there are any parking sensors still remaining. However, if the parking sensors cannot be separated then SFPark understands they will end up being demolished from TJPA AWSS construction work.

U-0196 **AWSS Pipe Bedding Material** **Closed** **04/02/2012** **04/12/2012** **04/09/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Section 02225-2 2.2 specifies that the bedding material for the new AWSS piping shall be crushed rock, however section 02723-18 2.12 contradicts this by specifying the bedding shall be pea gravel.
Please clarify.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/9/2012 Refer to submittal package TG0402-029 - Pipe Bedding Pea Gravel for approved AWSS pipe bedding material.

U-0197 **AWSS/PG&E Phase 2 Duct Conflict** **Closed** **04/05/2012** **04/16/2012** **04/16/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

See attached photo. M Squared discovered a conflict on 4/4/12 at 11.10am while excavating to remove the existing AWSS Main at Howard and First.

PGE's new Phase 2 duct package is sitting directly on top of the existing AWSS main at First and Howard intersection. The top and sides of the duct bank are encased in concrete however the PVC conduits are not encased on the bottom and the PVC Conduits are currently touching the AWSS Main at this location.

As a result M Squared is unable to remove the existing AWSS main from this point east.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/12/2012

Please confirm that the Phase 2 PG&E duct package that is in conflict with the AWSS main was installed at the correct elevation per the approved Phase 2 Utility plans.

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Please advise on how you would like to proceed.

U-0197.1 **AWSS/PG&E Phase 2 Duct Conflict Location 7** **Closed** **04/16/2012** **04/26/2012** **04/17/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

The Phase 2 PG&E plans only provide minimum depths and clearances. It appears the Phase 2 ducts were installed in accordance with the minimum depth requirement but not the minimum clearance requirement. Please confirm this with PG&E.

Regardless, the AWSS main can not be reinstalled per plan and maintain minimum clearance required in the AWSS specification. Please advise how M Squared is to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Michael Smith's (SFDPW) response,

"Per a site inspection this morning with SFWD, M2, Turner, and Webcor/Obayashi, the clearance conflict between the recently installed PG&E duct bank and the existing 12-inch cast iron AWSS main was confirmed. The duct bank conduits are in direct contact with the existing AWSS pipe.

The two options to rectify this situation include:

1.) Request that PG&E or their contractor vertically relocate the recently installed duct bank in order that there is the required 12-inch clearance between the two utilities.

2.) Realign the proposed replacement AWSS main either over or under the PG&E duct bank by the installation of a vertical offset.

Should option No. 2 be selected, please advise as soon as possible since revision drawing(s) for the vertical offset will need to be prepared prior to the installation of the vertical offset."

Signed and Dated 4/11/12.

The phase two duct bank was not installed per PG&E Green Book requirements for minimum clearance between utility services, and the contractor failed to

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

properly coordinate utility installation.

Work related to this RFI response shall be performed at no additional cost to the owner.

U-0197.2 **AWSS-PG&E Phase 2 Duct Conflict** **Closed** **04/23/2012** **05/03/2012** **05/02/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Through detailed analysis and discussions with PG&E during the weekly AWSS coordination meetings it has been determined that it would be infeasible to relocate the PG&E duct bank as requested in option one in the response to RFI#U-0197.1.

Please provide details for realigning the AWSS main referenced in option two in the response to RFI#U-0197.1.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/23/2012 Michael Smith¿s (SFDPW) response,

"The contractor shall install a vertical offset under the PG&E duct bank using four (4) 22 ½ - degree elbows as required to maintain a minimum 16-inches vertical clearance between the new 12-inch ductile iron AWSS main and the recently installed PG&E duct bank. Please refer to the attached sketch."

Signed and dated 4/16/12

This work shall be performed at no additional cost to the TJPA.

U-0198 **Vault Drainage** **Closed** **04/09/2012** **04/09/2012** **04/16/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

1. On sheet MA-26 the 1" discharge piping inside the manhole is labeled as stainless steel in the detail drawings

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/11/2012 Michael Smith's (SFDPW) response,

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

but is described as type K copper tube in the manhole construction note #7. Please confirm what type of material is required.
2. Spec Section 02728-23 Paragraph E. calls for the use of ball float valves as shown on the construction drawings. However the float valves are not shown on the drawings. Please confirm if these ball float valves are required.

1.) The piping within the sewer manhole shall be Type 304 stainless steel.

2.) The contractor shall disregard the installation of the ball float valves for the three (3) concrete motorized gate valve vaults in this contract due to the installation of electrical sump pumps to be installed at all three (3) locations.

Signed and Dated 4/10/12

U-0199 **PG&E Vault Conflict with North East Tie In @ Location 7** **Closed** **04/16/2012** **04/26/2012** **04/23/2012** **Potentially** ☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Today while setting up to remove and cast the new lead joint at the North East tie in at location 7 it was discovered that the existing PG&E vault adjacent to the tie in is too close and E. Mitchell would not be able to properly caulk the lead joint.
Please advise how M Squared is to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/20/2012 Michael Smith's (SFDPW) repsonse,

"The contractor shall request PG&E to relocate their facilities in order that there is the required 12-inches minimum clearance between the AWSS main and the PG&E electrical vault.

Should PG&E not be able to relocate their facilities, the contractor shall excavate approximately 12-feet east on Howard Street to the next existing pipe joint (GHB joint from the 12"x10" cast iron GHBxGH spigot reducing adaptor for the 10-inch gate valve) in order to connect the new ductile iron AWSS main to the existing cast iron main. The contractor shall locate any new bell and spigot pipe joints before after the concrete vault wall."

Signed and dated 4/16/12

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	*Subject*	*Status*	*Date Created*	*Date Required*	*Date Answered*	*Cost Impact*	*Proceed*
U-0200	**AT&T Vault Conflict at Location 7**	**Closed**	**04/16/2012**	**04/26/2012**	**04/23/2012**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

It has been discovered that the AT&T vault near the North West tie in of Location 7 is in conflict with the new AWSS pipe and tie rods to be installed at this location.

Please advise how M Squared is to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/20/2012 Michael Smith's (SFDPW) response,

"The contractor shall request ATT to relocate their electrical vault or remove portion of the vault wall as required in order that there is the required 12-inches minimum clearance between the AWSS main and the ATT electrical vault. "

Signed and dated 4/16/12 (see attached)

Contractor to document all coordination with AT&T regarding this conflict.

U-0200.1	**AT&T Vault Conflict at Location 7**	**Closed**	**04/24/2012**	**05/04/2012**	**04/24/2012**	**Potentially**	☐

From: Webcor Construction LP Colin Azevedo **To:** Turner Construction Compan Jeff Thiel **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

The response to RFI#U-0200 did not properly document the coordination efforts and course of action. Please provide a revised response.

See attached email chain for additional information.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/24/2012 Michael Smith's (SFDPW) original response to RFI U-0200,

"The contractor shall request ATT to relocate their electrical vault or remove a portion of the vault wall as required in order that there is the required 12-inches minimum clearance between the AWSS main and the ATT electrical vault"

Signed and Dated 4/16/12 (See attached)

A Coordination meeting was held on 4/18/12 with ATT, MSquared, W/O and Turner. It was agreed that M Squared would attempt to deal directly with the utility company. If an agreement could not be made the TJPA would be notified.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

U-0201 **AWSS - Countersunk Bolts in 14-Inch Ductile Iron Pipe Strong Back Plate** **Closed** **05/04/2012** **05/14/2012** **05/08/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Steve Cunningham **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please reference attached excerpt from the AWSS STANDARD DRAWING III, drawing No. AWSS 3.

The sizing chart for 14" diameter pipe require the use of Strong Back Type B. The Type B Strong Back configuration requires the use of a countersunk bolt and nut to adjoin connecting DI pipe. The countersunk bolts are a special order product and will have to be fabricated specifically for each piece.

Please confirm it is acceptable to use the typical 316 Stainless Steel bolt and nut without the countersink, similar to what is used and shown in Type A for all 14" diameter DI pipe.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 5/7/2012 Michael Smith's (SFDPW) response,

"-The proposed change is acceptable.
-The Contractor shall field verify the actual pipe outside diameter at each location prior to having strong back fabricated due to differing pipe diameters in use."

Signed and date 5/7/12 (See Attached)

U-0202 **SLUDGE LINE - Unknown Subsurface Structure at 301 Mission** **Closed** **06/07/2012** **06/17/2012** **06/12/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Steve Cunningham **Answered By:** AECOM Technical Servic Eric Zagol

Co-Author:

REQUEST:

Please refer to attached detail 3/U-5001.

Detail 3 on sheet U-5001 which shows the connection detail for 12" HDPE to existing 10" steel, uses a 10" steel to 12" sleet reducer and then using a 12" steel to 12" HDPE Coupling in order to connect new sludge main to existing sludge main.

Our preference is to use a 10" steel to 10" HDPE coupling and then install a 10" HDPE to 12" HDPE Reducer. As the O.D of the existing sludge is unknown it will cause significant delay in the ordering of the 10" steel to 12" steel

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Proposed modification is acceptable.

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reducer as we will have to get the OD at the connection point and then order the material. Even with this piece of material, it will be extremely difficult to get a welder into the trench to weld the reducer on to the exiting pipe as a result of the amount of utilities which were discovered in potholing.

The use of the 12" HDPE to 10" HDPE reducer eliminates the need for a welder in the trench.

U-0203 **AWSS - Compaction Method for Trade Package TG04.2** **Closed** **06/08/2012** **06/18/2012** **06/11/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Steve Cunningham **Answered By:** City and County of San Fr Michael Smith

Co-Author:

REQUEST:

Specification section 02225 Section 3.7 C forbids the use of flooding or jetting in order to gain the necessary levels of compaction in the AWSS pipe trench.

However due to the amount of utilities and duct packages in the trenches it will not be possible to gain the necessary levels of compaction under and around these utilities by utilizing the methods referenced in the specifications. By not gaining the necessary compaction around utilities it is possible that voids will occur over time causing the utility to be come unsupported and the street surface to sink.

We are requesting the use of jetting (as described in Section 703.08 of the City and County of San Francisco Standard Specifications) as a method to gain the necessary levels of compaction for the AWSS trenches. Jetting has previously been utilized as a successful method of gaining compaction levels on several other Transit Center Utility Relocation packages.

Please confirm that this proposed method is acceptable for use on this trade package. If not, please provide an alternative method for gaining the necessary compaction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

6/11/2012 Michael Smith's (SFDPW) response:

"Water jetting to compact soil will be approved for locations where there are adjacent utilities that prevent compaction by vibratory methods. Use vibratory compaction once the backfill is clear of utilities and up to finish grade under road base/paving."

U-0204 **SLUDGE LINE - Compaction Method for Trade Package TG04.66** **Closed** **06/22/2012** **07/02/2012** **06/22/2012** **Potentially** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author:

REQUEST:

Specification section 33 34 10 (3.1, C¿]7) forbids the use of flooding or jetting in order to gain the necessary levels of compaction in the HDPE pipe trench. However due to the amount of utilities and duct packages in the trenches it will not be possible to gain the necessary levels of compaction under and around these utilities by utilizing the methods referenced in the specifications. By not gaining the necessary compaction around utilities it is possible that voids will occur over time causing the utility to be come unsupported and the street surface to sink.

M Squared is requesting the use of jetting (as described in Section 703.08 of the City and County of San Francisco Standard Specifications) as a method to gain the necessary levels of compaction for the AWSS trenches.

Jetting has previously been utilized as a successful method of gaining compaction levels on several other Transit Center Utility Relocation packages (see RFI0203).

Please confirm that this proposed method is acceptable for use on this trade package. If not, please provide an alternative method for gaining the necessary compaction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Void. See RFI U-0206 for response.

U-0205	SLUDGE LINE - HDPE Hydrostatic Testing	Closed	06/22/2012	07/02/2012	07/05/2012	Potentially ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please refer to spec section 33 34 10-3.1 H

The method of HDPE pipe testing listed in the contract documents differ from the testing methods provided by the pipe manufacturer: The specifications call for the pipe to be filled 24hrs in advance and then the pipe pressurized to 115psi for a duration of 4hrs, The manufacturer's method involved filling the line with pressure for 3 hrs to allow expansion etc. in the pipe and then adding additional water, per Table 2 of the attached document. Once this additional water has been added the pressure can hold for the duration listed. Or alternatively allowing a 5%fluctuation in the pressure target for the test over 1

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 7/3/2012 It is acceptable to perform HDPE Hydrostatic Testing per HDPE pipe manufacturer's recommendations. The test phase shall be performed based on the specified "Test Phase - Alternate 2" in manufacturer's data sheet for 3-hour test.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

hour.

Please see attached pipe manufacturer's data attached and provide direction. M Squared believe that the testing method in the specifications is not suitable for HDPE due to its flexibility and would be more suited to steel pipe.

U-0206 **SLUDGE LINE - Compaction Method for Trade Package TG04.6** **Closed** **06/22/2012** **07/02/2012** **07/05/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Specification section 33 34 10 (3.1, C-7) forbids the use of flooding or jetting in order to gain the necessary levels of compaction in the HDPE pipe trench. However due to the amount of utilities and duct packages in the trenches it will not be possible to gain the necessary levels of compaction under and around these utilities by utilizing the methods referenced in the specifications. By not gaining the necessary compaction around utilities it is possible that voids will occur over time causing the utility to be come unsupported and the street surface to sink.

M Squared is requesting the use of jetting (as described in Section 703.08 of the City and County of San Francisco Standard Specifications) as a method to gain the necessary levels of compaction for the Sludge Line trenches.

Jetting has previously been utilized as a successful method of gaining compaction levels on several other Transit Center Utility Relocation packages (see RFI0203).

Please confirm that this proposed method is acceptable for use on this trade package. If not, please provide an alternative method for gaining the necessary compaction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Zagol 7/5/2012 Flooding or water jetting is not an acceptable method of compaction for HDPE pipe trench backfill.

In limited areas, under and around adjacent utilities, consider using a low strength, low water content concrete fill material. Submit proposed alternate backfill material and mix design for review.

U-0206.01 **SLUDGE LINE - Compaction Method for Trade Package TG04.6** **Closed** **07/05/2012** **07/15/2012** **07/17/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

See attached previously approved backfill mix designs in submittal package TG0434-006.

Please clarify if either of these can be used as a backfill material mentioned in the response to RFI U-0206.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Eric Zagol 7/17/2012 Provide mix design with 28-day compressive strength no greater than 100 psi.

Jeff Thiel 7/17/2012 If a concrete fill material is to be used, submit mix design for approval.

U-0207 **AWSS - Connection on Market Street** **Closed** **07/10/2012** **07/20/2012** **07/11/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay Joint Powers Au Jennifer Tongson

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

While excavating to expose the existing AWSS Main on Market Street M Squared's crew discovered that a portion of the existing cast iron main had already been abandoned in place. They then discovered a ductile iron main that is running parallel to the cast iron pipe.

The ductile iron main is the portion of pipe that is live and this is the line we should now be connecting to in order to proceed with the work. See attached photos. Please note that additional costs will be incurred, as a result of this unforseen condition.

Please advise on how M Squared is to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

7/11/2012 Michael Smith's (SFDPW) response,

"-The contractor shall connect the new 14" DI pipe to the (E) 14" DI pipe on the East end of the excavation to the nearest pipe joint to the original CTEL location.

-Where possible, please deflect new pipe joints 1 degree to compensate for (E) joint deflection at CTEL joint."

Signed and dated 7/11/12. (See Attached)

Pending TJPA approval, a CR for additional cost is forthcoming.

U-0208 **AWSS - Clearance Issues with Domestic Water Line on Market Street** **Closed** **07/10/2012** **07/20/2012** **07/11/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Transbay Joint Powers Au Jennifer Tongson

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

While excavating west of the gate valve vault location on Market Street M Squard's crew discovered an 8-inch cast iron water line sitting on top of the existing AWSS main to be removed. This 8-inch line also appears to be leaking slightly.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

7/11/2012 Michael Smith's (SFDPW) response,

"-The Contractor shall request the SFPUC SFWD relocate their (E) 8" low pressure water piping in order to maintain a 12" clearance between their own two

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1. As a result of this line M Squared is unable to install the new AWSS with the necessary clearances. Aside from the clearance issues M Squared can no longer install the 14-inch reducer where it is required. M Squared will be able to relocate the reducer which will then require a longer spool piece.

Please advise how M Squared is to proceed.

2. This 8-inch line also has three concrete kickers on the pipe that make it impossible to install the pipe and fittings at this vault location. Please confirm that it is acceptable to remove these kickers temporarily, as they are already restrained with tie rods, for construction purposes. The kickers can be reinstalled once the work in this location has been completed.

utilities.

-Please coordinate with SFWD prior to removing the (E) concrete thrust blocks on the SFWD line. Support SFWD line as required to prevent movement."

Signed and Dated 7/11/12 (See Attached)

Pending TJPA approval, a CR for additional cost is forthcoming.

U-0208.01 **AWSS - Clearance Issues with Domestic Water Line on Market Street** **Closed** **07/24/2012** **08/03/2012** **08/03/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per the response to RFI # U-]0208, M Squared met with SFWD engineers on site to discuss the relocation of the domestic 8-inch line.

As a result of this coordination, SFWD agreed that relocating the 8-inch line was the best possible resolution to this issue. M Squared has excavated and shored for SFWD crews to perform the repairs.

As of 7/23/12 no relocation work has been performed by SFWD.

Please provide M Squared with a schedule for this relocation.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 8/2/2012 Per Dan Helminiak of the SFWD, the SFWD is scheduled to relocate the 8" water line on the morning of Monday 8/6/12.

U-0209 **AWSS - Misison and Anthony Valve Vault** **Closed** **07/26/2012** **08/05/2012** **08/07/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

See attached documents and photos.

M Squared has potholed this location for the AWSS valve vault. It has been confirmed that the gas line is abandoned and can be removed and that the 12" water is also abandoned.

In order for the vault to be constructed here M Squared will need to remove the abandoned 12" line; however, removing the 12" line will significantly weaken the live 8" line that runs on Anthony as the 90 degree bend on the 8" line is supported by a redwood block resting against the abandoned line.

Please advise on how M Squared is to proceed.

SUGGESTION:

Have SFWD restrain the existing 90 degree bend so that the abandoned lines and redwood plug can be removed. UPon completion of the valve vault M Squared can our a new concrete kicker if required by SFWD.

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 7/30/2012 Response per Chi Yu of SFWD,

" The redwood plug is for the abandoned line to stop any residual water in the pipe and does not serve as a kicker. The live 8" main was built quite recently using a field-lok gasket restraint joint. No kicker is required. Remove the 12" and 8" abandoned lines together with the redwood plug. Provide adequate vertical support for the live 8" main."

See attached email from Chi Yu dated 7/30/12.

U-0210 **AWSS - 12" Water Conflict at 1st and Mission Street** **Closed** **07/26/2012** **08/05/2012** **08/10/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

While performing the preliminary excavation across 1st and Mission street Intersection, M Squared's crew exposed a 12" water line that is running on top of the AWSS line for approx half of the intersection. Due to other utilities being present we are unable to excavate down to the AWSS main.

M Squared met with SFWD crews on site and they have confirmed that the line is active, despite them agreeing with M Squared that the line sounded very hollow (an indication that it may be dead)

M Squared believes that despite the presence of many unknown utilities they will still be able to remove and replace the existing AWSS main if this 12" water line can be abandoned or relocated.

Please advise on how M Squared is to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 8/10/2012 Chi Yu's (SFWD) response,

"SFWD will cut and cap both ends of the 12" line that is on top of the AWSS Main and restore the 12" main at the same location after the new AWSS line is in place."

SFWD will require two weeks advance notice prior to starting this work.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0211	AWSS - Valve Vault at Sta 9+05	Closed	08/06/2012	08/16/2012	08/14/2012	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

REQUEST:

Please refer to that attached photo and schematic of current condition.

M Squared has identified the space at Sta 9+05 as the only viable location for the gate valve in that area. However several utilities remain in conflict with this location:

- The MCI lines are plastic and the correspondence has already began with MCI to move these lines 2' south during AWSS Main installation
- The 3 x 2" Steel Electrical lines have been confirmed active by PGE representatives
- All remaining lines are unknown.

Please advise on how you would like M Squared to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Request known utilities to relocate as required to install AWSS valve vault and piping.

Request site to be remarked for assistance in determining remaining unknown lines.

Michael B. Smith SFDPW/JDC/EME - 08-13-12

U-0212	AWSS - Various Conflicts - Sta 9+12 to PG&E Vault	Closed	08/07/2012	08/17/2012	08/30/2012	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

REQUEST:

While performing preliminary trenching across 1st & Mission Street Intersection, M Squared's crew discovered many unknown and unmarked utilities. See attached photos.

The presence of these unknown utilities will greatly impact the ability to install shoring and install full pieces of pipe. Please Identify the utilities in this section and determine which can be removed in order for M Squared to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

The TJPA Representatives do not have any further information on the unidentified utilities not shown on the Contract Drawings. Please proceed as follows in order to identify these utilities:

Request the list of contacts registered with USA and compare those who marked with those that didn't mark and conduct follow up calls to the utilities and agencies that didn't mark. Also, contact SFPUC BLHP to mark street lights and DTIS comm and SFMTA to mark traffic signals.

In accordance with specification 00 08 10 section 1.3 EXISTING UTILITIES NOT INDICATED and specification 020630 section 4.1 POTHOLING AND TRENCHING OPERATIONS paragraph C, please proceed with the following in order to identify all interfering utilities that are unknown after all specified procedures or other non destructive methods

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

proposed by the contractor have been exhausted

Pipe: If conductive material, perform subsurface investigation via electromagnetic detection (or other nondestructive methods) to trace utility back to nearest vault, pull box, manhole or valve to identify owner and content. If nonconductive, excavate along pipe alignment to expose coating and a joint. Inspect and provide information on coating and joint type. If content is still unknown, tap each line in order to identify contents and operating status of utility (i.e. abandoned or operational.)

Conduit and duct bank: Determine if utility is a charged electric utility utilizing a contractor that performs NETA type work. Determine if telecommunication cables are operational.

Once the utility has been identified including owner and contents, and determined inactive or de-energized, cut and cap utility at the demolition demarcation line shown in the drawings

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U-0213 **AWSS - Antenna At Location #7** **Closed** **09/11/2012** **09/21/2012** **09/12/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Sheet MA - 22 of the contract drawings shows the antenna for location #7 being mounted on the existing street light pole.

Sheet MA - 31 shows that the antenna is mounted on an antenna pole in the sidewalk.

Please clarify where the antenna pole is to be located.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 9/12/2012 Response per Kenny Chin, (SFDPW)

"What is showing on Sheet MA-31 is correct. The contractor shall provide antenna pole and atenna shall be mounted to this antenna pole."

U-0213.01 **AWSS - Antenna at Location #7** **Closed** **09/13/2012** **09/23/2012** **09/20/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to RFI U-0213 and SFDPW drawing File No. 87,208 and 87,212.

As no detail for the antenna pole foundation is provided in the contract documents, please advise if the standard detail for San Francisco Light Poles is an acceptable foundation of the antenna pole indicated on drawing MA-31.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Yes, the standard Detail for San Fransisco light pole is acceptable foundaiton of the antenna pole.

Kenny Chin 9-17-12

U-0214 **SLUDGE LINE - Air Release Valve at Sta 17+25** **Closed** **09/28/2012** **10/08/2012** **11/09/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The air release valve (ARV) installed on Mission St. at Sta 17+25 is currently only accessible via 12" ductile iron pipe with a 12" cap. M Squared is unable to construct the air release valve manhole per detail #1 on Sheet U-5001 due to the presence of the concrete wall that is in place.

1. Please advise if it is acceptable to leave the 12" ductile iron in place or install a larger diameter ductile pipe (possibly 16") and customize a cap for the ARV

2. Alternatively please provide a detail for the air release valve manhole

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Construct the ARV vault at the location shown on the attached drawing "U-3005 markup.pdf" & the sketch "proposed ARV vault in Mission St.pdf" after the new AWSS HPW constructed and existing 12" AWSS HPW ben demolished.

Coordinate with SFDPW for schedule.

U-0215 **AWSS - Hetch Hetchy Duct Bank Conflict** **Closed** **09/28/2012** **10/08/2012** **10/12/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

At Sta 2+40 on Mission St (Anthony St intersection) the existing AWSS Main runs through a Hetch Hetchy duct bank. There are several concrete encased ducts on top of the AWSS Main and several concrete encased ducts under the AWSS main.

On Friday 28th September, M Squared met with MUNI

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"-Abandon (E) 12" AWSS Main as described above.

-F/I vertical offset over HHWP Duct Bank as shown on the attached sheet."

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Underground Services and they have requested that the AWSS be abandon 1-ft on each side of the duct bank and install the new AWSS Main over or under this Hetch Hetchy duct bank.

Please advise how you would like M Squared to proceed with this conflict.

Signed and Dated 10/11/12. (See attached)

A formal Cadd drawing is forthcoming.

Pending TJPA approval, a CR for additional cost is forthcoming.

U-0216 **AWSS - Gate Valve at Station 1+09** **Closed** **10/04/2012** **10/14/2012** **10/15/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to attached drawing MA-13.

Due to the location of existing utilities M Squared is unable to install the gate valve at Sta 0+90, as shown on sheet MA-13. Please confirm it is acceptable for M Squared to install the valve at Sta 1+90. M Squared has confirmed there are no conflicts at Sta 1+90.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 10/11/2012 Response per Michael Smith (SFDPW),

"This gate valve location is acceptable per our discussion in the field last week. Please note that the two flanged x MJB adaptors will require stop collars/collar stops on the connecting D.I. Pipe."

Signed and Dated 10/10/12. (See attached)

U-0217 **AWSS - 16" Gate Valve at Sta 5+00** **Closed** **10/12/2012** **10/22/2012** **10/15/2012** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Drawing Reference: MA-14

Please confirm that the 16" gate valve at Sta 5+00 can be deleted and is not required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 10/15/2012 Response per Michael Smith (SFDPW):

"This gate valve and concrete valve vault can be deleted from the scope of work."

Signed and Dated 10/15/12. (See Attached)

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

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Pending TJPA approval, a deductive CR may be issued.

U-0218 **AWSS - PG&E Duct Bank Conflict at Sta.6+05 to Sta. 6+25** **Closed** **11/06/2012** **11/06/2012** **11/15/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Between Sta 6+05 and Sta 6+25 there is a PGE duct bank sitting on top of the AWSS pipe; as a result, M Squared is unable to install the new AWSS main at this location. See attached photo. The pipe cannot be lowered due to the AWSS penetrating PGE Vault #1302. In order for M Squared to be able to install the new AWSS main through PGE vault #1302, the PGE duct bank needs to be raised up.

Please advise.

SUGGESTION:

PG&E remove concrete encasement from ducts and lift the PVC conduits up so that M Squared can install the pipe at the existing alignment.

ANSWER: **Accept Suggestion:** ☐

- SFDPW accepts M Squared's suggested solution for this utility conflict.
- Coordinate with PG&E for remvoing concrete and raising conduits in order to install AWSS facilities and proivde 6-9" clearnce. Michael Smith SFDPW/IDC/EME - 11/09/12

U-0219 **AWSS - PG&E Vault #1313 Conflict with 4x4 Support Post** **Closed** **11/06/2012** **11/16/2012** **11/29/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

On 10/26, PGE completed work on Vault #1313 on Mission Street. The existing AWSS pipe has been removed and M Squared is ready to install the new AWSS Main per the attached sketch (current condition).

In order for M Squared to install the AWSS pipe, the five 4"x4" supports installed by ARB crews require removal. As a result, a portion of the vault wall will overhanging the pipe, with no support.
.
Please advise if this is acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 11/9/2012 Response per Michael Smith (SFDPW)

"Per field meeting today, support AWSS pipe through cut in (E) PG&E vault as follows:

-Support (N) 16" AWSS pipe over vault under hang with a CDF "cradle" for the length of the vault. Pour CDF to 5 and 7 O'clock pipe positions.

- Backfill pipe with jetted sand to vault overhang.

-Fill vault concave spaces with CDF over sand backfill

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through (N) 8" Diameter holes chipped into the top of the vault."

Signed and dated 11/20/12. (See Attached)

Per meetings with PG&E, M Squared to perform this work.

U-0220 **AWSS - MultiQuip Sump Pump** **Closed** **01/23/2013** **02/02/2013** **01/29/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to the attached excerpt from spec section 02728 AWSS Motorized Gate Valve Equipment and product data for the MultiQuip Sump Pump: ST2037.

As per coordination between Aidan Foley and Michael Smith, please confirm the attached MultiQuip Sump Pump: ST2037 is an acceptable alternate to the specified manufacturer Flygt, Model 2610 in specification section 02728- 2.13,A.

Please note the MultiQuip Sump Pump: ST2037 is being submitted for approval in WOJV submittal package TG04.2-031 - AWSS - MultiQuip Sump Pump.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Per SFPUC, only the contract specified submersible pump will be accepted for installation in the AWSS motorized gate valve vaults.

Michael B. Smith SFDPQ/IDC/EME on 01/29/13

U-0221 **AWSS - Pipe Joints in Utility Vaults** **Closed** **01/31/2013** **02/10/2013** **02/06/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per recent field direction provided by the City inspector to M Squared Construction, where possible no joints are permitted inside utility vaults (i.e PGE, ATT)

This will require an additional restraint joint at each vault location.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/5/2013 Response per Michael Smith (SFDPW),

"This is the intent of both SFWD and SFDPW due to utilities constructing their facilities over/around the pre-existing AWSS lines. Please notify engineer in

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Please confirm this is the intent.

advance should joints be required to be placed in vaults due to the length of vaults. (16'+)"

Signed and Dated 2/1/13. (See Attached)

U-0222 **AWSS - Flanged Spools for Hydrants** **Closed** **01/31/2013** **02/10/2013** **02/06/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Reference Drawings: MA-14 & MA-15

Hydrant at Sta 6+30
Contract drawings show the 45deg bend being connected directly to the rolled down tee. However the hydrant lateral is
much lower than the main and it will not be possible to connect them directly together.

Hydrant at Sta 9+00
Due to the changes per RFI U-190 M Squared are to install the new fire hydrant in the same location as the existing, in
the breezeway. As a result the new hydrant lateral will be higher than the newly installed main (the grade of the main being dictated by various utility conflicts).

Please confirm M squared's suggested mediation is how M squared is to proceed

SUGGESTION:

Hydrant at Sta 6+30
Suggestion - custom fabricate a HPW flanged x flanged spool for to connect to the tee and the 45deg bend.

Hydrant at Sta 9+00
Suggestion - In order to connect the tee to the 90deg bend a HPW flanged x flanged spool, custom fabricated will be
necessary.

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/5/2013 Response per Michael Smith (SFDPW),

"-Hydrant at station 6+30 - Proceed as required due to unforeseen field conditions.
-Hydrant at station 9+00 - Per field / phone conversations with M2, Pipe spool is no longer required at this location."

Signed and Dated 2/1/13. (See Attached)

U-0223 **AWSS - Electrical Sevice at 2nd Street Intersection** **Closed** **02/06/2013** **02/16/2013** **05/20/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The contract drawings show M Squared replacing the existing 10" gate valve on Mission at 2nd St with a new 16" gate valve. Due to a PG&E conflict M Squared will

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 5/20/2013 Existing PG&E service has been disconnected and removed. See attached drawing for new routing of PG&E power service connection from

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have to now move the valve location north onto 2nd Street.

In moving the vault M Squared will now have to relocate the existing electrical service to the new vault location. M Squared will need the service disconnected so that all existing electrical cable and conduits can be removed.

Once the new vault has been constructed M Squared can reestablish the service to the new vault location.
These were previously thought to be street lighting conduits as mentioned in RFI U-182.2 and will need to be removed for the construction of the new vault anyway.

The service is currently the responsibility of the SFPUC and PG&E have indicated that any impact to the service needs to be handled by the SFPUC and not M Squared.

Please advise on how to proceed

existing PG&E connection point to a new PG&E meter enclosure.

Please provide pricing proposal for work associated with installing a new connection from PG&E connection point to new meter enclosure as show on the attached drawing. Do not proceed with this work until pricing has been agreed to.

Reconnection for service at this location has been acknowledged from SFPUC (via PG&E) to be about 5 to 6 weeks out.

U-0223.1 **AWSS - Electrical Service at 2nd Street** **Closed** **07/17/2013** **07/27/2013** **07/19/2013** **Potentially** ☐

From: M Squared Construction, Inc. Aidan Foley **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Reference: Attached Drawing

Per the response to RFI U-0223 a new electrical service, a new PGE meter pedestal, and a new drain line was to be installed at 2nd and Mission.
However the drawing provided in the response showed the old AWSS vault location. See attached drawing prepared by M Squared showing the new vault location.

We have established conduit routes for both the new electrical service to PGE vault #1316 and also the drain line to the catch basin.

Please confrim that this acceptable.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"The proposed drain line routing is acceptable provided that the line slopes to the catch basin per the specs. The proposed electrical conduit shall be acceptable provided that it's installation shall conform to PG&Es guidelines."

Signed and Dated (see attached)

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0224	**AWSS - Pipe Alignment between Fremont to Beale**	**Closed**	**02/06/2013**	**02/16/2013**	**02/11/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel
Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The existing AWSS main on Mission Street between Fremont St & Beale St is running through three (3) PGE vaults.

By upsizing the AWSS main to 16" there is a possibility that the pipe will not fit back through the structures. By having PGE move/alter their facilities M Squared believes there will be significant project delays. M Squared will also inevitably have to install the new main within PGE structures, something the SFPUC prefers to avoid.

M Squared believes it is possible to shift the alignment of the new 16" main further north to avoid all of these PGE vaults. See attached potholing results from potholing further north than the existing main. M Squared does not know yet if additional fittings will be needed to shift the alignment north, and then realign it back south at Beale Street. This will not be known until the trench has been excavated.

Please confirm it is acceptable for the AWSS alignment to shift north as currently coordinated to avoid the delay impacts and vault conflicts.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/8/2013 Response per Michael Smith, (SFDPW)

"Shifting the proposed AWSS alignment North is acceptable provided that there are no utility conflicts and the gate valve frames/covers do not end up directly in the gutter due to potential flooding of the vaults."

Signed and Dated 2/8/13. (See Attached

U-0225	**AWSS - Lead Joint Clearances at Sta 6+30**	**Closed**	**02/08/2013**	**02/18/2013**	**02/13/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel
Co-Author: M Squared Construction, Inc. Stewart Mitchell

REQUEST:

Please refer to attached W/O Sketch SK-U-0225 and drawing MA-4.

The newly installed fire hydrant lateral at station 6+30 is to connect to the existing AWSS main; however, the existing main pipe is "oval" shaped and the new pipe is circular. As a result of the differing pipe shapes, the minimum clearances for inserting the "hokum" to draw the lead in when heated are not achieved. The minimum clearance around the pipe required is 1/4".

The existing fitting is part of a series of fittings needed to raise the fire hydrant lateral up in elevation to avoid a

SUGGESTION:

Field condtions appear to indicate that where the existing laterals clears over the sewer, at the next joint there is a possibility of a full length pipe (12'-0") which takes you closer to the curb. There is a possibility to switch out the entire lateral to the fire hydrant.

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 2/13/2013 Response per Michael Smith (SFDPW),

"Due to the unforeseen conflict between the existing AT&T duct bank which was poured directly onto the AWSS Hydrant lateral pipe, blocking access to the next two downstream lead joints, the contractor shall locate a lead joint South of the conflicting duct bank that is readily accessible for their plumber to melt the existing lead joint. The contractor shall then furnish and install ductile iron pipe and fittings to this accessible location in order to connect to the existing cast iron line. The alternate is for AT&T to relocate

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conflict with an existing sewer line. Moreover, there is a duct bank over the sewer and it was poured over the next fitting only compounding the conflict.

Please advise.

their duct bank in order that there is a minimum 12" clearance between the duct bank and the existing AWSS pipe.

Should the duct bank not be relocated, and due to the fact that there will be a minimum amount of cast iron pipe remaining in the hydrant lateral run, the contractor shall provide a cost for removing the remainder of the cast iron hydrant lateral and for replacing with ductile iron pipe and fittings.

Replacing this remaining section of cast iron pipe and hydrant will be an improvement to the SFWD's facilities."

Signed and Dated (See Attached)

U-0225.1 **AWSS - Lead Joint Clearances at Sta 6+30: SFWD Decision to Replace Full Lateral** **Closed** **03/11/2013** **03/21/2013** **03/28/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

As a result of several coordination efforts to discuss potential options, AT&T has chosen not to relocate their duct bank that is in conflict with the hydrant lateral at Sta 6+30. Instead they have agreed to compensate M Squared for the costs to connect to the next most southern joint.

1. Please confirm that this is acceptable, as the response to the previous RFI U-0225 mentioned the possibility of replacing the full lateral including the hydrant.
2. Please advise whether the SFWD want to replace the full lateral. M Squared need to know so an agreement can be reached on materials etc.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/26/2013
Response per Michael Smith (SFDPW),

"CCSF SFWD (Dan Helminiak 420-4521) will coordinate with contractor to provide funding / materials to replace the remaining cast iron portion of the hydrant lateral."

Signed and Dated 3/19/13. (See Attached)

U-0226 **RFI#U-0226 - AWSS - PG&E Duct Bank at 1st Intersection** **Closed** **03/11/2013** **03/21/2013** **03/15/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor/Obayashi Joint V Jackson Tukuafu

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Refer to drawing U-1002, U-2003, MA-15.

M Squared is unable to trench to the connection point as shown on the attached M Squared sketch SK-047.1 and SK-047.2 on First Street due to the presence of two (2) PG&E duct banks in the trench. One duct bank is deeper than the other and is sitting directly on top of the AWSS Pipe that is required to be removed.

Please provide direction to how M Squared will proceed.

SUGGESTION:

Suggestion #1 - Remove existing gate valve and connect to the existing pipe (see attached SK-047.1). Install an IBeam behind the 16" Tee on Mission Street as an alternative restraint system. Please note: In order to perform Suggestion #1 an AT&T duct bank will need to be moved west 2' so M Squared can drill for the I-Beam.

Suggestion #2 - If the AT&T duct bank cannot be moved install an offset from the 16" tee using 22deg bends to get back to original alignment. (see attached sketch SK-047.2)

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 3/12/2013 Response per Michael Smith (SFDPW)

" 1.) Proceed with suggestion No. 1.

2.) Should AT&T not be able to relocate their duct bank, proceed with suggestion No. 2. Replace 22.5 degree elbows with 11.25 degree elbows if fittings are available."

Signed and Dated 3/12/13. (See attached)

After further investigation while this RFI was being reviewed, it was found that the duct bank previously thought to be AT&T is owned by TCG. Do not proceed with either option until TCG has been notified of potential costs and has reviewed the proposed solutions.

U-0226.1 **AWSS - TCG Duct Bank at 1st Street Intersection** **Closed** **06/25/2013** **07/05/2013** **07/08/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to response for RFI U-0226.

As per response to RFI U-0226, M Squared is directed to "Remove the existing gate valve and connect to the existing pipe. Install an I-beam behind the 16" Tee...as an alternative restraint system" in order to avoid two PG&E duct banks in conflict with the AWSS. As a result of the I-Beam being installed at this location, a TCG duct bank would need to be moved 2-feet west.

TCG has determined that the duct bank would take several months to re-locate their duct bank. Therefore, TCG has opted to avoid the conflict by pursuing the suggested 22deg bends as an offset from the 16" tee in RFI U-0226.

Please confirm additional restraints are not required at the

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"The thrust blocks for the two (2) 10" 22.5 degree elbows shall conform to the thrust blocks for 16" pipe as shown on the AWSS standard drawings. Include "crossed" rebar with J-hook ends over the elbows.

Schedule site visit to verify lack of access to (E) line north of proposed 10" connection location."

Signed and Dated, see attached.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

22deg bends or provide all necessary restraints required to for the 10" line at this location.

U-0227 **AWSS - 2nd Street AWSS Gate Valve Vault** **Closed** **04/16/2013** **04/26/2013** **04/22/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Refer to drawing MA-13, MA-3, MA-10

Due to the presence of several PGE duct banks and the steam line that runs along 2nd Street M Squared feels it will be significantly difficult to modify a precast valve vault to fit into the area designated for the vault. As a result, M Squared proposes to construct a cast in place valve vault as has previously installed and approved on Market Street.

1. Please confirm it is acceptable to install a cast in place vault at this location.
2. Please advise if rebar detail attached is acceptable for use.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 4/22/2013 Response per Michael Smith (SFDPW),

"-Due to the existing conflicting/surrounding utilities in the proximity of the AWSS vault location, a cast-in-place concrete valve vault would be acceptable.

-The rebar drawings will need to be stamped again by the structural engineer. Please note that this valve vault is for a 16" gate valve with bypass valve (Two actuators)."

U-0228 **AWSS - Sidewalk Expansion Evaluation between First Street and Beale Street** **Closed** **05/31/2013** **06/10/2013** **10/18/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per the attached email it appears that the City's intent to is to move the curb lines south between First St & Fremont by 3' and also between Fremont & Beale Street by 4'.

First to Fremont St - In moving out the curb line by 3' the AWSS Line on this block will be pretty close to being under the new curb line, therefore making any maintenance of the AWSS line in the future very difficult. There would also be an impact to the gate valve location on the east side of the 1st and Mission intersection and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
10/16/2013
RESPONSE:
- TJPA has not received confirmation from the SFPUC that the new AWSS service can be installed per the contract drawings. As discussed in our weekly coordination meeting after completing the paving in the intersection at First and Mission,M2 is directed to jump to the intersection at Main and Mission and proceed westward towards Beale Street.

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the west side of Fremont & Mission due to the new curb coming south. It is possible a modified roof to the vault would be required as half of the vault would be in the street and another half would be in the sidewalk (judging from rough field measurements). The AWSS Fire hydrant would also need to be relocated as it would now be in the middle of a widened sidewalk, whereas the distance acceptable is 24" to 26" from FOC.

Fremont to Beale Street - The current alignment for the AWSS along Mission between Fremont & Beale is close to the curb on the north side (in order to avoid 3 PG&E utility vaults). By moving the curb 4' south the AWSS line will now be underneath the sidewalk on this block. Similar to above the gate valve vaults would be partially under the sidewalk here and modifications/relocations may be required.

Please advise if M Squared is to continue with the AWSS install per plan. Alternatively please provide direction on the conflicts that moving the sidewalk creates for the main.

- Submit RFI#U-0228.1 once work is complete in the Main Street intersection and request SFPUC's approval to proceed with the original AWSS alignment per contract drawings between Beale and First streets.

U-0229 **AWSS Main @ PGE Vault #1329** **Closed** **06/12/2013** **06/22/2013** **06/17/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Reference: Attached Photo

Please confrim that the new 16" AWSS is acceptable to be in the position shown as there is not the required clearance with the PGE vault #1329

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith, (SFDPW)

"Per a site visit on 6/11/13 with M Squared, the current alignment of the AWSS pipe against the PG&E electrical vault is unacceptable. The AWSS contract documents require a minimum clearance of 12" between AWSS facilities and adjacent utilities. Exceptions shall be made by the engineer on a case-by-case basis per field conditions to decrease the clearance to 6" where required."

Signed and dated 6/17/13. (See Attached)

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0230	**AWSS - AWSS Vault at 2nd Street**	**Closed**	**07/18/2013**	**07/28/2013**	**07/19/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

REQUEST:

Due to the grade of the 16" AWSS gate valve, combined with the valve actuators the roof of the AWSS valve vault at 2nd Street will not be under the surface of the street. Previous AWSS valve vaults have 2" AC/8" concrete street base on top of the roof of the vault.

If M Squared installs the vault roof and then covers it with 2" AC then there is a danger that future contractors will saw cut through the roof of the vault while cutting out their trenches.

Our suggestion is to pour the vault roof to the same grade as the current street surface on 2nd Street. There does not appear to be any room for adjustment here and we are unaware of any other options in this case.

Please confirm it is acceptable to construct the vault roof in this manner, with a concrete broom finish.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"M Squared shall proceed with constructing the valve box cover in a manner such that the portion to be located in the parking strip shall be flush with the surrounding concrete. For the portion of the cover to be located in the paved traffic lane, reduce top surface by 2". Place a sheet of 10 gauge galvanized sheet steel on recessed area of concrete cover. When repaving street, extend A/C paving over vault to provide paving flush with concrete portion of cover/manhole lid.

Signed and dated. (see attached)

U-0231	**AWSS - Concrete Sampling for Kickers**	**Closed**	**07/25/2013**	**08/04/2013**	**08/02/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

REQUEST:

The contract specifications require concrete sampling of all cast in place concrete on the AWSS project. However in the pre-construction QC meeting the City confirmed that the SFWD Inspector - Dan Helminiak is permitted to inspect all concrete thrust blocks.

Due to the small size of the thrust blocks it is not practical for concrete samples to be provided to an inspection agency.

Please confirm that per the agreement SFWD inspector can inspect all concrete used in the AWSS thrust blocks and that no concrete sampling is required.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"It is acceptable to the City for thrust blocks to be visually inspected by the SFWD inspector for compliance with the contract documents. No concrete sampling is required."

Signed and dated. (See attached)

(Jack Adams)
Although the contract specifications require concrete sampling and testing of all cast in place concrete on the AWSS project, the City of SF Engineer of record has allowed visual inspection only by City SFPUC (SFWD) of these concrete thrust blocks. See attached from M. Smith CCSF PUC.

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0232	**AWSS - Schedule Change of AWSS Install**	**Closed**	**07/30/2013**	**08/09/2013**	**08/14/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

REQUEST:

Per our recent AWSS meetings M Squared had been directed by the owners' representative to complete the AWSS install at 1st & Mission intersection and then mobilize to Main Street intersection to begin work down there.

IF M Squared is to begin work at Main St then there will be no connection made on the east side of 1st and Mission. The new 16" line will be installed up to the 16"X10" tee and the 10" connection will be done heading North on 1st.

We can see 3 options that would allow us to proceed to Main Street.

1. Cap the new 16" Tee on the east side of the tee. This would allow the AWSS system to be in service from 2nd Street all the way to the east side of 1st Street, including 1st Street heading towards Market.

2. Perform a connection from the new 16" Tee to the existing 12" AWSS main on Mission east of 1st Street. This would allow the AWSS system to be fully operational from 2nd all the way to Main. This would be temporary as M Squared would presumably return to complete the 16" install here.

3. Leave the new and existing pipe as is. The AWSS main would be operational from 2nd Street all the way to the gate valve on Mission west of 1st Street. The main would remain shut off on the 1st and Mission intersection, and also 1st Street heading towares Market as the new 16" AWSS line would be open at the tee (not capped/connected) and the exisiting 12" would not be connected to anything.

Please provide an option to M Squared to allow us to proceed.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith, (SFDPW)

"Please proceed with Option No. 1 - Capping of the East end of the (N) 16"x16"x12" tee installed at Mission and First Streets. The concrete thrust block to be installed behind the 16" cap shall be poured with 3x the concrete as a typical thrust block for a 16" AWSS fitting. Pour thrust blocks against 12" CI pipe and 16"x16"x1" Steel plate.

Option No. 2 is not approved due to unavailability of fittings for 4-6 months and the vertical/horizontal alignments between (N) and (E) pipes.

Bill Gunn of SFWD approved option No. 1 based on the above issues for implementing option No. 2"

Signed and Dated. (See attached)

U-0233	**AWSS - 16" GV @ sta 9+00**	**Closed**	**08/14/2013**	**08/24/2013**	**08/14/2013**	**Potentially**	☐

From: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley
To: Turner Construction Compan Gary Krutsch
Answered By: Turner Construction Comp Jeff Thiel

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

REQUEST:

Reference: Attached Photos

Technically the 2 operating nuts should be on the same side. That way you can operate the nut on both the valve and the by pass from the 24"x24" valve cover in the street. Now that the nut on the valve is facing a different way there is no possibility that you can access both nuts from the valve cover.

SUGGESTION:

Install an 8" pipe into the roof of the vault and put an 8" valve cover in the street as an access point to the by pass. The main operating nut on the gate calve would accessible from the 24" cover in the street per plan.

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW),

"Our understanding is that the concrete valve vault lid has been fabricated and installed. Please provide an as-built drawing of the placement of the covers and rebar layout."

Signed and Dated. (See Attached)

U-0234 **AWSS - Valve Vault Wiring Clarification** **Closed** **10/17/2013** **10/27/2013** **11/06/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to drawing sheets MA-29, MA-30 and MA-31.

The above referenced drawings show conduit and conductors required for vault wiring. The sheet note number 1on these drawings refer to Limitorque drawings. These Limitorque drawings show additional (54 #14 gauge) conductors in each of the three locations.

Please clarify the total number of conductors and corresponding conduits..

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
11/5/2013
RESPONSE:
This wiring issue for the AWSS Motorized gate valve acruator has been addressed and resolved between Thomas Reid of SFPUC and the contractor. Please see attached email dated 11/1/13. per Michael B. Smith SFDPW/ICD/EME on 11/5/13

U-0235 **RUP - Missing Fittings at Main Street Intersection per Drawing MA-17** **Closed** **12/10/2013** **12/20/2013** **12/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to drawing MA-17 and specification section 00 70 00, 1.05 - B4.

Per the General Conditions, 00 70 00,1.05 B4 , the parts list takes precedence over the drawing details. The attached excerpt from drawing MA-17 identifies fittings that are not shown on the material list. Please confirm the following fittings are required to complete the AWSS new install:

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
Michael Smith
12/18/2013
RESPONSE:
The three (3) 14" stop collars and one (1) 14" bell collar are required to restrain the new piping.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

1. Three (3) 14" stop collar.
2. A 14" bell collar

U-0236 **RUP - AWSS Pipe Configuration at PG&E Vault #1722** **Closed** **12/10/2013** **12/20/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

See attached sketches.

Due to the proximity of PGE's Vault #1722 to the new AWSS line M Squared believes the following changes are needed to keep all pipe joints and fittings outside the limits of existing utility vaults.

M Squared proposes installing the 14" x 12" reducer further east, until we are outside the limits of the vault. The pipe between the new cross piece and the new reducer will be 14-inch pipe, rather than the 12-inch shown on the plans. M Squared will be able to eliminate the need for the 12-inch sleeve here and tie 12-inch pipe into the existing main from the reducer. All joints will be restrained using stop collars.

Please confirm that this configuration is preferred to in lieu having fittings and joints within the limits of the PGE Vault. Please advise.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
12/18/2013
RESPONSE
The proposed AWSS piping configuration is acceptable.
Please have TJPA follow up with PG&E for costs to perform additional work.
Please have SFWD inspector/SFDPW Engineer inspect PG&E vaults after modifications are made to verify clearance requirements.

U-0237 **RUP - Location of Valve Vault at Main Street Phase** **Closed** **12/13/2013** **12/23/2013** **12/19/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to drawing MA-17.

Due to the location of several utilities it is not possible to install the gate valve and valve vault at Sta 19+85 as shown on sheet MA-17. The closest possible location with

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
12/18/2013
RESPONSE
The proposed location at Station 19 = 50 for the 16" gate valve vault is acceptable.

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

adequate space for a concrete vault is at Sta 19+50. See attached M Squared sketch SK-TG04.2-059.

Please confirm that this location is acceptable as the location for the gate valve and the valve vault. If this is an acceptable location, please clarify if 2 joints west of the new valve location are required to be restrained.

All joints between the gate valve and cross, and two joints west of the gate valve, shall be restrained.

U-0238 **RUP - Catch Basin at Sta. 18+75** **Closed** **12/17/2013** **12/27/2013** **12/23/2013** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Gary Krutsch

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The existing catch basin at Sta 18+75, mid-block between Main and Beale on Mission Street is 3.5-inches higher than the surrounding concrete and asphalt. The catch basin itself is only 16-inches deep and does not appear to be active on account of the grate being higher than the surrounding areas.

In order for this catch basin to be utilized the grate would need to be dropped approx 5inches, leaving a catch basin less than a foot deep.

Please advise what steps are required to be taken before M Squared restores the concrete bus lane.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Judy Long
12/20/2013
RESPONSE:
Please revise request per discussion in meeting held 12/20/13

JT/WOJV 12/23/2013 - Please revise to RFI to request abandoning the catch basin.

U-0238.1 **AWSS - Abandoned Catch Basin at Sta. 18+75** **Open** **01/07/2014** **01/17/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:**

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

The existing catch basin at Sta 18+75, mid block between Main and Beale on Mission Street is 3.5-inches higher than the surrounding concrete and asphalt. The catch basin itself is only 16inches deep and does not appear to be active on account of the grate being higher than the surrounding areas.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

In order for this catch basin to be utilized the grate would need to be dropped approx. 5-inches, leaving a catch basin less than a foot deep. It is not possible to install a standard SF catch basin is this location and therefore M Squared suggest abandoning this CB. Alternatively, please provide grades for the restoration of the concrete bus lane to create necessary slopes to this catch basin.

Please advise.

U-0239 **AWSS - The Use of Sand Slurry Backfill at Mission and Main Street Phase** **Open** **01/16/2014** **01/26/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Please refer to drawing MA-17.

Due to the high number of utility duct banks on Main Street & Mission Street Intersection M Squared's crews effectively tunneled under sections of the street in order to install the new AWSS main. Where possible M Squared removed the street base and excavated as much as we could. The remainder of the trench was tunneled under duct banks and under the street, with the street base remaining in place.

Now that all the AWSS main has been installed M Squared will shortly be faced with backfilling this intersection. There is currently only a small portion of trench that can be backfilled using conventional methods i.e ram compactor etc. The remainder of the trench will also not be suitable for backfilling using the jetting method as there will be no way to compact the area directly underneath the street base.

M Squared is requesting permission to create several small holes (approx. 6" dia) in the street base, between some of the utilities and backfill the AWSS trench using a sand cement slurry backfill. See attached submittal sheets. This mix design is effectively sand and water, with just a minor amount of cement included to allow the sand to reach 95% compaction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

If this is not acceptable please provide direction.

U-0240 **AWSS - Concrete Mix and Slump at Parking Strip Placement** **Open** **01/16/2014** **01/26/2014** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Prior to replacing the 6ft wide parking strip on Mission Street at 1st Street it became apparent to us that the articulated semi trucks, buses and other larger vehicles would be unable to a make the turn from southbound 1st Street onto Mission Street if the 6ft wide parking strip was barricaded in order to let the concrete set.

City standards call for the concrete to be poured with a 4inch slump, and that no traffic drive on the concrete for a period of 10 days. M Squared made the decision to add 2% calcium to the concrete mix to speed up the concrete setting process. M Squared used the same mix design as is used for the street base:
- Bode Concrete Mix Design 604 - sidewalk, curb and gutter and parking strip.
- Bode Concrete Mix Design 604CC - Street base

The only difference between the 2 concrete designs is the added 2% calcium.

The concrete was poured with an 8inch slump in order to allow the crew enough time to satisfactorily finish the concrete to the required surface. M Squared acknowledge that this is out of spec, however the concrete still reached over 4000psi, when specs required only 3000psi. M Squared believes that this will be required in the future on other portions of Mission Street on account of Mission St. being MUNI¡¦s busiest route. SFMTA have asked that M Squared minimize lane closures where possible.

Please confirm that this 8inch slump is acceptable on Bode Mix 604CC (attached).

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-0241	AWSS - Proposed Fire Hydrant Re-Location on Mission and Fremont Street	Open	01/21/2014	01/31/2014		Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

As per AWSS Coordination Meeting on 01/17/2014, the location of this fire hydrant near the intersection of Fremont and Mission is potentially going to need to be moved to accommodate the new sidewalk expansion. The purpose of the RFI is for Michael Smith with SFWD to analyze, consider and direct the feasibility of relocating the fire hydrant further north.

If the hydrant is to be located somewhere other than is shown on the drawing please provide a detail for this work as additional fittings may need to be ordered.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

U-0242	AWSS - Hydrant Lateral Connection Conlict at Sta. 17+20	Open	01/21/2014	01/31/2014		Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan PHIL MILITELLO **Answered By:**

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Sheet MA-16 shows that the hydrant tee is to be rolled down 45-degrees in order to tie in to the lateral piping. However, when M Squared excavated this section, they discovered that the hydrant lateral piping is shallow and the main is approx. 2-feet deeper.

In order to install the piping, the hydrant tee will need to be rolled UP 45 degrees. In additon to this M Squared will need to order a customized 8-inch DIP flanged spool to join the tee to the flanged 45-degree elbow.

Please confirm it is acceptable to proceed with the customized flange or provide direction.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

U-182.5	Tie Back Requirements on 2nd Street	Closed	06/21/2013	07/01/2013	06/27/2013	Potentially	☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

See attached email from EOR.

M Squared has returned the 45deg bends to SFWD, and

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Response per Michael Smith (SFDPW)

"Our response followed standard design practices for

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed

in turn we have procured 22deg bends for this location. As a result we must now replace and tie back a minimum of 18ft of new 10" Ductile Iron Pipe. As the existing 10" pipes are 12ft lengths we will have to remove 24ft (2 lengths) of pipe to expose the closest possible bell.

Please confirm this is the intention.

restraining AWSS pipe at elbows."

Signed and Dated (see attached)

U-204 **AWSS - Compromised Lead Joint on Howard Street** **Closed** **06/15/2012** **06/25/2012** **06/18/2012** **Potentially** ☐

From: Webcor Construction LP Jackson Tukuafu **To:** Turner Construction Compan Gary Krutsch **Answered By:** Turner Construction Comp Jeff Thiel

Co-Author:

REQUEST:

Please reference the attached COMM0999 provided to TCCO on Friday, June 6, 2012.

As outlined in M Squared's letter dated 6/8/12, M Squared realigned the AWSS main on Howard Street and repacked the lead joints (time card attached for reference). During the Hydrostatic Test by SFWD, the lead joint leaked and failed to hold the test eventhough it was repacked.

As a result, it has become apparent that the AWSS joints have been compromised. Please provide direction on how M Squared is to proceed the with next course of action.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

Jeff Thiel 6/18/2012 Michael Smith's (SFDPW) response,

"The Contractor shall remove two (2) additional 12' sections of (E) cast iron pipe on the East end of the horizontal offset. F/I ductile iron pipe with restraints at all joints except for the MJxGH adaptor fitting. Pour new lead joint at Ctel."

Signed and Dated 6/18/12.

U-221 **AWSS - Pipe Joints in Utility Vaults** **Void** **01/31/2013** **02/10/2013** **02/06/2013** **Potentially** ☐

From: Webcor Construction LP Robert Kjome **To:** Turner Construction Compan Gary Krutsch **Answered By:** Webcor Construction LP Jackson Tukuafu

Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Per recent field direction provided by the City inspector to M Squared Construction, where possible no joints are permitted inside utility vaults (i.e PGE, ATT)

This will require an additional restraint joint at each vault location.

Please confirm this is the intent.

SUGGESTION:

ANSWER: **Accept Suggestion:** ☐

See U-0221

Webcor/Obayashi Joint Venture

PROJECT MANAGEMENT - REQUEST AND ANSWERS LOG

30100 - Transbay Transit Center Project

Number	Subject	Status	Date Created	Date Required	Date Answered	Cost Impact	Proceed
U-222	**AWSS - Flanged Spools for Hydrants**	**Void**	**01/31/2013**	**02/10/2013**	**02/06/2013**	**Potentially**	☐

From: Webcor Construction LP Robert Kjome
To: Turner Construction Compan Gary Krutsch
Answered By: Webcor Construction LP Jackson Tukuafu
Co-Author: M Squared Construction, Inc. Aidan Foley

REQUEST:

Reference Drawings: MA-14 & MA-15

Hydrant at Sta 6+30
Contract drawings show the 45deg bend being connected directly to the rolled down tee. However the hydrant lateral is much lower than the main and it will not be possible to connect them directly together.

Hydrant at Sta 9+00
Due to the changes per RFI U-190 M Squared are to install the new fire hydrant in the same location as the existing, in the breezeway. As a result the new hydrant lateral will be higher than the newly installed main (the grade of the main being dictated by various utility conflicts).

Please confirm M squared's suggested mediation is how M squared is to proceed.

SUGGESTION:

Hydrant at Sta 6+30
Suggestion - custom fabricate a HPW flanged x flanged spool for to connect to the tee and the 45deg bend.

Hydrant at Sta 9+00
Suggestion - In order to connect the tee to the 90deg bend a HPW flanged x flanged spool, custom fabricated will be necessary.

ANSWER: **Accept Suggestion:** ☐

see U-0222

END OF REPORT

Report Parameters

Project:	30100	Status Class:	
Sent To:		Run Date:	01/28/2014
Restrict Value of:	C	Run Time:	02:19 PM
From Date:		Operator:	MKOJIMA
To Date:		Report Code:	PM3012
Status:			

Transbay Transit Center – San Francisco, CA

<u>Noise and Vibration Mitigation Management Plan</u>
Webcor/Obayashi
September 07, 2012

GENERAL:

The Webcor/Obayashi (W/O or CM/GC) Noise and Vibration Mitigation Management policy that will be implemented on the Transbay Transportation Center Project will be an overall project policy, with each Trade Subcontractor contributing their specific plan as they come on board to the project. The primary function of this plan is to comply with Specification Section 00 08 13, 00 08 13/APB, the San Francisco Noise Control Ordinance, regulations and requirements and section 01 35 65, Specific Project mitigation measures and monitoring requirements as applicable to the various phases of work.

When required by the specifications, W/O will ensure its Trade Subcontractors comply with this plan as well as the San Francisco Noise Control Ordinance.

To expedite the project or minimize impacts, W/O will ensure that its Trade Subcontractors apply for written waivers of some of the noise requirements by application to the TJPA in accordance with Section 00 08 13 Specific Project Requirements when required by the specifications or contract. Written waivers shall be uploaded to Constructware by CM/GC. It is anticipated that some Work may require multiple shifts or for other reasons need to be performed outside of typical weekday daytime construction hours. Trade Subcontractors shall minimize construction activities during evening, nighttime, weekend, and holiday periods and shall obtain specific permits before performing construction in noise sensitive areas during these periods.

Night noise permit~~s~~ requests shall be submitted to the TJPA at least 7 days in advance of work. Noise permit request shall include:

1. Name of person in charge of work and phone number
2. Hours to be worked
3. Narrative of scope of work including necessity of doing work at night, maps, and truck routes
4. List of noise/vibration/light making equipment including make and model
5. Mitigation and monitoring methods being used

W/O will ensure that its Trade Subcontractors provide noise inspections and testing of equipment to ensure that all equipment onsite is in good condition and effectively muffled per manufacturer's recommendation. If inspection or testing documents are requested by the TJPA, or any of its representatives, W/O will require its Trade Subcontractors to provide requested documentation in a timely manner. Trade Subcontractors shall provide inspection and testing documents to CM/GC prior to start of work and as the equipment is replaced. CM/GC shall upload documents to a file location within Constructware.

W/O will ensure that its Trade Subcontractors minimize use of vehicle backup alarms and demonstrate how backup alarms will be minimized by using mitigation measures such as designing the construction site with a circular flow pattern that minimizes backing up of trucks and other heavy equipment. Trade Subcontractors shall submit quarterly reports of measures to reduce back up alarms. W/O shall upload these reports to a specific location within Constructware.

W/O will ensure that all its Trade Subcontractors' equipment onsite is equipped with broadband back-up alarms that will automatically adjust based on the ambient noise during nighttime hours (between 8 p.m. and 7 a.m.) when ambient noise is low. If safety considerations and applicable regulations will not allow use of broadband back-up alarms, Contractor shall request an exemption in writing to the TJPA

Representive including the applicable safety regulations (Cal/OSHA, OSHA). Trade Subcontractors shall comply with the TJPA's request for broadband back-up alarms for all work between 8 p.m. and 7 a.m. If requested by the TJPA or its representative, Trade Subcontractors shall provide W/O with equipment specifications showing broadband back-up alarms for submission via Constructware.

Through W/O's requirement of the submittals outlined in this noise and vibration plan, W/O will verify Trade Subcontractors' construction operations are performed in such a manner to minimize noise.

W/O will verify that its Trade Subcontractors perform noise monitoring to demonstrate compliance with noise limits and endeavor to minimize construction activities during off hours except for those required and deemed acceptable per the Contract Documents. Trade Subcontractors shall submit monthly monitoring reports to W/O for submission via Constructware.

W/O will verify Trade Subcontractors haul routes to ensure that they minimize noise intrusion into residential areas, and control noise during nighttime hours.

W/O will require all Trade Subcontractors to use procedures and equipment, when it would be effective, that produce lower noise levels than normal when required by the specifications or contract. W/O will require the Trade Subcontractor to submit manufacturer special noise control kit information. If none is available, then the Trade Subcontractor needs to submit a statement of this. Upon receipt and review of the information, W/O and the Trade Subcontractor will identify the events when the noise control measures should be used based on the specifications.

W/O will require all Trade Subcontractors plans to include use of temporary barriers near noisy activities as required by the specifications or contract. Such barriers shall be located close enough to the noise source to achieve noise attenuation. As necessary and when it is shown it would be effective, Trade Subcontractors shall construct shed-like structures or complete buildings to contain the noise from nighttime activities.

W/O shall require haul route map, plan and storage location to be part of Trade Subcontractor's plan and included within its submittal.

VIBRATION CONTROL

Vibration limits are based upon the Federal Transit Administration's Planning and Environment Transit Noise and Vibration Impact Assessment guidelines. W/O will require all Trade Subcontractors' to limit or prohibit use of construction techniques that create high vibration levels when it affects adjacent properties.

If construction techniques that create high vibration levels are used, W/O will require all Trade Subcontractors' to comply with the following additional restrictions:

1. Provide advance notice to TJPA of any vibration intensive activities. Perform vibration intensive activities only during daytime hours between 7 a.m. and 8 p.m. unless otherwise allowed by special permit or variance, as required by the specifications or contract. Perform vibration monitoring during vibration intensive activities during daytime hours between 7 a.m. and 8 p.m. unless otherwise allowed by special permit or variance, as required by the specifications or contract. Recorded data should be part of the Trade Subcontractor Daily report. A summary shall be submitted monthly and uploaded to Constructware.

2. Investigate alternative construction methods and practices to reduce the impacts if present and implement alternative methods and practices as reasonable.
3. Provide a plan to measure vibration levels including but not limited to measurement locations, times and metrics. Plan shall also include contingency plan if operations exceed the limits. This plan shall be uploaded into Constructware by W/O.
4. Limit or prohibit use of construction techniques that create high vibration levels.

Trade Subcontractors shall be responsible for providing technical information, as required by the specifications, in their plan. Trade Subcontractor's plan shall be submitted via Constructware for Record Only.

Transbay Transit Center – San Francisco, CA

<u>Air Quality Plan</u>
Webcor/Obayashi
January 16, 2012

GENERAL PLAN:

The Webcor/Obayashi (W/O) Air Quality Plan that will be implemented on the Transbay Transit Center Project will be an overall policy with each subcontractor contributing their specific plan as they come on board to the project. The primary function of this plan is to comply with the Bay Area Air Quality Management District regulations and requirements.

W/O will require its Trade Subcontractors to establish a plan that complies with all requirements set for in specification sections 00 08 13, and 01 35 65 prior to starting Work onsite. W/O shall check and verify trade subcontractor's compliance with air quality requirements on a daily basis. Any non-compliant trade subcontractors will receive both verbal and written notice through Safe Site One (W/O internal program). Additional, W/O will require trade subcontractors to demonstrate they are actively monitoring air quality by providing checklists or documentation on each Trade Subcontractors daily report. W/O shall verify its Trade Subcontractors Air Quality plan includes the following but not necessary limited to:

1. Specific measures to minimize impacts to sensitive receptors associated with exposure to respirable nuisance dust (PM10) and achieve a goal of No Visible Emissions.
2. W/O shall verify Trade Subcontractors comply with City Dust Control Order (DPW Order No. 171,378. Water active construction areas at least twice daily to control dust using non-potable water in accordance with San Francisco Ordinance 175-91
3. Identify specific measures to minimize dust generation; to reduce health risks to workers and the public.
4. Mist the immediate excavation area with a water spray to prevent airborne dust particles. Perform continuous water spraying during dust-generating activities. Mist or spray in such a way as to prevent puddling or generation of runoff, which could potentially reach storm drains or catch basins.
5. Minimize the amount of excavated material or demolished debris stored at the Site. Remove excavated material and demolished debris, with the exception of hazardous materials or suspected hazardous materials, from the Site no later than the end of each workday. If hazardous materials or suspected hazardous materials are stored on site, store such materials in accordance with all applicable California Environmental Protection Agency regulations, including providing storage in proper containers and protection from exposure to the elements. Remove such materials from the Site as soon as possible for disposal or recycling in accordance with applicable laws and regulations.
6. Wet all exposed soil surfaces at least 3 times daily during dry weather or more frequently if dust is blowing or if required by the TJPA. Immediately wet sweep serpentine residuals from the street.
7. Keep the Site and adjacent areas clean and perform wet sweeping at the end of each shift. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
8. Load haul trucks carrying excavated material so that the material does not extend above the walls or back of the truck bed. Wet before covering and tightly cover the surface of each load before the haul truck leaves the loading area. Cover trucks hauling soil, sand, and other loose materials or require trucks to maintain at least 2 feet of freeboard
9. Clean up spillage on City streets, whether directly or indirectly caused by Contractor's operations.

10. Minimize use of on-site diesel construction equipment, particularly unnecessary idling. Shut off construction equipment to reduce idling when not in direct use. Where feasible, replace diesel equipment with electrically powered machinery.
11. Retain receipts of ultra-low sulphur fuel (ULSF) purchase and equipment tuning and repair and make these available to the TJPA Representative or to the Federal Transit Administration (FTA) designee upon request.
12. Locate diesel engines, motors, or equipment as far away as possible from existing residential areas.
13. Properly tune and maintain diesel power equipment. To manufacturer's specification and frequency.
14. Suspend grading operations during first and second stage smog alerts, and during high winds (i.e., winds greater than 25 miles per hour).
15. Upon completion of the construction phase, buildings with visible signs of dirt and debris from the construction site shall be power-washed and/or painted (provided that permission is obtained from the property owner to access and wash the property with no fee charged by the (owner). Trade Contractor shall request CMGC to contact Singer and Associates to notify property owners for access. If permission from property owners for access is not granted, Trade Contractor is not responsible for power-washing or painting.
16. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
17. If applicable, replant vegetation in disturbed areas as quickly as possible.

W/O will verify Trade Subcontractors comply with the requirements of the Bay Area Air Quality Management District (BAAQMD) Regulation 6 (for particulate matter and visible emissions), Regulation 7 "Odorous Substances," Regulation 11 "Hazardous Pollutants," and the California Health and Safety Code Division 26 "Air Resource", Chapter 3 "Emission Limitations," Section 41700 "Prohibited Conduct," and related regulations. Trade Subcontractors shall notify the BAAQMD 10 working days prior to commencing demolition or hazardous materials abatement work.

1. Such notification shall include the names and addresses of operations and persons responsible; description and location of the structure to be demolished or altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the disposal site.
2. The BAAQMD randomly inspects removal operations and will respond to any complaints received. Contractor shall cooperate with and facilitate all BAAQMD authorized inspections.\
3. Notifications shall be documented and provided to CM/GC for submission to the TJPA via ConstructWare.

Trade Subcontractors shall be responsible for providing technical information, as required by the specifications, in their plan. All trade subcontractors plans shall be submitted for Record Only via ConstructWare.

Transbay Transit Center – San Francisco, CA

<u>Waste Management and Construction Debris Plan Revision 6</u>

Webcor/Obayashi
November 7, 2013

Exhibit P

GENERAL PLAN:

Webcor/Obayashi Joint Venture (Webcor/Obayashi) understands that the building contractor plays a critical role in the management of jobsite produced construction waste. Webcor /Obayashi has adopted a waste reduction and recycling policy that will be implemented on the Transbay Transportation Center Project. This policy will be an overall policy with each subcontractor contributing their specific plan as they come on board to the project.

The primary goal of the plan is to divert as much construction generated debris & unused material from landfills as possible. At a minimum, Webcor/Obayashi and its trade subcontractors will divert 75% of the waste generated on the construction project from landfills. Trade subcontractors Construction Waste Management Plan shall be prepared and submitted in compliance with the Owner's LEED project requirements and the requirements of the City and County of San Francisco.

The Trade Subcontractors are required to comply with Specification Sections 00 08 15, 01 74
00, and 01 81 13 as well as any or all of the procedures listed below. If a conflict in percentages exists between this section and Section 01 81 13, General LEED Building Design and Construction Requirements, the most stringent section shall govern.

- Use of approved debris haulers with documented recycling levels.
- Source separated debris boxes will be provided onsite for mixed debris and recyclable items such as lumber and wood related products, dirt, concrete and asphalt, cardboard & metals.
- Trade Subcontractors are required to handle and dispose of any generated hazardous waste.
- Requesting Trade Subcontractors and vendors to utilize reusable packaging when possible.
- Trade Subcontractor shall provide a Construction Waste Management Plan.

All Trade Subcontractors shall develop their own Waste Management and Construction Debris Plan that complies with the Contract Documents and this plan. Trade Subcontractors shall submit this plan in accordance with the specifications and it shall become part of Webcor/Obayashi's overall project plan. All technical requirements defined in the contract documents shall be fulfilled by Trade Subcontractors and submitted to the Construction Management Oversight (CMO) For Record Only through ConstructWare

Webcor/Obayashi will ensure the Trade Subcontractors are effectively implementing the procedures and are in compliance with Specifications.
Webcor/Obayashi will verify that after Award of Contract and before commencement of the Work at the site, the Trade Subcontractor conducts a Reuse/Recycle Assessment as part of their Solid Waste Management Plan (SWMP): Trade Subcontractor's assessment shall

estimate the types and quantities of materials for the Project that are anticipated to be feasible for source separation for recycling or reuse, either onsite or offsite, and note the procedures intended for a recycling, reuse, and salvage program. Documentation of the trade subcontractor's plan shall consist of the following:

- Trade subcontractor and vendor waste management strategies.
- Trade subcontractor required to provide a monthly summary of the total waste material with backup documentation (weight tickets) if processed offsite.
- The amount recycled (in tons), material types, recycling procedures, and processing facility locations to which materials were diverted if processed offsite.

Trade Subcontractor's Construction Waste Management Plan shall also include estimated wastes, disposal, and handling with the following:

A. List of materials that comprise source separated materials include, but are not limited to:

- Concrete, Wood, Mud, Mixed Aggregates, Yard waste, Metals, and Cardboard.
- Yard waste is not included in our overall diversion rate calculation on the template or corresponding spreadsheet per the requirements from the LEED BD&C v3.0 Reference Guide.

B. List of materials that comprise Miscellaneous Construction Debris include, but are not limited to:

- Wood, Scrap Metal, Drywall, Plastics, Film Plastics, Wire, Cable, Glass.
- The total quantity estimated, inception to completion Disposal.
- Total Project Generation, Diversion + Disposal.
- Project Diversion Rate.

Webcor/Obayashi will verify that Construction and Demolition Waste; Non- hazardous solid resources resulting from Trade Subcontractor's construction, remodeling, repair, and demolition operations for the Project are properly transferred to a C&D Recycling Facility. The C&D Recycling Facility shall be a facility that receives only C&D (construction and demolition) material. Trade Subcontractors shall provide Webcor/Obayashi a summary sheet, including all receipts for transport materials each month with the progress billing if any materials are processed offsite.

Webcor/Obayashi will verify that of the inevitable waste generated, Trade Subcontractor's reuse, salvage, or recycle as many of the waste materials as economically feasible.

Webcor/Obayashi will participate/attend a meeting with Trade Subcontractor, the TJPA Representative and representatives of the City's Solid Waste Management and recycling programs prior to commencement of work. Webcor/Obayashi will

ensure all Trade Subcontractors are made aware of the LEED requirements for C&D diversion before being allowed to work on the site.

Webcor/Obayashi will verify that Trade Subcontractors submit a Monthly Disposal and Recycling Summary Report; quantifying the construction and demolition waste generated and recycled, reused or disposed of at Class 3 Landfill. Contractor shall also send a copy of this report to the TJPA Representative and the SWMP to the City Government Recycling Coordinator. The Comprehensive Disposal and Recycling Summary Report shall be submitted quantifying the construction and demolition waste generated and recycled, reused or disposed of at Class 3 Landfill, on a monthly basis. This report is a condition of progress payment and failure to submit this information shall render the Applications for Payment incomplete. The Trade Subcontractors/trades are also responsible for contracting with a regional facility to haul any hazardous materials from the site. The Trade Subcontractor shall calculate the C&D diversion rate for both LEED requirements (excluding yard waste) and the requirements set by the City (including yard waste) for all materials processed offsite. The W/O LEED representative will screen every C&D Submittal and review Trade Subcontractor and lower-tier subcontractors C&D Plans for clarity, completeness, and compliance with City/LEED requirements.

Webcor/Obayashi will verify that Trade Subcontractors develop and implement procedures for source separation to the greatest extent feasible.

Webcor/Obayashi will verify the Trade Subcontractors plans develop and implement procedures for transporting commingled (mixed) construction and demolition waste that cannot be feasibly source-separated if the intent is to process it offsite instead of using debris boxes provided onsite.

Webcor/Obayashi will verify the Trade Subcontractors plans develop and implement procedures for Salvage and Reuse.

Webcor/Obayashi will verify the Trade Subcontractors plans develop and implement practices for this project that will reduce waste at the source.

Webcor/Obayashi will verify the Trade Subcontractors plans develop and implement procedures for materials that are recycled and/or reused onsite

Webcor/Obayashi will verify that Trade Subcontractors participate in reuse programs by reviewing each Trade Subcontractors Monthly Disposal report for any material processed offsite. For such reuse programs, Trade Subcontractor shall refer to the City's construction and demolition recycling program.

Webcor/Obayashi shall review the environmental goals of this Project with all Trade Subcontractors during the preconstruction meeting. Webcor/Obayashi shall make a proactive effort to increase awareness of these goals among the job site workers. Webcor/Obayashi will make a proactive effort to increase awareness of these goals among the site workers by requiring that each Subcontractor take Click Safety training prior to stepping on the jobsite. As part of this Click Safety training, there is a module dedicated to teaching and reviewing the

LEED requirements of the project during construction activity.

Webcor/Obayashi will verify that Trade Subcontractors are using registered transporters and registered facilities. Only registered transporters can remove mixed construction and demolition debris from the construction site, and they must take this material to a registered facility. NOTE: A Registered facility: is any facility that accepts mixed construction and demolition debris for processing and recycling must be registered with the City and County of San Francisco and must demonstrate an overall minimum recycling rate of 65% for mixed construction and demolition debris. A registered facility must have applied for and received a registration from the San Francisco Department of the Environment. Webcor/Obayashi will ensure that Waste Management Companies that service San Francisco and retained by the Trade Subcontractors are registered transporters and meet the City/LEED requirements. Trade Subcontractors shall refer to SFEnvironment.org for the City's most current list of registered transporters.

Webcor/Obayashi will verify that Trade Subcontractors are implementing the following:
1. Eliminate the procurement of unneeded supplies.
2. Reduce waste by printing and copying double-sided.
3. Submit all submittals, reports, and forms in electronic format (PDF) unless otherwise noted.
4. Fully participate in available and required recycling and composting programs.
5. Purchase products made with recycled content such as paper and recycled aggregate.

Webcor/Obayashi will verify that Trade Subcontractors shall submit:
1. Construction and Demolition Debris Management Plan.
2. Construction and Demolition Debris Recovery Monthly Summary Report and supporting documentation for any materials processed offsite.
3. Construction and Demolition Debris Recovery Final Report for all materials processed offsite.

Trade Subcontractor's plan shall comply with specification section 02 41 00. All Trade Subcontractors will remove and dispose of all waste materials from the site for off-site disposal in compliance with all applicable laws, ordinances, rules, and regulations. Webcor/Obayashi and all Trade Subcontractors will work with the TJPA representative so that the representative may characterize the waste materials as required by law to the extent required by Webcor/Obayashi's selected disposal facilities.

Trade Subcontractor's plan shall comply with specification section 01 15 00. Trade Subcontractor's shall perform work in a manner to minimize generation of dust, dirt, rubbish, and other debris, to prevent dust and debris from interfering with the progress of the work, and to keep dust and debris from accumulating at the work site or adjacent areas. Trade Subcontractor's shall remove debris and rubbish from the site on a daily basis.

Trade Subcontractor's plan shall comply with specification section 01 13 50, by preventing the mixing of hazardous and non-hazardous materials.

Trade Subcontractor's shall be required to provide technical information, as required by the specifications including compliance with the City and County of San Francisco Ordinance 27-

06, in their plan which will be submitted For Record Only to the CMO.

Exhibit Q

APPRENTICESHIP PROGRAM

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

Trade Subcontractor Name	

CRAFTS EXPECTED TO BE EMPLOYED BY TRADE SUBCONTRACTOR

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

CRAFTS EXPECTED TO EMPLOYED BY SUBCONTRACTORS OF THE TRADE SUBCONTRACTOR

SUBCONTRACTOR #1

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #2

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

SUBCONTRACTOR #3

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #4

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #5

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #6

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

SUBCONTRACTOR #7

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #8

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #9

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #10

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

SUBCONTRACTOR #11

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #12

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #13

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #14

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

SUBCONTRACTOR #15

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #16

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #17

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #18

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

WEBCOR/OBAYASHI JOINT VENTURE - TRADE SUBCONTRACTOR'S APPRENTICESHIP REQUIREMENTS

SUBCONTRACTOR #19

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

SUBCONTRACTOR #20

Subcontractor Name	

CRAFT (i.e. Carpenters)	**List Minimum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)	**List Maximum Apprentice Ratio** (As required by registered Apprenticeship program for Craft)

MONTHLY

TRADE SUBCONTRACTOR AFFIDAVIT

TRADE PACKAGE NO.:_____

I, _____ declare under penalty of perjury that:

1. **I am the _____ of _____ and I am responsible**
(Owner, Officer, Partner) (Company)
for the payment of persons employed by_____ who performed work on
(Company)
the_____, in the classification(s) of_____
(Project)
_____.

2. **_____ The apprenticeship committee(s) either denied or failed to respond to our request for the dispatch of apprentices, and therefore all workers were classified as journeymen for the following crafts: _____**
_____

Or

During the previous monthly period _____
(month)

The required number of apprentices by craft listed and initialed below have been employed according to the minimum and/or maximum requirements as required by the regulating documents for the previous period. (Attach backup demonstrating compliance for period referenced above)

CRAFT	IN COMPLIANCE (Y/N)	BACKUP ATTACHED (Y/N)

Or

Provide a plan to satisfy this requirement by the end of the project without exceeding the maximum number of apprentices on a daily basis.

This document must be submitted and approved, with backup if required, prior to submittal and subsequent approval of the next billing period's progress billing.

Executed this _____ day of _____ 201___, in _____, CA.

_____
(Signature)

FINAL

TRADE SUBCONTRACTOR AFFIDAVIT

TRADE PACKAGE NO.: _____

I, _____ declare under penalty of perjury that:

1. **I am the _____ of _____ and I am responsible**
(Owner, Officer, Partner) (Company)
for the payment of persons employed by_____ who performed work on
(Company)
the_____, in the classification(s) of_____
(Project)
_____.

2. **During the payroll periods commencing on _____ and ending _____, all persons employed by my company on this project have been paid the specified general prevailing rate of per diem wages for the specified craft or classification pursuant to Labor Code §§ 1771 and 1813.[1]**

3. **_____ The apprenticeship committee(s) either denied or failed to respond to our request for the dispatch of apprentices, and therefore all workers were classified as journeymen.**

Or

The required number of apprentices by craft listed and initialed below have been employed according to the minimum and/or maximum requirements as required by the regulating documents.

CRAFT	IN COMPLIANCE (Y/N)

Executed this _____ day of _____ 201___, in _____, CA.

This document must be submitted and approved prior to final retention payment.

_____

(Signature)

[1] Except for public works projects of one thousand dollars ($1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.

This section is applicable only to work performed under contract, and is not applicable to work carried out by a public agency with its own forces. This section is applicable to contracts let for maintenance work.

Exhibit R

Survey Information

CHAUDHARY & ASSOCIATES, INC.

ENGINEERS
SURVEYORS
INSPECTORS

851 NAPA VALLEY CORPORATE WAY ■ SUITE G ■ NAPA, CALIFORNIA 94558-7551
PHONE: 707.255.2729 ■ FAX: 707.255.5021 ■ WWW.CHAUDHARY.COM

December 27, 2011
#11-03-014

Mr. Rick Buellesbach
Senior Project Manager - Transbay Transit Center
Webcor/Obayashi Joint Venture
175 Beale Street
San Francisco, CA 94105

Re: Transbay Transit Center Quality Control Surveys
Subject: December 2011 Control Verification Survey Results

Dear Mr. Buellesbach:

The field work for subject surveys was conducted by Chaudhary & Associates December 5 - 8, 2011. The surveys included verification of Chaudhary & Associates control (as shown on the Survey Control Plan dated 11-10-2011), with the exception of control point 217 which was destroyed sometime between the November 2011 and December 2011 control verification surveys.

Horizontal control values for point numbers 54, 208, 209, 213, 101, 105, 215, and 227 were constrained in this control network horizontal adjustment. The elevation values remain unchanged from the November 2011 surveys. The table below shows both the 11-10-2011 and the 12-21-2011 values for the remaining control points. Because data values can be impacted by environmental factors (temperature and humidity), seismic activity, and the various combinations of back sight and foresight data available on any given day, only the values which differ by 0.01' or more are adjusted and shown on the following table (and updated on the 12/2011 control map to be sent to you tomorrow). Field note copies and Star Net Reports have been mailed to you.

Horizontal Values

Point #	November 10, 2011		December 2011		Description
	Northing	Easting	Northing	Easting	
79	2115835.42	6013588.51	2115835.43	6013588.49	Fnd Mag+Shnr on TC
205	2115091.66	6013145.43	2115091.66	6013145.42	Mag Nail
221	2115642.30	6013753.17	2115642.32	6013753.18	Fnd Scribed-X KCA #4
223	2115654.49	6014255.95	2115654.48	6014255.95	Fnd Scribed-x KCA 9605
224	2115924.30	6013990.82	2115924.30	6013990.81	Cut-X
225	2115838.99	6014083.47	2115838.98	6014083.47	Fnd Scribed-X KCA 9761
229	2115259.63	6013325.88	2115259.62	6013325.87	Mag+Wshr

Please feel free to call me at (707) 255-2729 any questions or comments.

LICENSED LAND SURVEYOR
HELMUT R. KORSTICK
PLS 7739
STATE OF CALIFORNIA

Sincerely,
CHAUDHARY & ASSOCIATES, INC.
A California Corporation

Helmut R. Korstick

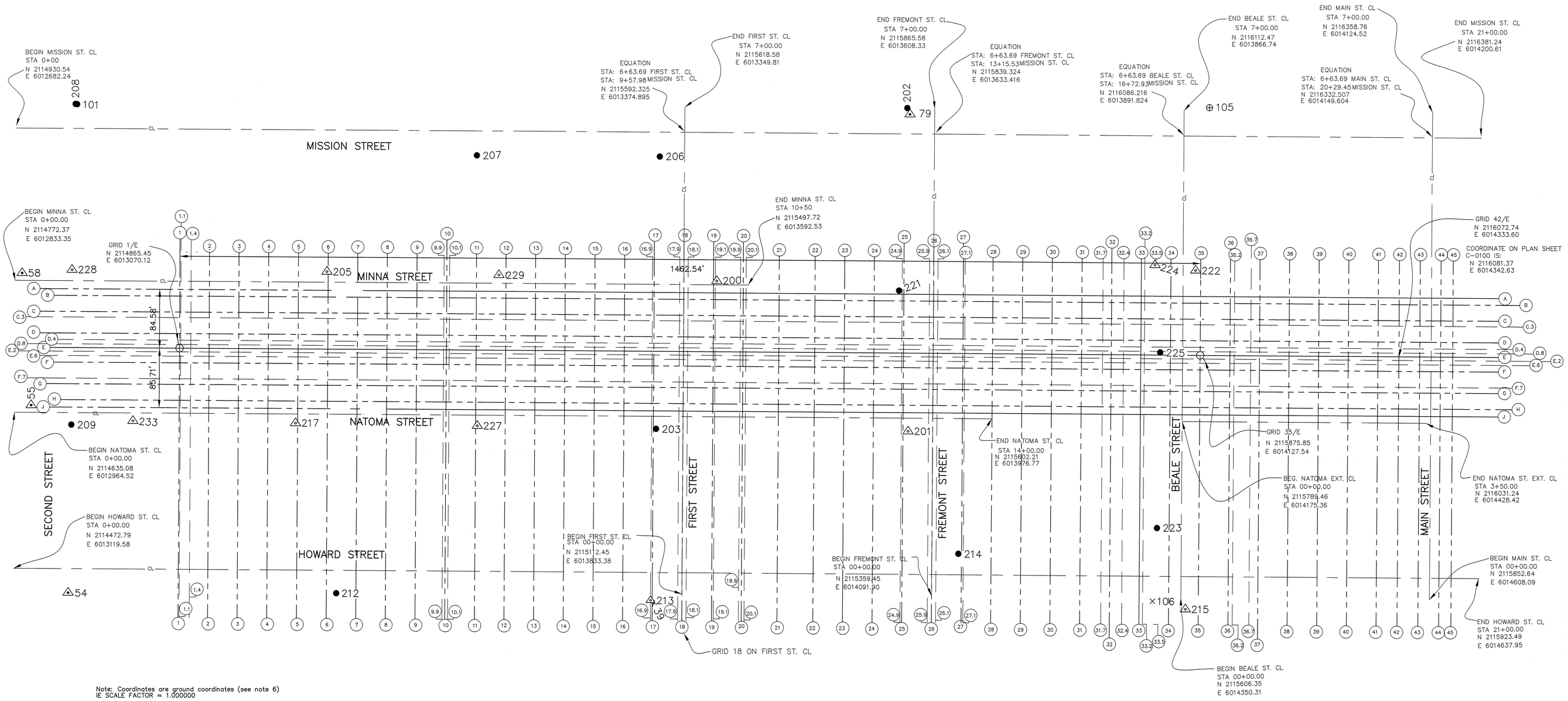
Helmut R. Korstick, PLS 7739
Project Surveyor

SURVEY PROCEDURES

1) CHAUDHARY AND ASSOCIATES FIELD CREW LOCATED AND TIED OUT CONTROL BETWEEN APRIL 22–MAY 13, 2011. DIGITAL LEVELS WERE UTILIZED FOR THE VERTICAL COMPONENT, AND A TRIMBLE S6 WAS USED FOR THE HORIZONTAL COMPONENT. CONTROL WAS ADJUSTED UTILIZING STAR–NET SOFTWARE. OF THE 4 MAIN CONTROL POINTS SHOWN ON SHEET GT–0100 OF PLANS (BEING PTS. 54, 101, 105, AND 106), PTS. 54, 101, AND 105 REMAIN AS OF THE DATES OF THIS SURVEY. CONSEQUENTLY, PTS. 54, 101, AND 105 WERE HELD IN THE STAR NET ADJUSTMENT. A TOPCON DL–102 DIGITAL LEVEL WAS UTILIZED FOR THE VERTICAL COMPONENT. NOTE: CONTROL POINTS 220–226 WERE FIELD SURVEYED BETWEEN SEPTEMBER 9–14, 2011.

2) CENTERLINES AS SHOWN ON PLAN SHEET C–0100 TO BE FIELD VERIFIED.

3) GRID LINES TO BE SET BY PLACING A CUT X OR OTHER APPROPRIATE SURVEY MARKER ON THE EXTENSION OF SAID GRID LINES WHERE PRACTICAL OR PER WEBCOR AUTHORIZATION.



Note: Coordinates are ground coordinates (see note 6)
IE SCALE FACTOR = 1.000000

POINT TABLE

Pt.#	Northing	Easting	Elev.	DESC.	SOURCE
54*	2114501.77	6013199.83	25.36	FND MAG+WASHER ON TC	C&A FROM PARSONS\CALTRAIN PROJECT
55	2114658.94	6012974.42	24.11	FND MAG+WASHER ON TC	C&A FROM PARSONS\CALTRAIN PROJECT
58	2114786.86	6012833.18	23.16	FND MAG+WASHER ON TC	C&A FROM PARSONS\CALTRAIN PROJECT
79	2115835.43	6013588.49	14.14	FND MAG+SHNR ON TC	C&A FROM PARSONS\CALTRAIN PROJECT
101	2115016.20	6012721.43	22.05	FND SCRIBED X KCA 101	MARTIN M. RON (PER SHEET GT–0100)
105	2116140.97	6013889.65	12.74	FND RIVET+BT MMR CTL	MARTIN M. RON (PER SHEET GT–0100)
106***	2115574.58	6014324.45	13.31	DPW BD+RIVET	DPW
200	2115470.67	6013556.22	18.22	MAG NAIL & WASHER	SET ON 4–21–2011 BY C&A
201	2115505.98	6013803.24	15.11	MAG NAIL	SET ON 4–21–2011 BY C&A
202	2115839.15	6013579.47	14.56	FND RIVET+BT MMR CTL	MARTIN M. RON
203	2115257.23	6013641.61	18.55	FND LEAD+TACK	UNKNOWN
205	2115091.66	6013145.42	20.64	MAG NAIL	SET ON 4–21–2011 BY C&A
206	2115542.47	6013373.50	16.37	FND NAIL+BT RCE 14786	UNKNOWN
207	2115361.22	6013183.82	18.43	FND NAIL+BT RCE 14786	UNKNOWN
208	2115014.84	6012719.45	22.04	FND CUT–X WITH RIVET	UNKNOWN
209	2114678.65	6013035.17	24.66	FND RIVET+BT MMR CTL	MARTIN M. RON
212	2114768.20	6013476.35	22.76	FND 1" BRASS PLUG	CCSF
213	2115074.65	6013807.38	20.23	MAG NAIL & SHNR	SET ON 4–26–2011 BY C&A
214	2115429.58	6014077.34	15.37	FND 1" BRASS PLUG	CCSF
215	2115599.06	6014366.41	13.92	MAG NAIL & WASHER	SET ON 4–26–2011 BY C&A
221	2115642.32	6013753.18	15.49	SCRIBED–X KCA 4	KCA ENGINEERS
222	2115959.09	6014037.98	13.16	CUT–X	SET ON 9–12–2011 BY C&A
223	2115654.48	6014255.95	13.46	SCRIBED–X KCA 9605	KCA ENGINEERS
224	2115924.30	6013990.81	12.57	CUT–X	SET ON 9–12–2011 BY C&A
225	2115838.98	6014083.47	12.66	SCRIBED–X KCA 9761	KCA ENGINEERS
227	2115081.93	6013454.34	20.43	MAG NAIL & WASHER	SET ON 10–3–2011 BY C&A
228	2114839.80	6012881.28	23.01	MAG NAIL & WASHER	SET ON 10–3–2011 BY C&A
229	2115259.62	6013325.87	18.80	MAG NAIL & WASHER	SET ON 10–3–2011 BY C&A
233	2114743.93	6013094.94	23.58	CUT–X IN GUTTER	SET ON 10–31–2011 BY C&A
39***	2115074.59	6013813.50	20.34	SCRIBED X ON CONCRETE	C&A FROM PARSONS\CALTRAIN PROJECT

* SAME AS CONTROL POINT 54 ON PLAN SHEET GT–0100
** HELD AS POINT 101 ON PLAN SHEET GT–0100 (DESCRIBED AS MMR BD+RIVET ON SHEET GT–0100)
*** CONTROL POINT SEARCHED FOR AND NOT FOUND ON THIS SURVEY

CONTROL VALUES REVISED FROM PREVIOUS REVISION(11–10–2011) (VALUES NOW TO THE NEAREST 0.01' INSTEAD OF 0.001')

SURVEYOR'S STATEMENT

I CERTIFY THAT THIS MAP CORRECTLY REPRESENTS A FIELD SURVEY MADE BY ME AND AN ASSISTANT IN DECEMBER 2011. THE CONTROL VALUES PASSED THE CHI–SQUARE TEST AT 5.00% LEVEL AS PER THE STAR NET REPORTS.

Helmut R Korstick L.S. 7739
License Expires: 12–31–2011

LEGEND

× SURVEY POINTS (SEARCHED FOR AND NOT FOUND ON THIS SURVEY)

△ CHAUDHARY AND ASSOCIATES CONTROL SET AND TIED OUT ON THIS SURVEY. COORDINATES WERE ADJUSTED USING STAR NET SOFTWARE. DIGITAL LEVELS WERE PERFORMED FOR THE VERTICAL COMPONENT.

⊗ CONTROL POINT AS SHOWN ON SHEET GT–0100 OF PLANS (50% SUBMITTAL).

△ CHAUDHARY AND ASSOCIATES CONTROL FOUND AND TIED OUT ON THIS SURVEY. COORDINATES WERE ADJUSTED USING STAR NET SOFTWARE. DIGITAL LEVELS WERE PERFORMED FOR THE VERTICAL COMPONENT.

CL CENTERLINE AS SHOWN ON SHEET C–0100 OF PLANS (50% SUBMITTAL).

BT BRASS TAG

● CONTROL POINTS SET BY OTHERS FOUND AND TIED OUT ON THIS SURVEY.

MAIN GRID LINE
SUB GRID LINE

C&A CHAUDHARY AND ASSOCIATES
CCSF CITY AND COUNTY OF SAN FRANCISCO
MMR MARTIN M. RON
TC TOP OF CURB
SHNR SHINER
FND FOUND
RCE REGISTERED CIVIL ENGINEER
REB REBAR
DPW DEPARTMENT OF PUBLIC WORKS FOR THE CITY AND COUNTY OF SAN FRANCISCO

BASED UPON 50% CONSTRUCTION DOCUMENTS

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

NOTES

1) SEE ARCHITECTURAL PLANS FOR GRID LAYOUT AND DIMENSIONS.
2) NAD 83 REFERS TO THE CALIFORNIA STATE PLANE COORDINATE SYSTEM. HORIZONTAL CONTROL FOR THIS SURVEY IS BASED UPON NAD83, CA ZONE 3, EPOCH 1991.35, GEOID 03.
3) UNITS ARE FEET AND REPRESENT GROUND (NOT GRID) DISTANCES.
4) THE VERTICAL DATUM IS BASED UPON NAVD 88.
5) CONTROL VALUES BASED UPON FIELD TIES SURVEYED BETWEEN APRIL 22 AND MAY 13, 2011 BY C&A FIELD CREW. CONTROL VALUES FOR POINTS 220–226 WERE BASED UPON FIELD TIES BETWEEN SEP. 9–14, 2011.
6) COORDINATES AS SHOWN REPRESENT GROUND COORDINATES AND WERE CONVERTED BY APPLYING A SCALE FACTOR OF GRID/ 99993411. THE ORIGIN OF THE SCALING FOR THE ENTIRE PROJECT IS CONTROL POINT NO. 39, GRID=GROUND COORDINATES: NORTH 2115074.592 EAST 6013813.502. (REFER TO NOTE 6 ON SHEET GT–0100) CONTROL POINT NO. 39 SEARCHED FOR AND NOT FOUND ON APRIL 23, 2011.
7) BASIS OF ELEVATION IS DPW SURVEY CONTROL PT. NO. 54, BEING A C&A MAG NAIL AND WASHER IN THE CURB AT THE EASTERLY CORNER OF 2ND AND HOWARD STREETS. ELEV.=25.36 NAVD 88 VERTICAL DATUM.
8) CENTERLINE DATA DERIVED FROM PLAN SHEET C–0100.

Note:
If this sheet is not 44" x 34", it has been revised from its original size. Scales noted on drawings/details are no longer applicable.

TRANSBAY JOINT POWERS AUTHORITY

CONSULTANT:

CHAUDHARY & ASSOCIATES, INC.
ENGINEERS SURVEYORS INSPECTORS
851 NAPA VALLEY CORPORATE WAY, SUITE G
NAPA, CALIFORNIA 94558

REVISIONS

NO.	DATE	DESCRIPTION	BY
0	5–4–2011	INITIAL CONTROL DRAWING	HRK
1	5–13–2011	ADD NOTES AND VALUES REGARDING CONTROL POINT 101	HRK
2	5–16–2011	CORRECT GRAMMAR IN SURVEY PROCEDURES STATEMENT 1	HRK
3	6–1–2011	DELETE CP–210 AND ADD CP–217	HRK
4	9–14–2011	EDIT VALUES FOR CONTROL POINT 200	HRK
4	9–14–2011	ADD CONTROL POINTS 220–226 AND DELETE CP 211 & 216	HRK
5	10–5–2011	EDIT VALUES FOR POINTS 58, 200, 203, 212, AND 217.	HRK
5	10–5–2011	ADD CONTROL POINTS 227–229.	HRK
6	12–23–2011	ADD CONTROL POINT 233 AND REVISE VALUES	HRK
7		REVISE VALUES TO READ TO NEAREST 0.01'	HRK

CONTRACT NO. 08–04–CMGC–000

PROJECT TITLE TRANSBAY TRANSIT CENTER PROGRAM

SAN FRANCISCO, CA

SHEET TITLE SURVEY CONTROL AND CONCEPTUAL GRID AND CENTERLINE PLANS AND NOTES

SURVEYOR SEAL
LICENSED LAND SURVEYOR HELMUT R. KORSTICK No. 7739 STATE OF CALIFORNIA

APPROVED:
PRINCIPAL ARVIN K. CHAUDHARY
PROJECT MANAGER ARVIN K. CHAUDHARY
APPROVED:
PROJECT SURVEYOR HELMUT R. KORSTICK
DESIGNED BY: H. KORSTICK
CHECKED BY:
DRAWN BY: H. KORSTICK
DATE: DECEMBER 23, 2011
SCALE: 1"=60'
REVISION 7
SHEET NUMBER 1 OF 1

Elmo Dec 23, 2011 – 7:40am Q:\2011\11-03-14 Webcor T&F\DWG\01-CNT-GEC-2011-HRK.dwg

EXHIBIT "S"

Transbay Transit Center – San Francisco, CA

<u>Traffic Control Plan</u>
Webcor/Obayashi
WO-TCP0001
REVISION 2
8/22/2012

GENERAL

The Webcor/Obayashi Joint Venture (W/O) Traffic Control Plan that will be implemented on the Transbay Transportation Center Project is an overall project policy, with each trade subcontractor contributing their specific plan as they come on board to the project. The primary function of this plan is to provide a framework to insure compliance with Specification Section 01 15 70. To assist in this effort, W/O has enlisted the services of a traffic control consultant (TCC) – Sandis Engineering. Award of this contract between Sandis Engineering and W/O was based on a competitive request for proposal (RFP) process referred to as TG05.4.

TCC is responsible for participating in all aspects of traffic control planning and implementation including, but not limited to:

- Traffic control design oversight;
- Coordination between trade subcontractor traffic control designs;
- Interface with City of San Francisco and other agencies as necessary;
- Participate in coordination efforts of the TJPA Representative;
- Oversight of implementation of approved traffic plans;
- Provide daily reports regarding status of traffic control measures;
- On call traffic control services as requested.

TRAFFIC PLAN REVIEW AND COORDINATION

TCC shall prepare a detailed "as built" traffic plan for approximately four blocks in all directions from the jobsite. This map will be based on SFMTA maps and will be augmented as appropriate per field review of existing conditions. This map will include all striping, signage, curb lines, curb cuts, curb painting, buildings and any other feature of the street layout and traffic control. Beyond the four block distance, the map will include street layout and striping configuration.

Once a trade subcontractor is under contract, W/O shall provide the trade subcontractor with the as-built plan in CADD format. The trade subcontractor will then be required to use this base map for preparation of all their traffic control plans. A summary of the below criteria can be found in the attached Traffic Control Plan Preparation Packet.

The trade subcontractor is required to prepare and submit a complete traffic plan consistent with requirements of the project specification and all requirements per the City of San Francisco. The submittal must be made in a timely fashion to allow for the review timeframe prescribed in the specifications plus an additional four weeks for review by the TCC.

Upon receipt of the submittal from trade subcontractor, W/O will forward it to the TCC for review. The plan will be reviewed for adherence to specifications and for compatibility with previously submitted plans. Comments will be returned to the trade subcontractor who will make modifications as is appropriate.

When the trade subcontractor's traffic control plan is reviewed and coordinated with the TCC, it will be submitted to the TJPA Representative for approval. Submittal will be in compliance with Specification Section 01 15 70, paragraph 1.4B.

Upon approval by the TJPA Representative and SFMTA, the TCC will update the baseline traffic

control plan as appropriate. The baseline plan will be updated only when a change to the traffic pattern will be in place for three or more months. If the traffic control plan will be in place for less than three months, the plan will be superimposed over the base map for coordination but the baseline drawing will not be modified.

FIELD IMPLEMENTATION

It is intended that the TCC will maintain a regular, but not full time, presence on site. Similar to the traffic control design review, their scope of work is to review the trade subcontractor's adherence to city standards, project specifications and approved traffic control plans.

TCC review and assistance in in field coordination includes but is not necessarily limited to:

- Perform site review of traffic control;
- Note traffic control deficiencies;
- Coordinate correction of site deficiencies with W/O and trade subcontractor;
- Provide daily report of traffic control observations and corrective measures;
- Attend site meetings as necessary to review short term Special Traffic Permit and coordinate between subcontractors and SFMTA;
- Miscellaneous coordination with SFMTA as necessary;
- Review of pedestrian protection as it relates to vehicle traffic;
- Provide traffic control devices and personnel as required to augment traffic control efforts;
- Confirm proper training of subcontractor flagging personnel;
- Provide continuous oversight of traffic control for major construction operations as determined by CM/GC.

TASKS NOT CURRENTLY ANTICIPATED BY TCC

Training of flaggers for the trade subcontractors although it is an option should it become apparent that subcontractor employees need additional training.

Coordination of the 10b police officers between subcontractors will be the responsibility of the CMO.

Pedestrian control unless it is specifically impacted by vehicle traffic.

TRANSBAY TRANSIT CENTER – TRAFFIC CONTROL PLAN PREPARATION PACKET

Overview

The purpose of this packet is to provide the contractor with the information necessary to prepare a Traffic Control Plan (TCP) for their work in accordance with the requirements of the Project Specifications and the City and County of San Francisco (CCSF). It includes procedures, timing, a base map, plan sheet template and examples for use when preparing and submitting Traffic Control Plans (TCPs) for review and approval. The documents included in the TCP Packet are described below.

Flow Diagram

The flow diagram included within the TCP packet identifies the specific components and required time intervals for TCP submittal, review and approval. Please note time requirements for Plan review and approval. No work will be allowed without an approved plan. It is the contractor's responsibility to anticipate and allow for required lead times.

Base Map File

The AutoCAD drawing of the Base Map file included in this packet represents the City of San Francisco street layout as of the date indicated on the Base Map file title block. ALL proposed TCPs shall be created using this Base Map file as a starting point. It is crucial that proposed TCPs be provided on the same coordinate system as the Base Map file so multiple approved TCPs can be overlain in a composite exhibit. TCPs prepared using a different base or plan template will be rejected.

TCP Standards

Design Standards

The Traffic Control Plans shall be prepared and submitted in accordance with the following documents:

1. Transbay Transit Center Project Specification Section 011570 – Traffic Routing Work, dated September 23, 2010. A copy of this specification is included in the TCP Packet.

2. City and County of San Francisco Regulations for Working in San Francisco Streets (Bluebook), 7th Edition dated October 2006. Refer to the following link for a copy of this document: http://www.sfmta.com/bluebook

CAD Standards

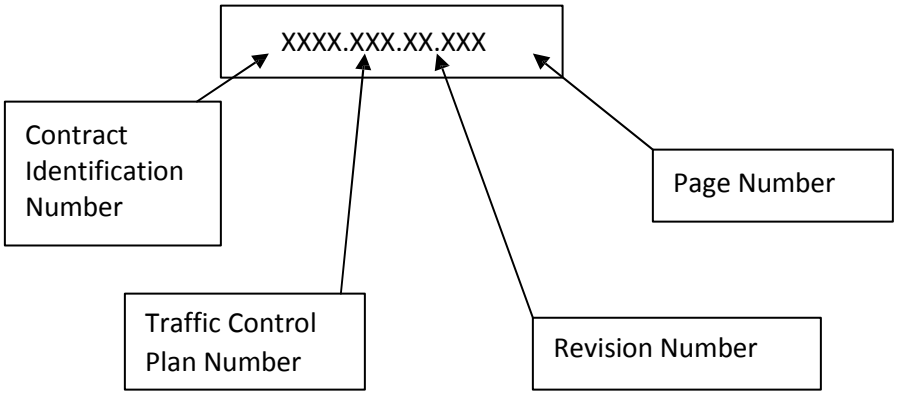
The sheet TCP-001 provides a template with title block, symbols, and specific details pertaining to the presentation and setup of drawings to be used when preparing a TCP. The CAD standards identified under the Vendor Submittal Instructions, including layering configuration, title block, and symbols, shall be referenced and followed when creating all TCP AutoCAD drawings. The contractor shall include additional signs in the form of blocks, notes, and details as needed.

TCP Samples

There are three sample Traffic Control Plans included in this packet. These samples provide an example of how the TCPs shall be set up and configured.

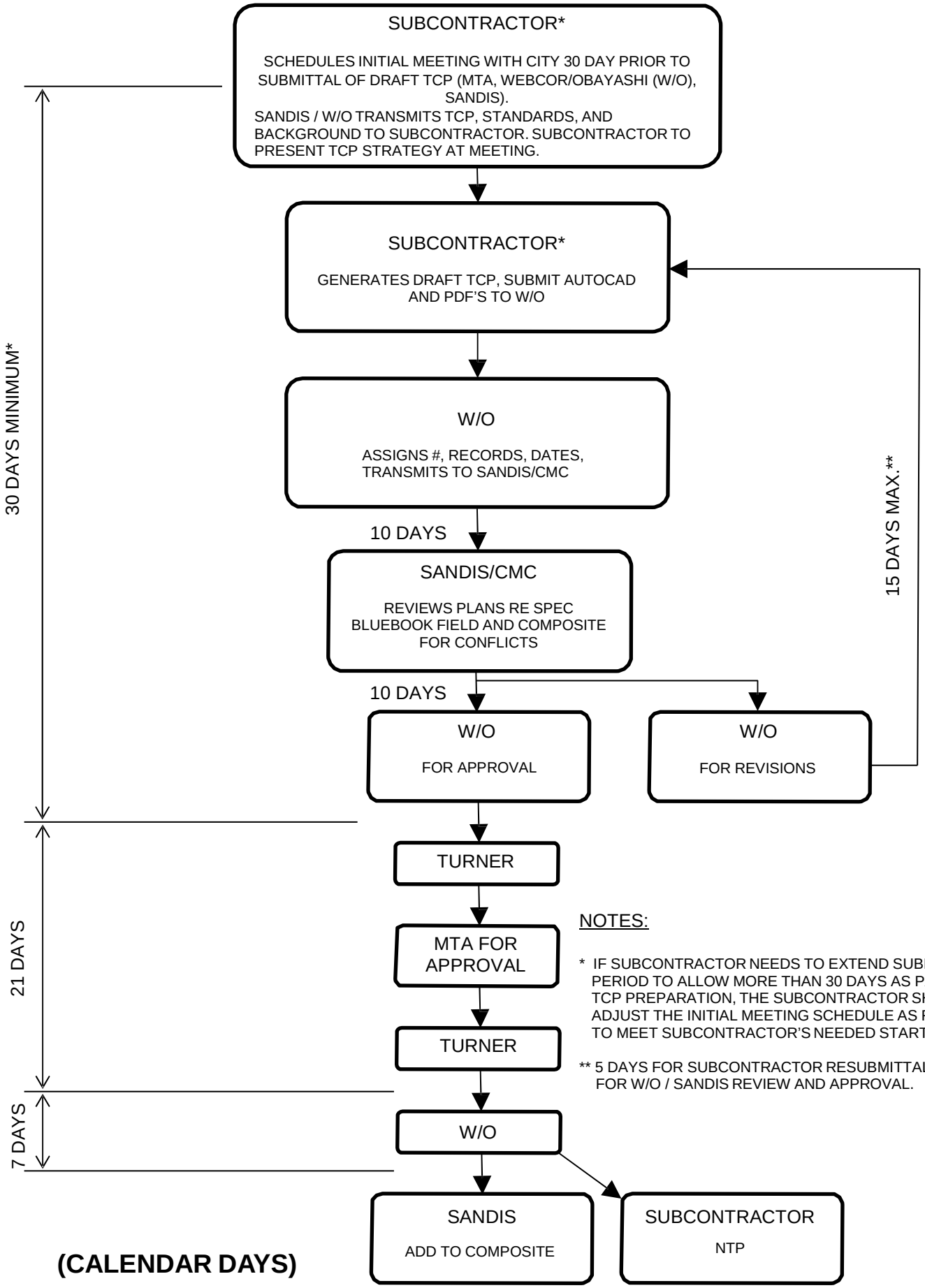
TCP Submittals

All proposed Traffic Control Plans shall be submitted at 1”=80’ scale on 22”x34” sheet size in both pdf and AutoCAD 2007 formats. They are to be submitted electronically to Webcor-Obayashi’s trade package project manager. An important item to be included on all TCP sheets is the submittal tracking number. The tracking number consists of four segments separated by a period. The first segment is the 4-digit contract identification number, the second segment the 3-digit TCP number (provided by Webcor), the third segment is the 2-digit revision number, and the fourth the 3-digit page number. Refer to the Submittal Tracking Number Diagram below for additional direction.



Submittal Tracking Number Diagram

TRAFFIC CONTROL PLAN SUBMITTAL REVIEW AND APPROVAL PROCESS



NOTES:

* IF SUBCONTRACTOR NEEDS TO EXTEND SUBMITTAL PERIOD TO ALLOW MORE THAN 30 DAYS AS PART OF TCP PREPARATION, THE SUBCONTRACTOR SHALL ADJUST THE INITIAL MEETING SCHEDULE AS REQUIRED TO MEET SUBCONTRACTOR'S NEEDED START DATE.

** 5 DAYS FOR SUBCONTRACTOR RESUBMITTAL. 10 DAYS FOR W/O / SANDIS REVIEW AND APPROVAL.

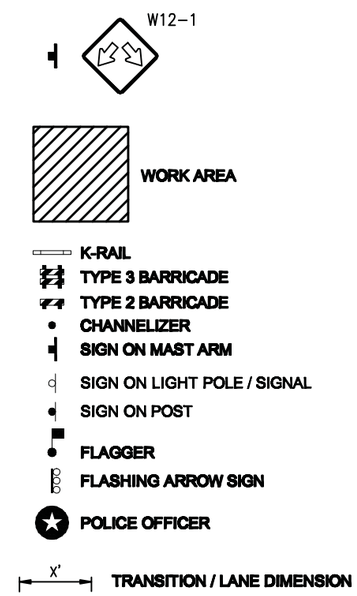
(CALENDAR DAYS)

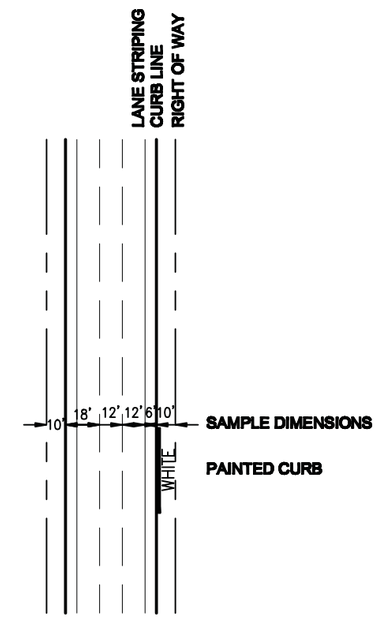
VENDOR SUBMITTAL INSTRUCTIONS

TRAFFIC CONTROL PLANS SHALL BE SUBMITTED AS FOLLOWS:

1) FIVE (5) HARD COPIES
2) ELECTRONIC COPY IN PDF AND AUTOCAD 2007 FORMATS
3) 11"x17" SHEET SIZE
4) 1"=80' SCALE
5) SHEET NUMBERING "TCP-###"
6) ELECTRONIC FORMAT PER TEMPLATE PROVIDED: SINGLE CAD FILE CONTAINING MULTIPLE LAYOUT TABS WITH A SINGLE TCP PER TAB. THE TCP SHALL BE DRAFTED IN MODEL SPACE ON TOP OF THE STREET BASE FILE WITH NOTES/LEGEND IN PAPER SPACE. MODEL SPACE SHALL BE DRAFTED AS FOLLOWS:
   a) EACH TCP PAGE SHALL CONSIST OF FIVE LAYERS WITH A PREFIX FOR THAT PAGE NUMBER. FOR EXAMPLE, PAGE 001 WOULD CONTAIN THE FOLLOWING LAYERS:
      001-TC-DIM
      001-TC-NOTES
      001-TC-SIGN
      001-TC-SIGNTEXT
      001-TC-STRIPELINE
      001-TC-WORKAREA
   b) ALL SYMBOLS, BLOCKS AND DIMENSIONS SHALL MATCH THOSE ON THIS SHEET IN SIZE, COLOR, AND LAYER. CREATE NEW BLOCKS USING SIMILAR COLOR AND SIZE FOR SIGNS/DEVICES NOT SHOWN HERE.
   c) INSERT STANDARD TITLE BLOCK PER SHEET. USE ATTRIBUTE EDITOR TO FILL IN TITLE BLOCK WITH APPLICABLE INFORMATION.
   d) TABLES, NOTES, AND LEGENDS SHALL BE IN PAPER SPACE PER SHEET ON LAYER XXX-TC-GENERAL, WHERE XXX IS THE PAGE NUMBER
   e) STANDARD TEXT STYLES, SIZES, DIM STYLES PER TEMPLATE
   f) STANDARD LAYER COLORS AND NAMES; AND CTB/PEN SETTINGS PER TEMPLATE
   g) FREEZE LAYERS IN VIEWPORTS AS NECESSARY TO ONLY SHOW THOSE NEEDED FOR THAT INDIVIDUAL SHEET.
7) REFER TO PROVIDED SAMPLE TCP PLAN FOR AN EXAMPLE OF THE FORMAT BEING IMPLEMENTED.

NOTE:
SAMPLE TEXT FOR FREESTANDING NOTES.





APPROVAL

TURNER

	DATE	INITIAL
RECEIVED		
TO SFMTA		
TO W/O WITH SFMTA APPROVAL		

SFMTA

	DATE	INITIAL
RECEIVED		
1ST REVIEW		
2ND REVIEW		
APPROVAL		

WEBCOR BUILDERS
OBAYASHI

TJPA
TRANSBAY JOINT POWERS AUTHORITY

VENDOR

SEAL

PROJECT 1
PROJECT 2
PROJECT 3

PROJECT

XXXX.XXX.XX.XXX

WEBCOR SUBMITTAL No.

No.	REVISION	DATE
X	-----	XX/XX/XX

SCALE: 1"=80'
DATE: XX/XX/XX

TRAFFIC CONTROL STANDARDS

TCP-001

SHEET

LEGEND

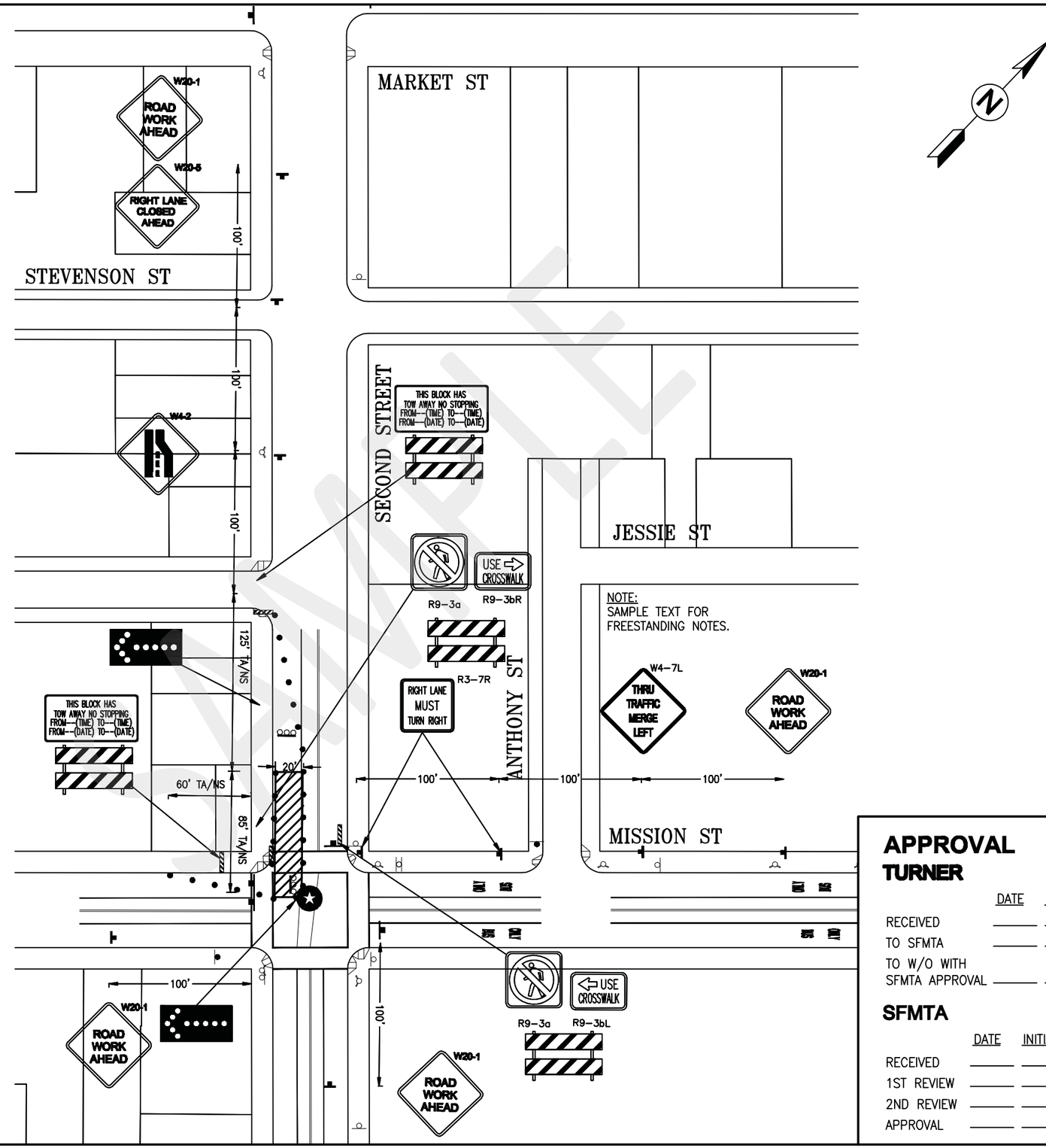
- TYPE II BARRICADE
- TYPE III BARRICADE
- CHANNELIZING DEVICE
- TRAFFIC CONE WITH CLIP ON SIGN
- SIGN
- ARROW PANEL (FLASHING ARROW)
- FLAGGER
- POLICE OFFICER
- WORK ZONE (ACTIVITY AREA) LIMITS

TABLE I.				
MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET = 12 FT (3.6m)				
APROACH SPEED MPH (km/h)	MERGING L FT (m)	SHIFTING L/2 FT (m)	SHOULDER L/3 FT (m)	DOWN STREAM FT (m)
20 (30)	80 (21)	40 (10)	27 (7)	100 (30)
25 (40)	125 (37)	63 (19)	42 (12)	100 (30)
30 (50)	180 (55)	90 (29)	60 (18)	100 (30)
35 (60)	245 (84)	123 (42)	82 (25)	100 (30)
40 (70)	320 (158)	160 (79)	107 (53)	100 (30)
45 (80)	540 (180)	270 (90)	180 (60)	100 (30)
50 (90)	600 (205)	300 (101)	200 (68)	100 (30)
55 (100)	660 (225)	330 (113)	220 (75)	100 (30)
60 (110)	720 (245)	360 (124)	240 (82)	100 (30)
65	780	390	260	100
70	840	420	280	100

APPROACH SPEED (MPH)	MAXIMUM CHANNELIZER SPACING		
	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)
20	21	42	10
25	26	63	13
30	32	63	15
35	37	74	18
40	42	84	20
45	48	95	23
50	53	106	25
OVER 50	74	148	35

NOTES:
1) WORK HOURS: 9:00 AM TO 3:00 PM

80 0 80 160
1" = 80' GRAPHIC SCALE



NOTE:
SAMPLE TEXT FOR FREESTANDING NOTES.

APPROVAL
TURNER

	DATE	INITIAL
RECEIVED		
TO SFMTA		
TO W/O WITH SFMTA APPROVAL		

SFMTA

	DATE	INITIAL
RECEIVED		
1ST REVIEW		
2ND REVIEW		
APPROVAL		

WEBCOR BUILDERS
OBAYASHI
TJPA TRANSBAY JOINT POWERS AUTHORITY

VENDOR

SEAL

PROJECT

PROJECT

WEBCOR SUBMITTAL No.

No.	REVISION	DATE
X	-----	XX/XX/XX

SCALE: 1"=80'
DATE: XX/XX/XX

TRAFFIC CONTROL STANDARDS

SHEET

TCP-002

LEGEND

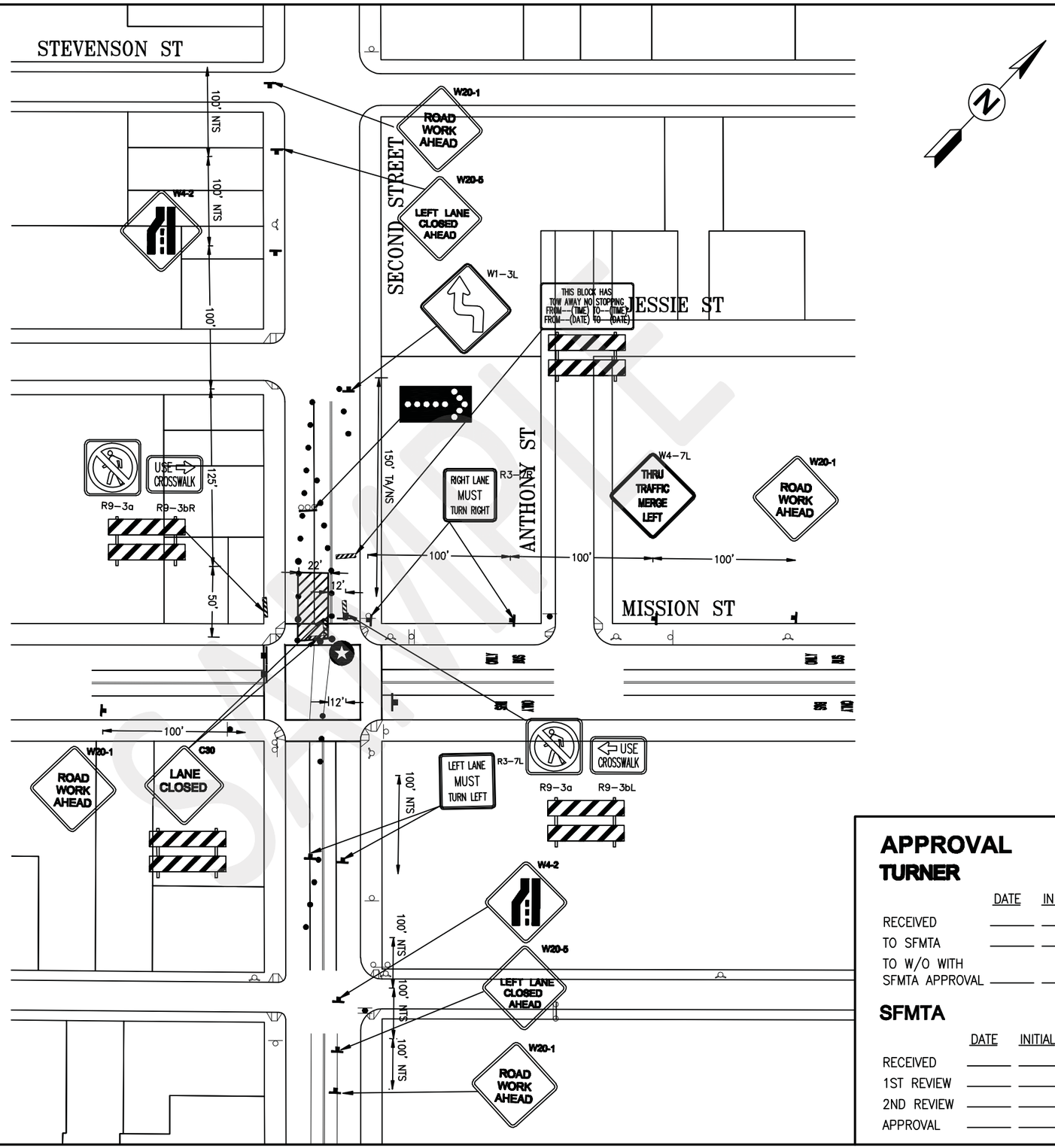
- TYPE II BARRICADE
- TYPE III BARRICADE
- CHANNELIZING DEVICE
- TRAFFIC CONE WITH CLIP ON SIGN
- SIGN
- ARROW PANEL (FLASHING ARROW)
- FLAGGER
- POLICE OFFICER
- WORK ZONE (ACTIVITY AREA) LIMITS

TABLE I.				
MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET = 12 FT (3.6m)				
APROACH SPEED MPH (km/h)	MERGING L FT (m)	SHIFTING L/2 FT (m)	SHOULDER L/3 FT (m)	DOWN STREAM FT (m)
20 (30)	80 (21)	40 (10)	27 (7)	100 (30)
25 (40)	125 (37)	63 (19)	42 (12)	100 (30)
30 (50)	180 (55)	90 (29)	60 (18)	100 (30)
35 (60)	245 (84)	123 (42)	82 (25)	100 (30)
40 (70)	320 (158)	160 (79)	107 (53)	100 (30)
45 (80)	540 (180)	270 (90)	180 (60)	100 (30)
50 (90)	600 (205)	300 (101)	200 (68)	100 (30)
55 (100)	660 (225)	330 (113)	220 (75)	100 (30)
60 (110)	720 (245)	360 (124)	240 (83)	100 (30)
65	780	390	260	100
70	840	420	280	100

APROACH SPEED (MPH)	MAXIMUM CHANNELIZER SPACING		
	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)
20	21	42	10
25	26	63	15
30	32	60	15
35	37	74	18
40	42	84	20
45	48	96	23
50	53	106	25
OVER 50	74	148	35

NOTES:
1) WORK HOURS: 9:00 AM TO 3:00 PM

80 0 80 160
1" = 80' GRAPHIC SCALE



APPROVAL

TURNER

	DATE	INITIAL
RECEIVED		
TO SFMTA		
TO W/O WITH SFMTA APPROVAL		

SFMTA

	DATE	INITIAL
RECEIVED		
1ST REVIEW		
2ND REVIEW		
APPROVAL		

WEBCOR BUILDERS
OBAYASHI
TJPA TRANSBAY JOINT POWERS AUTHORITY

VENDOR

SEAL

PROJECT

PROJECT

WEBCOR SUBMITTAL No.
#######

No.	REVISION	DATE
X	-----	XX/XX/XX

SCALE: 1"=80'
DATE: 08/10/11

TRAFFIC CONTROL STANDARDS

SHEET

TCP-003

LEGEND

- TYPE II BARRICADE
- TYPE III BARRICADE
- CHANNELIZING DEVICE
- TRAFFIC CONE WITH CLIP ON SIGN
- SIGN
- ARROW PANEL (FLASHING ARROW)
- FLAGGER
- POLICE OFFICER
- WORK ZONE (ACTIVITY AREA) LIMITS

TABLE I.				
MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET = 12 FT (3.6m)				
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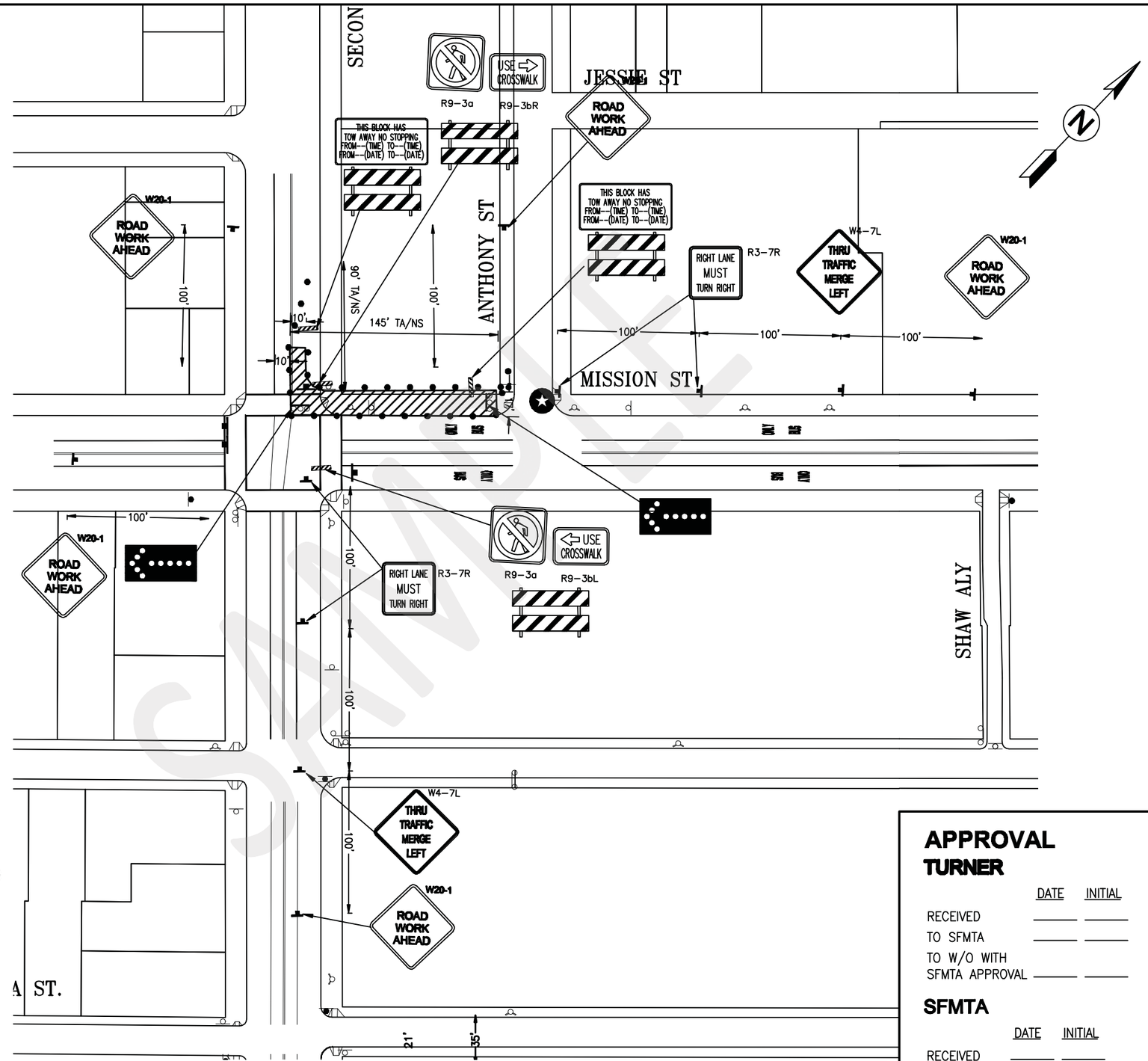
25 (40)	125 (37)	65 (19)	42 (12)	100 (30)
30 (50)	180 (55)	90 (29)	60 (18)	100 (30)
35 (60)	245 (84)	123 (42)	82 (28)	100 (30)
40 (70)	320 (158)	160 (79)	107 (53)	100 (30)
45 (80)	540 (180)	270 (90)	180 (60)	100 (30)
50 (90)	600 (203)	300 (101)	200 (68)	100 (30)
55 (100)	660 (225)	330 (113)	220 (75)	100 (30)
60 (110)	720 (248)	360 (124)	240 (83)	100 (30)
65	780	390	260	100
70	840	420	280	100

APROACH SPEED (MPH)	MAXIMUM CHANNELIZER SPACING		
	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)
20	21	42	10
25	26	65	13
30	32	60	15
35	37	74	18
40	42	84	20
45	48	96	23
50	55	110	25
OVER 50	74	148	35

NOTES:
1) WORK HOURS: 9:00 AM TO 3:00 PM

80 0 80 160
1" = 80' GRAPHIC SCALE



APPROVAL

TURNER

	DATE	INITIAL
RECEIVED		
TO SFMTA		
TO W/O WITH SFMTA APPROVAL		

SFMTA

	DATE	INITIAL
RECEIVED		
1ST REVIEW		
2ND REVIEW		
APPROVAL		

WEBCOR BUILDERS
OBAYASHI
TJPA TRANSBAY JOINT POWERS AUTHORITY

VENDOR

SEAL

PROJECT

PROJECT

WEBCOR SUBMITTAL No.
#######

No.	REVISION	DATE
X	-----	XX/XX/XX

SCALE: 1"=80'
DATE: 08/10/11

TRAFFIC CONTROL STANDARDS

SHEET
TCP-004

Exhibit U Submittal Schedule

Trade Subcontractor's Schedule submission shall include a full submittal schedule per Specification Section 01 13 00 1.4 – Submittal Schedule.

1. All submittals are to be submitted to Webcor/Obayashi Joint Venture within 60 days of Award.
2. The Submittal Schedule shall contain additional data fields to indicate: 1) the duration in work days for procurement of the item starting from the date that the submittal is approved until the item is available for construction, and 2) the Activity ID of the earliest construction activity for which the item will be required (the submittal/procurement item's successor).
3. The Trade Subcontractor should use the attached data format, Submittal Schedule Excel Template, for the submission of Submittal Schedule as Microsoft Excel File. Contact Webcor/Obayashi Joint Venture to obtain the blank excel file of the Submittal Schedule.
4. The Trade Subcontractor shall show critical submittals in the Exhibit I Construction Schedule <u>in addition to</u> providing the comprehensive submittal schedule required herein. Critical submittals are those submittals considered vital to the timely progression of the project schedule. These items may include, but are not limited to, engineering submissions; long lead items; items required within the first 25% of Subcontractor's performance period; and items that are required for construction or installation of a task with less than 20 working days of total float in the overall project schedule. The last group of items may not be determined until after acceptance of the Trade Subcontractor Construction Schedule submission and its full incorporation into the project schedule. Therefore, the Subcontractor may be required to add items to its Primavera schedule file subsequent to approval of its Construction Schedule submission.

PMFSMI_COMP_CODE	PMFSMI_PROJ_CODE	PMFSMI_SBMT_ID	PMFSMI_SBMT_NAME	PMFSMI_PKG_CODE	PMFSMI_REC_FROM_PARTN_ABBREV	PMFSMI_REC_FROM_CONTACT_COD	PMFSMI_RET_BY_PARTN_ABBREV	PMFSMI_RET_BY_CONTACT_COD	PMFSMI_SENT_TO_PARTN_ABBREV	PMFSMI_SENT_TO_CONTACT_COD	PMFSMI_FWD_TO_PARTN_ABBREV	PMFSMI_FWD_TO_CONTACT_COD
Always 30	Project #	Submittal #	Submittal Name		Received From Partner Abbreviation(Sub)	From Contract Code(Sub)	Return By Partner Abbreviation (Architect)	Returned By Contact Code(Architect)	Sent To Partner Abbreviation (Architect)	Sent to Contact Code (Architect)	Forward To Partner Abbreviation(Sub)	Forward to Contact Code(Sub)
30	30100	[T-000000-001]	Test Submittal	TG####-001	ADERH023	BOBBRO2	TURNE361		TURNE361			

PMFSMI_REQUIRED_START_DATE DATE DD-MON-RRRR	PMFSMI_REQUIRED_END_DATE DATE DD-M	PMFSMI_CLV_VALUE_CODE1		PMFSMI_CLV_VALUE_CODE2		PMFSMI_CLV_VALUE_CODE3		PMFSMI_CLV_VALUE_CODE4	PMFSMI_CLV_VALUE_CODE5	PMFSMI_CLV_VALUE_CODE6	PMFSMI_SBMT_STATUS_CODE
DO NOT USE	DO NOT USE	LEED MR 1 (See Sheet 2)	Credit Specific Data	LEED MR 2 (See Sheet 2)	Credit Specific Data	LEED EQ (See Sheet 2)	Credit Specific Data				Use PEND
											PEND

PMFSMI_ACTIVITY_START_DATE DATE DD-MON-RRRR	PMFSMI_DATE_CHANGE_CODE	PMFSMI_COPIES_NUM	PMFSMI_LEAD_TIME_STAGE6	PMFSMI_LEAD_TIME_STAGE5	PMFSMI_LEAD_TIME_STAGE4	PMFSMI_LEAD_TIME_STAGE3	PMFSMI_LEAD_TIME_STAGE2	PMFSMI_LEAD_TIME_STAGE1	PMFSMI_SPEC_SEC_CODE	PMFSMI_SORT_ORDER_NUMBER	PMFSMI_CLOSED_DATE DATE DD-MON-RRRR
	DO NOT USE	Number of Copies	Lead time Delivery	Lead Time Fabrication	Lead Time Float	Lead Time Arch Review	Lead Time Webcor Review	Lead Time From Sub to Web	Spec Section	DO NOT USE	DO NOT USE
		6	5	8	5	21	5	5			

PMFSMI_TYPE_CODE	PMFSMI_SPEC_SUBSEC_CODE	PMFSMI_PROC_FLG	Schedule Activity ID
Type Code(See Sheet 2)	Spec Sub Section	Procurement Flag	
		Choose Yes or No	

Code List for Submittal Schedule Data

Submittal Types

3DCORD	3D Coordination
ASBUILT	As Built Drawings
ATTIC	Attic Stock
BRUSH	Brushouts
CALC	Calculations
CERT	Certificates
CLOSE	Close Out
COMM	Commissioning
DRAW	Shop Drawings
LEED	LEED Documentation
METHODS	Methods
MOCK	Mock Up
MSDS	MSDS Documentation
PRIME	Prime Level
PROD	Product Data
QUAL	Qualifications
SAMPLE	Samples
SCHED	Schedules
SURVEY	Survey
TEST	Test Reports

LEED MR1

Code	
NC MR 3	Material Reuse
NC MR 4	Recycled Content
NC MR 5	Regional Materials
NC MR 6	Rapidly Renewable Materials
NC MR 7	Certified Wood
CS MR 3	Material Reuse
CS MR 4	Recycled Content
CS MR 5	Regional Materials
CS MR 6	Certified Wood
CI MR 3	Resource Reuse
CI MR 4	Recycled Content
CI MR 5	Regional Materials
CI MR 6	Rapidly Renewable Materials
CI MR 7	Certified Wood

LEED MR2

Code	
NC MR 3	Material Reuse
NC MR 4	Recycled Content
NC MR 5	Regional Materials
NC MR 6	Rapidly Renewable Materials
NC MR 7	Certified Wood
CS MR 3	Material Reuse
CS MR 4	Recycled Content
CS MR 5	Regional Materials
CS MR 6	Certified Wood
CI MR 3	Resource Reuse
CI MR 4	Recycled Content
CI MR 5	Regional Materials
CI MR 6	Rapidly Renewable Materials
CI MR 7	Certified Wood

LEED EQ

Code	
NC EQ 4.1	Low-Emitting Materials: Adhesives & Sealants
NC EQ 4.2	Low-Emitting Materials: Paints & Coatings
NC EQ 4.3	Low-Emitting Materials: Carpet Systems
NC EQ 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products
CS EQ 4.1	Low-Emitting Materials: Adhesives & Sealants
CS EQ 4.2	Low-Emitting Materials: Paints & Coatings
CS EQ 4.3	Low-Emitting Materials: Carpet Systems
CS EQ 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products
CI EQ 4.1	Low-Emitting Materials: Adhesives & Sealants
CI EQ 4.2	Low-Emitting Materials: Paints & Coatings
CI EQ 4.3	Low-Emitting Materials: Carpet Systems
CI EQ 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products
CI EQ 4.5	Low-Emitting Materials: Systems Furniture & Seating

EXHIBIT "W"

The information, processes, techniques, material and other matters contained in the Quality Commissioning Procedures and Guidelines are proprietary, confidential, and unique to WEBCOR/OBAYASHI.

The Quality Commissioning Procedures and Guidelines shall only be used for WEBCOR/OBAYASHI only.

Any other use without the expressed written consent from an Officer of WEBCOR/OBAYASHI is prohibited. Any unauthorized use could give rise to liability under the California Civil Code Sections 3426 et seq. involving Uniform Secrets Act, the California Business and Professions Code Sections 17200 et seq. involving Unfair Competition and 17500 et seq. involving Unfair Practices, the common law of unfair competition and interference with contractual relations and prospective advantage.

Table of Contents

QUALITY COMMISSIONING PROCEDURES AND GUIDELINES
Exterior Skin and Waterproofing Systems

- ✓ **Roofs**
- ✓ **Decks**
- ✓ **Windows**
- ✓ **Curtain Walls**
- ✓ **Exterior Wall Systems (Precast, Stucco, EIFS, GFRC)**
- ✓ **Water Shedding Systems**
- ✓ **Flashings**
- ✓ **Expansion Joints**
- ✓ **Caulking, Sealants**
- ✓ **Primary and Secondary Water Barrier Systems**
- ✓ **Above & Below Grade Waterproofing**
- ✓ **General Waterproofing Systems**

1.0 Purpose

The purpose of this procedure and guideline is to set forth a commissioning process, which will ensure that the building's exterior envelop and waterproofing systems perform and function in conformity with design intent and to provide a means of verifying the implementation of these systems based on the project specifications, design and applicable industry standards.

2.0 Definition of Commissioning

The term "Commission" refers to a Quality Assurance process by which the building's exterior envelop and waterproofing systems (i.e., below and above-grade waterproofing, decks, roofs, caulking, plaster, precast concrete and GFRC, curtain-wall, flashing, expansion joints, etc.) are provided, installed and tested in order to verify the systems perform in accordance with the contract documents and the design intent.

Commissioning entails the development of a clear and complete process that verifies the systems design and operational intent. It also is to verify that the exterior envelop and waterproofing systems and its components are installed according to the contract documents, manufacturer's recommendations and published industry standards and that the system receives adequate installation and performance inspections by the installing contractor.

The process must include verifying and documenting the installation steps, phases, and system performance with respect to the design intent and the contract documents. Commissioning is a team effort that requires cooperation by all parties to succeed.

3.0 Description of the Commissioning Process

Commissioning is a **"systematic"** process for achieving, validating and documenting the performance of building systems as so that it meets the design intent and requirements.

The process extends through all phases from design to occupancy, and extending through the warranty period. Numerous checks and inspections shall be performed at each stage of the process to ensure that established procedures are followed. The process also includes training of facility operational personnel to ensure continued efficient use of the exterior envelop and waterproofing systems as originally designed and installed.

This guideline provides a uniform, integrated and consistent approach for the commissioning of all waterproofing systems as well as assisting in insuring product and design compatibility. Since many building waterproofing systems are integrated, a deficiency in one system or component may result in sub-optimal performance and failure among others.

4.0 Commissioning Plan

Commissioning is a **"Quality Process"** for validating the system and component design performance.

The reports from the commissioning process are not just test reports, but reports that document design, installation, inspections, and particular tests and or evaluation procedures. The commissioning plan is continually updated to reflect changes in program and design of the waterproofing system(s). Commissioning reports shall document and record the results of the commissioning process.

Each Trade Subcontractor's specific commissioning plan must be neatly organized in a consistent manner that reflects the nature of the building systems and their performance. The commissioning plan shall include schedules, requirements and procedures.

Trade Subcontractor(s) shall be responsible for the timely and efficient completion of all commissioning in accordance with the Subcontract Agreement.

At no time shall any work be permitted to commence without a WEBCOR/OBAYASHI' approved Trade Subcontractor Waterproofing Commissioning Program.

Failure to do so may require Trade Subcontractor to assume all related costs and expenses in accordance with the Subcontract Agreement.

In addition, Trade Subcontractor may also be required to assume all related cost should WEBCOR/OBAYASHI find it necessary to develop, manage and or perform any Trade Subcontractor commissioning work.

5.0 Objectives

The fundamental objectives of the commissioning process are:

5.1 Create a procedure to verify and provide documentation that the waterproofing performance of the facility meet the design requirements.

5.2 Enhance communication by documenting data and decisions throughout all phases of the project.

5.3 Validate and report that the performance of waterproofing systems meets design intent.

5.4 Provide a means of Quality Control and Quality Assurance (QA/QC) throughout all phases of the waterproofing system(s) installation, inspection, and testing process.

6.0 Contractors Normally Participating in the Commissioning Process

- ✓ Waterproofing Consultant
- ✓ Architect
- ✓ Structural Engineer
- ✓ Mechanical
- ✓ Plumbing
- ✓ Electrical
- ✓ Fire Sprinkler
- ✓ Glass Systems
- ✓ Caulking
- ✓ Brick, Tile, Precast, GFRC, and Stone
- ✓ Fountains and Ponds
- ✓ Swimming Pools & Spas
- ✓ Roofing
- ✓ Insulation
- ✓ Flashing & Sheetmetal
- ✓ Waterproofing Contractors
- ✓ Concrete (If waterproofing admixtures are included by design)
- ✓ Stucco, EIFS, DEFS systems
- ✓ Elastomeric Painting
- ✓ Rough Carpentry (Wood cladding)
- ✓ Architectural Metal Cladding
- ✓ Expansion Joint Systems
- ✓ Water Tanks
- ✓ Special Systems or Components

7.0 Commissioning Team

The commissioning team members may consist of the following:

- ✓ WEBCOR/OBAYASHI - Project Team as required

- ✓ Owner - Designated representative of the owner, building operator/engineer, and/or the owner's construction management firm
- ✓ Engineers - Architect and Designers
- ✓ Waterproofing Contractor
- ✓ Waterproofing Consultant
- ✓ Flashing / Sheet Metal Contractor
- ✓ Exterior Skin Contractor
- ✓ Roof Contractor
- ✓ Glass and Curtain Contractor
- ✓ Caulking and Sealants Contractor
- ✓ Commissioning Agent (CA)
- ✓ Mechanical Contractor
- ✓ Plumbing Contractor
- ✓ Fire Sprinkler Contractor
- ✓ Electrical Contractor
- ✓ Testing Contractor
- ✓ Other as necessary

8.0 Meetings

Regularly scheduled commissioning meetings of **the entire team** shall be conducted for site coordination, communicating issues of concern, resolving conflicts, reporting on system process and status, identifying urgent work and all deficiencies.

Commissioning meetings are critical to the **Quality** of the commissioning process as well as timely completion of the project.

9.0 Trade Subcontractor Performance Requirements

9.1 Designation of the primary person who will be responsible, accountable, and act as the main contact person for all commissioning communications. Provide organizational chart indicating personnel who will be involved in the project. The chart should indicate factory, office, and on-site field personnel.

9.2 Review of drawings and specifications for completeness, appropriateness of details, and acceptance by Trade Subcontractor thereof.

9.3 Review WEBCOR/OBAYASHI standard details.

9.4 Preparing and submitting documentation of Trade Subcontractor's respective materials and systems to be integrated into the overall Commissioning Plan.

9.5 Submitting information on the intended commissioning protocol used on materials, and the integration into the system as a whole.

9.6 Provide a presentation of the commissioning process to WEBCOR/OBAYASHI, the Owner and or the owner's representatives. Demonstration shall indicate compliance with the Trade Subcontractor Commissioning requirements as outlined in this document.

9.7 Submitting shop drawings detailing waterproofing system layout as outlined in the contract documents. Shop drawings shall reflect all conditions present in the building, including but not limited to the following:

a. Conditions where different materials meet (i.e. windows to plaster or stone to plaster).

b. Corner conditions.

c. Conditions where vertical planes meet horizontal planes (i.e. soffits and sills).

d. Expansion joints and control joints.

e. Flashing.

f. Penetrations (i.e. Z-ducts, electrical outlets, louvers).

g. Conditions typically utilized by Trade Subcontractor's common practices.

Shop drawings shall include installation drawings indicating the planned sequence of installation of all components.

9.8 Providing means and method for preliminary testing of the exterior envelop and waterproofing systems with manufacturer's representative present as required:

a. Caulking: Include complete coordination with the caulking manufacturer's representative to assure compatibility of the caulking system with the

surrounding substrate and finishes. Trade Subcontractor shall submit caulking samples including manufacturer's specifications for materials, color, cleaning procedure, required primers, proper backer rod, installation procedures, testing requirements and results. Testing of caulking samples between all combinations of materials shall be performed by qualified testing agencies in direct accordance with A.S.T.M. Standard Test Method C794 (75), including seven (7) day immersion. A letter from the Caulking Manufacturer shall be submitted approving all testing procedures, the installation procedure and the use of the specified materials for the intended application. Any materials installed without such approval that may be in conflict with the approved procedures or of unacceptable color and appearance will be removed and replaced at the Trade Subcontractor's expense.

b. Windows and Sliding Glass Doors: Assemblies shall be field tested in accordance with American Architectural Manufacturers Association (AAMA) 502-02 Voluntary Specification for Field Testing of Windows and Sliding Glass Doors using Test Methods A and B, testing a minimum of 1% of the products for air leakage resistance and water penetration resistance as specified for various stages of the product installation.

9.9 Reviewing all required testing under the witnessing of WEBCOR/OBAYASHI, Building Owner, and or the Owners representatives.

9.10 Correcting all system deficiencies at Trade Subcontractor expense.

9.11 Obtaining all required permits, code required inspections and final certifications.

9.12 Preparing complete as-built record drawings made from an original set that has been marked up throughout the duration of the project. Drawings must indicate all work as it was actually installed showing change order revisions, field changes required to meet the working conditions, and any other items that will affect or reflected in the operation and maintenance of the facility.

9.13 Obtaining all manufacturer’s warranties and guarantees.

9.14 Organizing the O&M manuals, if any, from suppliers and manufacturers.

9.15 Performing any specified training for the facility’s operational staff.

10.0 Information Management

The management and continued organization of the commissioning information shall be the sole responsibility of the Trade Subcontractor.

WEBCOR/OBAYASHI and the Trade Subcontractor shall mutually agree on the location were all the commissioning information and documentation shall be stored.

The Trade Subcontractor shall make every effort to continually update and manage the information throughout the commissioning process. WEBCOR/OBAYASHI and the Building Owner may review the commissioning information provided by the Trade Subcontractor at any time for updates, accuracy and completeness.

WEBCOR/OBAYASHI may elect to withhold or make appropriate adjustments to the Trade Subcontractor's monthly progress billing in the event the commissioning information or performance requirements as described in the Waterproofing Quality Commissioning Procedures & Guidelines are not being performed, managed and updated by the Trade Subcontractor.

11.0 Trade Subcontractor Commissioning Submittal Requirement

Each Trade Subcontractor has a responsibility to WEBCOR/OBAYASHI and the Building Owner to comply with the terms of the contract and to verify that the design intent of the waterproofing systems for the project is achieved.

Each Trade Subcontractor is required to provide two completed commissioning manuals containing the information outlined in Section 19 - Commissioning Binder Tab Index of this guideline. Each proposed formatted “3-ring” binder containing all information, including blank forms shall be provided to WEBCOR/OBAYASHI and the Owner for **“review and comment”** before the commissioning process begins, or by an agreed upon date.

WEBCOR/OBAYASHI, the Owner and the owner representative shall review the information and return it to the Trade Subcontractor within **two-week** time with all comments.

Each Trade Subcontractor shall make all required changes as agreed, to the commissioning manuals and resubmit them to WEBCOR/OBAYASHI within **two-weeks**.

Each Trade Subcontractor shall schedule and provide a formal demonstration of their commissioning process to WEBCOR/OBAYASHI, the Owner and the Owners representative after all required changes to the manuals have been satisfactory completed. Demonstration shall indicate compliance with the Trade Subcontractor Waterproofing Commissioning requirements as outlined in this document.

Each Commissioning Manual **shall be neatly organized** using appropriate tabs, dividers, table of content, index, etc. as required for easy referencing. Refer to Section 19 Commissioning Binder Tab Index for a standard binder organization. All Commissioning Manual(s) **must be user friendly**.

12.0 Commissioning Binder Tab Index

Tab 1. **Project design criteria specifications –** Provide information that describes the overall design criteria and performance requirements for the waterproofing system(s).

Tab 2. **Manufacture products and components** – Provide complete submittal list of all components that shall be contractually provided and installed.

Tab 3. **Manufacture installation instructions –** Provide manufacture documentation insuring that the system and components installation complies with all Manufacture requirements to maintain performance and guarantee obligations.

Tab 4. **Manufacture details –** Provide manufacture details or published industry standards for penetrations and terminations interfacing with other installed systems.

Tab 5. **Design transition review –** Provide design review comments and concerns on transition interfaces to other s or other compatibility issues.

Tab 6. **Quality Assurance / Quality Control Program –** Provide QAQC program with complete field inspections and checklists.

Tab 7. **Documentation –** Trade Subcontractor shall maintain a separate field binder documenting the QAQC inspections and field-testing for all installed work.

Tab 8. **Field mock-up and testing –** Provide information on mock-up or field performance tests that shall be preformed for all installed system(s). Provide manufacture recommendations or published testing standards used. If no performance testing is preformed, Trade Subcontractor shall provide documentation on how each system is performing in accordance to the documented design intent and contract warranty requirements.

Tab 9. **Schedule –** Provide schedule for, shop drawing devolvement, submittals fabrication, delivery and installation.

Tab 10. **Agency and factory test reports –** Provide all factory, agency, and field performance-testing reports on installed systems.

Tab 11. **Factory and Trade Subcontractor guarantee information –** Provide warranty responsibilities and durations for all systems and components installed.

Tab 12. **Owner Training –** Provide (O&M) and training for all required service and maintenance requirements as it extends throughout each system to maintain warranty. Include owner sign-off sheets verifying training.

Tab 13. **Attic Stock –** Provide list of spare material that shall be supplied by Trade Subcontractor to owner – Paint, applied materials, gaskets, handles, glazing, or patching products.

Tab 14. **As-Built Drawings –** Provide completed set of drawing and details accurately reflecting all installed and completed work.

Tab 15. **Material Safety Data Sheets –** Provide all Material and Data Safety Sheets (MSDS).

13.0 Identifying the Defects

It is the intent of the commissioning process to avoid defects in waterproofing systems. A standard of care exhibited during the commissioning process should anticipate potential defects and determine appropriate solutions prior to the installation of these systems. In the event that defects do occur, proper defect identification will help determine the repair needed and assist in selecting the appropriate method and materials.

It is important to acknowledge which factors have caused deficiencies in the waterproofing system and its components, and how a deficiency in one system may influence or amplify another. Careful and thorough defect identification is critical to obtain long-lasting, quality repairs. It is critical and necessary to eliminate the cause of the defect and not solely treat the symptom.

Each Trade Subcontractor shall be responsible for determining the cause and origin of various problems as it pertains to their contractual scope of work. Failure to do so may require Trade Subcontractor to assume all related costs and expenses for damages, repairs performed by others, testing, special inspections, and consultant fees.

14.0 Applicable Industry Standards

Unless the Contract Documents include more stringent requirements, applicable published construction industry standards shall be utilized. Where compliance with two or more standards is specified for quality or quantity levels, comply with the most stringent requirement.
Where sections of the specifications require that a product, material, installation, or test complies with a specified industry standard, the Trade Subcontractor shall obtain copies directly from the publication(s) source and include the information in the submitted commissioning information.

Each Trade Subcontractor engaged in construction on the project must be familiar with published industry standards applicable to their construction activity.

15.0 Schedules

An initial schedule shall be developed by the Trade Subcontractor identifying dates, times, and durations for shop drawings, approval of submittals, material fabrication, product delivery, acceptance, installation, testing and completion.

The schedule shall also include any commissioning task that shall be performed on waterproofing systems that may involve or affect other related building systems.

Each Trade Subcontractor shall update schedules, daily, weekly, monthly, or as required to keep WEBCOR/OBAYASHI and the Owner informed of the activities performed. This schedule will indicate appropriate milestones during the installation to allow WEBCOR/OBAYASHI and or the Owner the ability to observer and witness system installations prior to being cover up by subsequent s. The schedule will indicate milestone dates for Trade Subcontractor inspection and testing.

16.0 Execution of Inspections and Checklists

Trade Subcontractor and or vendors shall schedule initial inspections and checklist review with the commissioning team. The inspections and reviews shall be directed, executed, and documented by the Trade Subcontractor or vendor.

To document the process, the Trade Subcontractor performing the task shall provide and complete all documentation forms and checklists. (See attached sample checklist)

17.0 Field Inspections

One of the most important commissioning activities for waterproofing systems is field inspections. The field inspection process shall serve as a method and means of documenting the installation process as well as indicate variations between contractual design and construction.

Each Trade Subcontractor shall identify in detail the scope of their field inspections, and the types of field procedures that will be required to obtain the necessary information to provide a complete waterproofing quality control evaluation at the completion of the job.

18.0 Field Witnessing of Trade Subcontractor's Quality Control

WEBCOR/OBAYASHI, the Owner, consultants and the Architect reserve the right to witness the waterproofing system installation at any time. Spot checks shall be conducted on a random basis. If inconsistencies are discovered in quality, performance, or if commissioning information differs from those submitted, the Trade Subcontractor may be required to completely remove and remedy all conditions where the inconsistencies occurred at no additional cost or impact to the schedule.

Witnessing shall include all or part of, but not limited to the following:

14.1 Mock ups

14.2 Waterproofing component and system installation

14.3 System inspection and checks

14.4 Performance tests

14.5 Special Inspections

19.0 Documentation

Trade Subcontractor shall maintain a separate field binder documenting quality control inspections and field-testing for all installed work. Documentation shall include dates, quality control field checklist, reports with inspected locations defined by grid lines and elevations. Provide a dated photo log, documenting inspected areas and general sequence of installed work for the duration of the project.

20.0 Testing and Methods

The objective of field-testing is to correlate paths of moisture infiltration and to observe the source of damages. Moisture entering a building during extreme weather may be obvious, but the most reliable method to discover the infiltrating path is to recreate the leakage condition in a controlled manner. Testing also allows verification of the theory for the cause of leakage.

As all system and component tests are unique to some degree, there may not be one standard or method for testing that can be applied to all. There are several methods, standards, governing requirements, and manufacture recommendations, etc., which should be applied.

There are three types of acceptable testing methods that can be used during the investigation. All of which must be approved by WEBCOR/OBAYASHI. These testing categories include:

- ✓ Non-Destructive Testing
- ✓ Destructive Testing
- ✓ Laboratory Testing

20.1 Non-Destructive Testing

Non-destructive testing uses a variety of non-invasive tools. This type of testing causes little or no damage or interference to the building envelope. The various methods of non-destructive testing include:

a. *Rilem Tube* - This calibrated device is adhered to exterior masonry walls to determine the porosity and condition of brick masonry units, mortar joints, head joints, and embedment joints.

b. *Water Spray Rack (ASTM E1105)* - This test simulates a wind-driven rain condition on a facility. It can assist in determining the specific cause and origin of moisture infiltration when it is used to test independent components of the envelope. Spraying water over a large area in an uncontrolled fashion will not reveal specific causes of water infiltration.

c. *Hose Spray Test (AAMA 501.2)* - This test method also simulates wind-driven rain in small segmented areas using a standard garden hose in which a calibrated nozzle is attached with a pressure gauge. The spray is

directed at a specific joint, crack, or defect to reveal potential moisture intrusion.

d. *Differential Pressure Test (ASTM E1105)* - A pressure chamber is constructed on the interior of the facility at a specific location to test moisture driven through an assembly or component. The assembly or component is subjected to a negative force while simultaneously a spray rack is directed at the assembly to draw the moisture into the facility to simulate a negative pressure under a wind-driven rain condition.

e. *Infra-Red Thermography* - Infra-red Thermography photographs the building exterior to determine the locations of wet components. Components, such as insulation and sheathing, etc., will act as heat sinks if they contain high levels of moisture. During the day, moist and dry components absorb heat. At night, the moist areas release the heat much slower than the dry areas. By reading the heat signature, Infrared Thermography will help expose the problem areas. Small test cuts may be required to verify moisture areas.

f. *Soundings (ASTM D4580)* - There are different ways to perform sounding tests including the hammer tap test. In this test, a 16 oz. hammer is tapped against concrete for sound. A hollow sound indicates areas where the concrete has separated from the reinforcing steel, typically due to exfoliation or corrosion of the steel. Another method of sounding is to chain drag a heavy 15 ft. link chain along a concrete surface to listen for hollow sounds, indicating defective concrete. This method can cover larger areas effectively and is commonly used on parking garages and loading docks.

g. *Pachometer Survey* - This test uses a magnetic device used to locate embedded steel reinforcement and help determine the concrete cover over the reinforcement. Generally, the Pachometer is fairly accurate when measuring ¼ inch to 3-inch thick concrete cover and when reinforcing placement is not too congested.

h. *Poly-sheet Tape-down* - This test determines the presence of moisture coming through a concrete surface, typically a slab-on-grade type of assembly where the typical problem is tile or membrane separation from the floor. A 2’ x 2’ section of polyethylene is sealed to the concrete with duct tape and removed 24 hours later. If there is moisture beneath the polyethylene, it is a good indication that there is a vapor drive through the concrete section.

i. *Glass-Slide Epoxy or Crack-o-meter* - This device is sealed in place over a crack and periodically checked to determine if any movement has occurred. If movement has occurred, the glass will crack or the meter will record movement.

j. *Optical Illuminated Boroscope* - A boroscope is inserted into a 5/8-in. diameter pilot hole through an exterior wall system and allows the cavity walls of brick veneer, stud wall backup of exterior insulated finish systems (EIFS), or other types of constructions to be observed without large-scale destructive testing.

k. *Smoke/Dust Tracer* - The smoke/dust tracer helps to find air infiltration. It is moved across the interior face of a window to observe the smoke and dust particles coming through the assembly.

l. *Moisture Meter* - A Delmhorst meter is a digital device that detects the presence of moisture in various building components. This test is typically accompanied by a gravimetric analysis (oven drying of samples), which is used to confirm the results of the Delmhorst meter.

m. *Flashlight and mirror* - These simple tools can be very useful to detect problem areas. Placing the mirror into the plenum or behind difficult-to-access areas with the flashlight will allow observation of concealed conditions.

20.2 Destructive Testing

When the main objective is to determine the existing composition and configuration of concealed assembly conditions, destructive testing may be warranted. The most common methods of destructive testing are test cuts and borings.

Any type of destructive testing must be reviewed and approved by WEBCOR/OBAYASHI.

a. *Roof Testing* - Test cuts in the roof assembly may be necessary to determine the condition of the underlying insulation and substrate. Cutting into the system may help verify whether roofing problems are causing corrosion of the steel deck, or a spalled and cracked concrete deck, etc. Test cuts may also expose the as-built configurations of the flashing components at roof-to-wall locations, curb locations, etc. This information is critical to the appropriate remedial design and/or repairs.

b. *Exterior Wall/Skin Testing* - Test cuts on exterior walls may be required to identify the origin of moisture infiltration. For masonry walls, it is most effective to make test cuts at window heads and sills, and at any through-wall flashing locations that may be suspected of allowing moisture intrusion. Masonry test cuts may expose defective through-wall flashing that is allowing moisture intrusion. Test cuts may also help determine the underlying conditions of the steel components in wall systems, including wall ties, reinforcing steel, sub-steel columns, etc.

20.3 Laboratory Testing

Destructive testing is also used to obtain samples for lab analysis. Samples of sealants, coatings, painted finishes, roofing materials, etc. can be sent to a laboratory to determine the presence of lead or asbestos. Samples of masonry or concrete can also be tested to help identify causes of moisture/air infiltration (descriptions of these analyses follow).

Laboratory testing may help obtain a better understanding of existing material types, presence of contaminants, and the possibility of hazardous components.

This type of testing can also provide valuable information concerning proper surface preparation, material selection, and implementation of repairs.
The following laboratory tests are some of the more useful when performing building envelope evaluations:

a. *Gravimetric Analysis* - This test will determine moisture content. After weighing and recording the in-situ existing sample, completely dry the sample in an oven and re-weigh it. The weight difference indicates moisture content and is particularly useful for insulating materials. Testing moisture contents of samples is critical to verify results from non-destructive moisture scans.

b. *Petrography* - Petrography determines the "make-up" of concrete. This test will indicate the size and type of aggregate, air/void ratio, type of cement, and general mix design data of the concrete. Most materials testing lab can perform this test.

c. *Air Entrainment* - Provides an indication of the existing concrete's durability and freeze-thaw resistance. Air entrainment is generally indicated by petrography.

d. *Presence of Carbonization* - Accomplished by spraying a solution of phenothelene on the concrete substrate and recording the depth of the solution's color change. This will indicate to what depth carbon dioxide has progressed into the concrete. Carbon dioxide will degrade the cement matrix of the concrete and lower the pH level of it. The layer surrounding the reinforcement is then destroyed, allowing corrosion of the reinforcing steel. Corrosion by carbonization usually occurs over a broad area.

e. *Chloride Ion Content* - Chlorides from marine atmospheres or mists from road salts entering the concrete substrate, and salts originally introduced to the concrete via admixtures or aggregates can promote accelerated corrosion of reinforcing steel, usually at concentrated or specific locations. The chlorides are not consumed in the corrosion process but rather act as catalysts in the process. The corrosion will progress along the reinforcing bars causing concrete de-bonding, cracking, and spalling.

f. *Reinforcement Placement, Depth, Quantity, and Type* - This information may be established with the use of a Pachometer or similar electronic metal detector. It is useful in determining required steel replacement and structural capacities during engineering analysis phases.

21.0 Engineering Analysis

Using information obtained from the field, laboratory results, and collected data, a comprehensive engineering analysis may be required. The engineering analysis should include an assessment of field and laboratory data, structural analysis as well as the following:

- ✓ Thermal Analysis
- ✓ Drainage Analysis

- ✓ Vapor Drive Analysis
- ✓ Fire Rating Requirements
- ✓ Cost Estimations

22.0 Deficiencies and Non-Conformance

The Trade Subcontractor shall identify and list any outstanding deficiencies or procedures that were not completed successfully during any final testing. Documented deficiencies shall be submitted to WEBCOR/OBAYASHI within 48 hours of each test completion.

The Trade Subcontractor shall also provide in writing, the corrective action for each deficiency as required within 48 hours. The installing Trade Subcontractor and or vendor shall correct all outstanding issues or deficiencies in the materials or the installation of the materials and provide the commissioning team with dates and times for the required corrections and any re-testing.

23.0 Remedial Work

General considerations for the repair of defects and replacement of components should include the following:

23.1 Determine the effect, if any; the repairs have on the structure, surroundings, and operations of the building.

23.2 Ensure proper preparation of surfaces to be repaired and provide chemical and mechanical bonds for new materials.

23.3 Material selection should include an understanding of performance limitations and should rely on the products past acceptable performance. Material selections should include consideration of the following:

- ✓ Compatibility
- ✓ Maintenance
- ✓ Life cycle

24.0 Project Commissioning Closeout

WEBCOR/OBAYASHI, the Owner, and/or the Owner's representative shall determine when the Trade Subcontractor commissioning process has been satisfactorily completed and when to submit the final report information and all other documentation to Webcor.

As part of the project turnover, the quality of all work will be reviewed to determine whether it is within specific and manufacturers' guidelines, industry standards, and code compliance.

WEBCOR/OBAYASHI, the Owner, and/or the Owner's representative consultant must be completely satisfied that the commissioning procedures have been performed accurately and professionally.

In the event the commissioning information or performance requirements outlined in the Waterproofing Quality Commissioning Procedure & Guidelines have not been met, WEBCOR/OBAYASHI may elect to withhold or make appropriate adjustments to the Trade Subcontractor's final billing.