

**THIS STAFF REPORT COVERS CALENDAR ITEM NO.: 7.2
FOR THE MEETING OF: November 1, 2010**

TRANSBAY JOINT POWERS AUTHORITY

BRIEF DESCRIPTION:

Authorizing the Executive Director to issue a Joint Trench Authorization Letter and enter into a Construction Cost Agreement (Agreement) between the Transbay Joint Powers Authority (TJPA), Pacific Gas and Electric (PG&E), and AT&T to construct a joint utility trench in Minna Street from First Street to Second Street (Joint Trench).

Under the Agreement, the TJPA would construct a Joint Trench for gas, power, and telecommunications substructures on behalf of PG&E and AT&T. PG&E and AT&T would reimburse the TJPA for their proportionate share of the cost of the work, as described in the Agreement.

Joint Trench improvements are included in Trade Group 4.5.1, which was approved by the TJPA Board on October 14, 2010. The work is scheduled to begin in December 2010.

SUMMARY:

The TJPA has prepared engineering plans for the relocation of utilities as part of the Transbay Transit Center Program. To facilitate the relocation of utilities along Minna Street, the TJPA intends to construct a Joint Trench along Minna Street, between First and Second streets. The proposed Joint Trench will include gas, power and telecommunications substructures, as well as new electrical services for the Transbay Transit Center.

The TJPA has completed engineering, design, and estimating of the Joint Trench. On October 14, 2010, the TJPA Board of Directors authorized the CM/GC to enter into a subcontract with Trinet Construction Incorporated for Minna Street utility demolition and construction. The total value of this construction subcontract is \$4,796,301, of which, the Joint Trench construction costs total \$1,177,811, including design and construction administration costs.

Staff has negotiated a Construction Cost Agreement with PG&E and AT&T that allocates costs among each Joint Trench occupant. The proportionate share for each Joint Trench occupant is as follows:

- 30% PG&E Electrical
- 30% TJPA Electrical (for new electrical service ducts serving the Transit Center)
- 19% PG&E Gas
- 21% AT&T Telecom

RECOMMENDATION:

Staff recommends that the Board authorize the Executive Director to issue the Joint Trench Authorization Letter and enter into the Joint Trench Construction Cost Agreement with PG&E and AT&T in substantially the form attached to this report.

ENCLOSURES:

1. Resolution
2. Joint Trench Authorization Letter
3. Joint Trench Construction Cost Agreement

**TRANSBAY JOINT POWERS AUTHORITY
BOARD OF DIRECTORS**

Resolution No. _____

WHEREAS, The Transbay Transit Center Program (Program) requires the relocation of public and private utilities within the streets adjacent to the Transit Center; and

WHEREAS, The TJPA has contracted with a qualified engineering and design company to prepare plans for the relocation of utilities as part of the Program; and

WHEREAS, The TJPA has contracted with a construction manager/general contractor (CM/GC) to manage the bidding and the relocation of utilities required for the Program; and

WHEREAS, PG&E owns and manages gas and electrical infrastructure in the streets adjacent to the Transit Center, including Minna Street, between First and Second streets; and

WHEREAS, AT&T owns and manages certain telecommunication infrastructure in the streets adjacent to the Transit Center, including Minna Street, between First and Second streets; and

WHEREAS, The TJPA determined that the construction of a new joint utility trench, comprising PG&E gas, PG&E electrical, and AT&T telecom, as well as electrical service ducts serving the new Transit Center, would be the most cost effective and least impactful means of relocating dry utilities in Minna Street (Joint Trench); and

WHEREAS, The TJPA prepared detailed plans, specifications and cost allocations for the construction of the Joint Trench under CM/GC Trade Group 4.5.1; and

WHEREAS, Staff has negotiated a Joint Trench Construction Cost Agreement with PG&E and AT&T that allocates each trench occupant's proportionate share of the cost to install the Joint Trench; and

WHEREAS, Under the Joint Trench Construction Cost Agreement, PG&E and AT&T will pay their proportionate share of the Joint Trench construction, design, and construction administration costs; now, therefore, be it

RESOLVED, That the TJPA Board of Directors authorizes the Executive Director to issue a Joint Trench Authorization Letter and enter into a Joint Trench Construction Cost Agreement with PG&E and AT&T to construct a Joint Trench along Minna Street in substantially the form attached hereto.

I hereby certify that the foregoing resolution was adopted by the Transbay Joint Powers Authority Board of Directors at its meeting of November 1, 2010.

Secretary, Transbay Joint Powers Authority

November 1, 2010

John Wharton
Manager, Service Planning and Estimating
Pacific Gas and Electric Company
2180 Harrison Street, Room 245
San Francisco, CA 94110

Keith M. Davey
Area Manager, Engineering
AT&T
795 Folsom Street, Room 426
San Francisco, CA 94107

Subject: Transbay Transit Center Program
Joint Trench Authorization Letter

Dear Mr. Wharton and Mr. Davey,

The purpose of this letter is to establish an agreement between the Transbay Joint Powers Authority (TJPA), Pacific Gas and Electric (PG&E), and AT&T to construct a joint utility trench in Minna Street from First Street to Second Street (Joint Trench).

Pursuant to this agreement, the TJPA has contracted with Webcor/Obayashi, Joint Venture, (CM/GC) to install Joint Trench substructures on behalf of PG&E and AT&T. On October 14, 2010, the TJPA Board of Directors authorized the CM/GC to enter into a subcontract with Trinet Construction Incorporated (Trinet) for Minna Street Utility Demolition, Installation of Water, Sewer, and Joint Trench for gas, electrical, and telecommunications. The total value of this construction subcontract is \$4,796,301, of which, the Joint Trench construction costs total \$1,177,811, including design and construction administration costs.

Construction plans and technical specifications have been prepared by the TJPA's utility relocation design consultant, AECOM, and are included in the CM/GC's bid package TG04.5.1 (Plans & Specifications). Enclosed are (1) the Plans & Specifications, (2) Joint Trench Composite Drawings (Composite Drawings), (3) the Joint Trench Form B, Construction Cost Agreement (Form B), prepared in accordance with PG&E's Joint Trench Attachment 1, Detailed Procedures – UO Standard S5453 (Cost Agreement), and (4) the Trinet bid for TG04.5.1.

The General Conditions and Authorization of Costs Allocations associated with this agreement are as follows:

General Conditions

1) Delineation of Work:

- a) The TJPA (including its contractor and subcontractors) will:
 - i) Construct the Joint Trench, including single occupancy trenches as indicated on the Composite Drawings and Plans & Specifications.
 - ii) Furnish and install conduits, manholes, and related appurtenances as indicated on the Composite Drawings and Plans & Specifications.
 - iii) Backfill and restore trench excavations.
 - iv) Coordinate the construction schedule.
 - v) Invoice PG&E and AT&T for their respective portions of the Joint Trench costs, consistent with the Cost Agreement.
 - vi) Provide as-built drawings to PG&E and AT&T.

- b) AT&T and PG&E will:
 - i) Perform work indicated on the Composite Drawings and Plans & Specifications involving the connection of installed utility systems to occupants' operating facilities (i.e., additional duct bank(s), pipes, manholes, vaults, services, etc.).
 - ii) Inspect and approve all work performed by the TJPA described on the Composite Drawings and Plans & Specifications within 10 days after TJPA completion; such inspection and approval shall not be unreasonably withheld.
 - iii) Make payments within 45 days after receipt of invoice from the TJPA, consistent with the Cost Agreement.

Authorization of Cost Allocations

1) Costs:

- a) Construction costs for the Joint Trench will be \$1,177,811. PG&E and AT&T have reviewed the construction cost and determined it is not excessive; PG&E and AT&T will not elect to perform their own portion of trenching and substructure installation.
- b) Allocation of the Joint Trench costs will be based on the percentages as determined in the attached Cost Agreement: (30% PG&E Electric, 30% TJPA Electric [PG&E/TJPA costs for electric are apportioned commensurate with occupancy percentage in accordance with PG&E's new business tariffs], 19% PG&E Gas, and 21% AT&T Telecom).
- c) In the event that a change order is warranted and granted, change order costs will be allocated in accordance with the percentages prescribed in the Cost Agreement associated with the Trench Section (location) the change affects. TJPA will notify PG&E and AT&T in advance of any proposed change order. PG&E and AT&T must agree to the scope and cost of any change order; approval of any change order will not be unreasonably withheld.
- d) PG&E and AT&T bear sole responsibility for the cost to perform the work indicated on the Composite Drawings and Plans & Specifications involving the connection of installed utility systems to occupants' operating facilities.
- e) Total Costs include:
 - i) Joint Trench construction
 - ii) Joint Trench design and construction administration
 - iii) Construction change orders (if applicable)

2) Processing and Billing:

- a) The TJPA will invoice PG&E and AT&T for their respective shares of the total costs based on the following schedule:
 - i) 50% of PG&E's and AT&T's proportionate shares of the cost of Joint Trench construction (the total bid cost) will be invoiced following the TJPA's contract award and issuance of notice to proceed for TG04.5.1.
 - ii) PG&E's and AT&T's remaining proportionate shares of the cost of Joint Trench construction (the total bid cost), as well as the total amount of PG&E's and AT&T's proportionate shares of the cost of Joint Trench design, construction administration and construction change order costs will be invoiced following PG&E's and AT&T's inspection and acceptance of the work.

3) Guarantees and Warranty:

In accordance with "General Terms and Conditions for Gas and Electric Extension and Service Construction by Applicant."

By signing below, PG&E and AT&T agree to the General Conditions and Authorization of Costs described above, as well as the Plans & Specifications, Composite Drawings, Cost Agreement, Trinet bid for TG04.5.1, and General Terms and Conditions enclosed herewith.

Sincerely,

Maria Ayerdi-Kaplan
Executive Director

Enclosures:

- (1) Joint Trench Composite Drawings – September 9, 2010
- (2) Joint Trench Form B, Construction Cost Agreement – September 13, 2010
- (3) TG04.5.1 Issued for Construction Plans and Specifications – September 29, 2010
- (4) General Terms and Conditions for Gas and Electrical Extension and Service Construction by Applicant
- (5) Trinet bid for TG04.5.1

By hand delivery

AUTHORIZATION:

PG&E Electric

John Wharton
Manager, Service Planning and Estimating

Date _____

PG&E Gas

John Wharton
Manager, Service Planning and Estimating

Date _____

AT&T

Keith Davey
Area Manager, Engineering

Date _____



Pacific Gas & Electric Company

***GENERAL TERMS AND CONDITIONS
FOR GAS AND ELECTRIC EXTENSION AND
SERVICE CONSTRUCTION BY APPLICANT**

REFERENCES:

SUBMITTED TO APPLICANT BY:

**GENERAL TERMS AND CONDITIONS
FOR GAS AND ELECTRIC EXTENSION AND SERVICE
CONSTRUCTION BY APPLICANT**

**GENERAL TERMS AND CONDITIONS
TABLE OF CONTENTS**

	<u>PAGE</u>
<i>A. APPLICABILITY</i>	3
<i>B. DEFINITIONS</i>	3
<i>C. RESPONSIBILITIES</i>	5
1. <i>PROJECT INITIATION AND ENGINEERING</i>	5
2. <i>MATERIALS</i>	6
3. <i>PAYMENTS</i>	8
4. <i>PERMITS, LICENSES AND SPECIAL INSPECTION</i>	8
5. <i>CONSTRUCTION</i>	9
6. <i>CHANGES AND EXTRA WORK</i>	11
7. <i>INSPECTION</i>	11
8. <i>DOCUMENTATION AND AS-BUILT DRAWINGS</i>	12
9. <i>FINAL ACCEPTANCE AND CONVEYANCE</i>	13
10. <i>PARTIAL USE OF FACILITIES</i>	13
<i>D. CONTRACTORS AND SUBCONTRACTORS</i>	14
<i>E. INSURANCE</i>	14
<i>F. INDEMNITY AND WITHHOLDING</i>	15
<i>G. GUARANTEES AND EQUIPMENT WARRANTY</i>	15
<i>H. INTERPRETATION OF THE AGREEMENT</i>	16
<i>I. CONFLICTS</i>	16
<i>J. CLAIMS SETTLEMENT, DISPUTES</i>	17
<i>K. LEGAL REQUIREMENTS</i>	17
<i>L. RIGHTS OF PG&E</i>	18
<i>M. RIGHT TO SUSPEND WORK</i>	18
<i>N. COMPLIANCE WITH LAWS AND REGULATIONS</i>	19
<i>O. FEDERAL EQUAL OPPORTUNITY LAWS</i>	19

**GENERAL TERMS AND CONDITIONS
FOR GAS AND ELECTRIC EXTENSION AND SERVICE
CONSTRUCTION BY APPLICANT**

A. APPLICABILITY

These general terms and conditions apply where the Applicant proposes to install new gas or electric facilities for new business utility service under the provisions of the Gas and Electric Rules as filed with the California Public Utilities Commission.

The attached specific terms and conditions and applicable Drawings shall supplement these general terms and conditions. The Applicant shall ensure that their selected Contractors and Subcontractors conform to all PG&E requirements as stated in the applicable rules, these general terms and conditions, the supplemental specific terms and conditions and all applicable Drawings.

B. DEFINITIONS

The following words and their definitions are provided for uniformity and clarity between PG&E, the Applicant and the Applicant's Contractor or Subcontractors.

1. Agreement: This term includes, but is not limited to, the project specific Agreement, these general terms and conditions, specific conditions, standard Drawings, construction Drawings, appendices and any associated bonds, together with any other written documentation between PG&E and the Applicant (including CPUC authorized tariffs specifically incorporated therein by direct reference or otherwise).
2. Applicant: The developer or party entering into an Agreement with PG&E for the installation of gas or electric facilities.
3. Applicant's Statement of Costs: Form # 79-1003. A statement of Applicant's Contract Anticipated Costs supplied by the Applicant and verified under penalty of perjury by Applicant. These costs shall be used by PG&E as the exclusive determinant of Applicant's refundable costs for the work normally provided by PG&E, as specified in Gas & Electric Rules 15.G.1.b, to determine the lower of PG&E's or Applicant's costs, which will be subject to the allowances and refund provisions of Gas and Electric Rules 15 & 16
4. As-Built: A required Drawing by Applicant clearly showing all installed facilities prepared upon completion of project. This may include, but is not limited to the distribution and service facilities installed.
5. Authorization Joint Trench Construction (Form B): A billing breakdown prepared at the Applicant's expense by either the Applicant or PG&E in conjunction with the Composite Drawings for the various trench occupants by footage. See Exhibit I for sample Form B.
6. Change Order: Authorization to add, delete or change Work. PG&E's Change Order form provides a description of additional Work and authorization to perform or delete such Work as agreed to by Applicant and PG&E. See Exhibit III for sample Change Order.
7. Composite: A Drawing prepared at Applicant's expense by either the Applicant or PG&E (if PG&E agrees and labor is available). This Drawing delineates by measurement, the trench route and location from adjacent property lines or fixed objects, the size for each trench section (width, depth and length), the location and size of all substructures and the various cross-sectional Trench Configurations, showing size and number of buried facilities for each trench occupant.

8. Contractor: The Applicant's agent who enters into a contractual agreement with the Applicant for the installation of the specified gas or electric facilities. All obligations of the Applicant as specified in this Agreement shall also apply to the Contractor.
9. Distribution Trench: A trench to be utilized for distribution and feeder facilities that is intended to serve more than one building, customer or parcel. Such a trench may also contain gas service pipes and conduits or conductors for serving a single customer or street lights. The term distribution trench shall also include those trenches designated by the telephone utility as "Common Service Connection Trenches." A distribution trench will normally be located in a (a) private utility right-of-way and easement, (b) dedicated public utility easement or (c) other thoroughfare under permit which will be superseded by the utility franchise right.
10. Drawings:
Standard Drawings
Drawings prepared by PG&E depicting PG&E requirements for design, construction, operation and maintenance of its operating facilities.
 - PG&E electric standard Drawings
 - PG&E gas standard Drawings
 - PG&E electric design standard DrawingsConstruction Drawings
A Drawing(s) depicting the site specific requirements for a defined utility extension and service project.
 - Composite Drawing
 - Gas and electric site construction Drawings(s) that provide a layout of proposed Work in sufficient detail to allow the Applicant to plan and perform the Work.
 - Gas Service Orders
11. Intent: Notice of Intention to Construct Underground Facilities (Form A): The Intent shall notify and advise other agencies that trench Work is proposed in a particular area, and provides an invitation to other potential occupants to share the benefits and costs of joint trench construction. See Exhibit II for sample Form A.
12. Land Rights: Any legal right of a person, corporation (utility) etc., to use another's land. Such Land Rights will usually be in the form of a: (a) private right-of-way and easement; (b) dedicated public utility easement; (c) franchise rights; or, (d) permit (license) and lease agreement.
13. Material Suppliers: Those vendors, suppliers and manufacturers who have been qualified by PG&E to supply material according to PG&E specifications.
14. PG&E: Pacific Gas & Electric Company acting through its authorized representative(s).
15. Permit: A written Agreement or license for Work, granted by the agency having authority.
16. Service Trench: A trench which extends from a distribution trench to an Applicant's building or service termination point. Such a trench may be designated as a "Separate Service Connection Trench" by telephone.
17. Subcontractor: The party or parties or another entering into a contractual agreement with the Applicant's Contractor or another Subcontractor for the installation of a portion of the specified gas or electric facilities. The obligations, where set forth in this Agreement, shall also apply to Subcontractors regardless of level or tier.

18. Superintendent: Applicant's field representative to whom PG&E and the Applicant make known decisions, instructions and interpretations. Notices given the Superintendent shall be deemed notices given to the Applicant.
19. Trench Configuration: The cross-sectional trench design specified to provide trench occupants with facility clearance and cover requirements.
20. Trench Layout: Preliminary design showing joint trench route submitted with an Intent.
21. Utilities: Agencies, public or private, which install, own, and operate utility facilities intended for general public, municipal or private use.
22. Work: All labor, materials, equipment and any other job requirements related to the attached specification and Drawings.

C. RESPONSIBILITIES

1. PROJECT INITIATION AND ENGINEERING	APPLICANT	PG&E
a. Applicant will submit gas and electric loads, plans and Drawings and other information as required by PG&E. Applicant must also submit an executed "Statement of Applicant's Contract Anticipated Costs," - Form # 79-1003, upon receipt of PG&E's estimated costs.	◆	
	◆	
b. PG&E shall furnish to the Applicant, in a timely manner, the following (where applicable); <ol style="list-style-type: none"> 1. For underground facilities, separate preliminary gas and electric engineering sketches indicating the trench design and the approximate routing of facilities. These sketches are for design purposes only and are not intended to be used for construction. 2. For overhead facilities, site Construction Drawing(s) and specifications for the Work. The site Construction Drawings will augment the standard Drawings and specifications contained herein and are to be part of this Agreement. 		◆
c. For underground facilities, the Applicant shall contact all other potential trench occupants (telephone, cable TV, and etc.) with an Intent (Form A), to use the proposed joint utility trench. ¹ The Intent shall include, but is not limited to, a sketch and trench/excavation cost breakdown. Cost breakdowns shall be as required on the attached Form B	◆	
d. For overhead facilities, PG&E shall contact other Utilities for Intent to use the proposed overhead facilities.		◆
e. For underground facilities, the Applicant shall provide PG&E a Composite Drawing delineating the cross-sectional facility configuration of all trench occupants and the intended size of their facilities. ²	◆	
f. PG&E will review Applicant's Composite Drawings. Approval will be granted if the Composite Drawings meet all the necessary requirements.		◆

¹ At Applicant's request and non-refundable expense, if PG&E has available estimating labor, PG&E may agree to prepare the Composite Drawing, coordinate the Intent process with other potential trench occupants and provide estimated trench/excavation cost breakdowns.

1. PROJECT INITIATION AND ENGINEERING (Continued)	APPLICANT	PG&E
g. Upon receipt of the Applicant's approved Composite Drawings, PG&E shall prepare any site Construction Drawing(s) and specifications for the Work. The site Construction Drawings will augment the Standard Drawings and specifications contained herein and are to be part of this Agreement.		◆
h. If the Applicant elects to perform the gas service installation, it shall be PG&E's responsibility to provide "gas service orders" to the Applicant. The service orders must be returned to PG&E with As-Built correction prior to acceptance and pressurization of the gas services.		◆

2. ² MATERIALS	APPLICANT	PG&E
a. The Applicant shall determine the material requirements from the approved Drawings. Quantities for individual assemblies (e.g., pole structures, gas meter risers, and etc.) shall be determined from the applicable standard Drawings. The Applicant is responsible for the determination of accurate distance requirements resulting from terrain variations, electric cable slack requirements, gas line, cable termination requirements, and etc.. PG&E assumes no responsibility for the stated distance quantities and will not honor claims arising from a difference between these quantities and what is required for the Work.	◆	
b. At Applicant's request and at PG&E's option, PG&E will provide a Material Summary sheet identifying the materials and quantities for the project. The material summary is intended to include most major materials and some minor materials for the job. The summary is furnished solely as a convenience for compiling a list of anticipated construction materials and does not necessarily include all materials which may ultimately be necessary for your job. Material codes, if identified, are PG&E's company assemblies that may be available from approved vendors only as individual components. It is emphasized that applicants bear the ultimate responsibility to ensure that all materials necessary to construct their project are ordered using the APPROVED construction Drawing(s) and engineering standards furnished by PG&E.		◆
c. PG&E shall provide the Applicant a list of approved Material Suppliers for the Applicant's procurement of material.		◆
d. The Applicant shall only solicit material bids from the list of approved Material Suppliers. Materials acquired from vendors who are not on the approved supplier list will not be accepted.	◆	

² Specific items of purchase may require in-plant inspections by PG&E prior to shipment to a job site. Any item designated within PG&E's specifications by brand name shall be as designated. Requests by the Applicant for an "approved equivalent" for such items shall be granted in writing by PG&E only if PG&E has determined that the specified material is not available. In any case, the decision of PG&E will be final. PG&E will not honor any claim arising from approvals or rejections of requests for "approved equivalent" items. Furnishing or installing, or both, of such an item shall be in accordance with the manufacturer's recommendations and specifications except as they may be modified by PG&E standards and specifications.

2. MATERIALS (Continued)	APPLICANT	PG&E
e. The Applicant shall be responsible for: (1) procurement of all materials in accordance with PG&E requirements from PG&E-approved Material Suppliers (2) material storage and security (3) disposal of excess materials (4) immediate removal from the job site of materials rejected by PG&E .	◆	
f. Prior to the installation of materials, the Applicant shall provide PG&E with supplier's certifications that all permanent materials to be used in the Work comply with the applicable PG&E specifications and Drawings. All material shall be new and in first class condition and shall comply with the requirements of this Agreement. If Applicant fails to provide materials in compliance with the specification and Drawings, PG&E reserves the right to reject the material. Any materials that are defective or in the opinion of PG&E show signs of deterioration shall be immediately removed from the job site and replaced by the Applicant.	◆	
g. The Applicant is responsible for furnishing all materials ³ and tools ⁴ for the Work. Storage and handling of all material shall be in accordance with the applicable PG&E standards or manufacturer recommendations. Storage areas shall be designated and access to these areas shall be limited to minimize damage to material. Some materials may require protected storage facilities to minimize deterioration from sunlight and weathering. Applicant shall ensure that material storage is in accordance with the above requirements. Furnishing protective storage facilities shall be the responsibility of the Applicant.	◆	
h. The Applicant shall ensure PG&E access to all material storage areas or facilities.	◆	

³PG&E will normally not sell materials to Applicants who chose to use their own Contractor. On rare occasions when a critical project will be delayed, PG&E may, at its option, sell material from PG&E stock to the Applicant (not to the Contractor) if **ALL** of the following criteria are met;

- (1) the Applicant has demonstrated that they have placed timely and proper material orders and they cannot obtain the material on time.
- (2) delayed delivery of the specific material will delay establishing service to PG&E customers;
- (3) the materials in PG&E stock are not dedicated nor needed for other projects or Work;
- (4) all payments including the appropriate taxes, overheads and any cost associated with the sale are collected up-front;
- (5) if PG&E trades materials with the Applicant, all PG&E costs associated with the trade are collected in advance of construction.

All sales are final. Return of sold material is not permitted.

⁴ Under no circumstance shall PG&E loan tools.

3. PAYMENTS	APPLICANT	PG&E
<p>a. Applicant shall compensate PG&E for the cost of</p> <ul style="list-style-type: none"> (1) Agreement and document preparation (2) Surveys (3) Land rights, preparation of land right documents, and associated permits acquired by PG&E. (4) Engineering and design specification documents including but not limited to site specific drawings, material specifications, and construction specifications documents (5) Construction and material inspections (6) PG&E administrative charges associated with the Work (7) Specific or special contractual requirements (E.g. Special facilities installations or engineering work to permit the Applicant to solicit competitive bids for the installation of the proposed gas, electric underground and electric overhead facilities. (8) PG&E's labor and material costs necessary to complete the installation. <p>These costs shall be paid by the Applicant prior to construction. The refundable costs for Applicant installed work that is PG&E's responsibility will be based on the lower of the Applicant's Contract Anticipated Costs or PG&E's estimated refundable costs. All other refundable and non-refundable costs will be based on PG&E's estimated costs.</p>	♦	
<p>b. PG&E refund and reimbursement payments for Work performed by the Applicant and accepted by PG&E are subject to the applicable extension and service rule allowances. Payments will be based on the lower of the Applicant's Contract Anticipated Costs or PG&E's estimated costs. PG&E will not refund or reimburse the Applicant for any special charges for non-standard activities performed or facilities installed.</p>		♦

4. PERMITS, LICENSES AND SPECIAL INSPECTION	APPLICANT	PG&E
<p>a. The Applicant is fully responsible for obtaining all necessary Permits and licenses for moving all construction equipment, tools, supplies, materials and people across railroads and highways, across public or private lands and along public and private roads. Applicant is responsible for obtaining such licenses and Permits as are necessary for it to operate and do business in any of the counties, towns, etc., in performance of the Work.</p>	♦	
<p>b. Applicant shall, without cost to PG&E, obtain all required Permits, serve notices, arrange for inspection and pay fees and deposits. Work shall comply with the applicable governmental rules, regulation and ordinances.</p>	♦	
<p>c. The Applicant shall be responsible for obtaining excavation Permits in accordance with Section 341 of Chapter 3.2, Group II, Title 8, California Administrative Code for "construction of trenches which are 5 feet deep or deeper and into which a person is required to descend."</p>	♦	
<p>d. Should special supervision or inspection of construction activities be required by any grantor or permittor, as a condition of the Permit or grant of occupation, Applicant shall be responsible to pay all costs of such supervision and inspection.</p>	♦	

5. ⁵ CONSTRUCTION	APPLICANT	PG&E
<p>a. The Applicant shall only solicit installation bids from qualified Contractor/ Subcontractors who shall:</p> <ol style="list-style-type: none"> (1) Be licensed in California for the appropriate type of work (electrical, general, etc.) (2) Employ workers properly certified for specific skills, required (plastic fusion, welding, etc.). Electric workers shall be properly qualified (Qualified Electrical Worker, Qualified Person, etc.) as defined in State of California High Voltage Safety Orders (Title 8, Chapter 4, Subchapter 5, Group 2). (3) Comply with applicable laws (Equal Opportunity Regulations, OSHA, EPA, etc.). <p>Further, an Applicant who intends to employ a Qualified Contractor/ Subcontractor should consider whether the Qualified Contractor/Subcontractor:</p> <ol style="list-style-type: none"> (1) Is technically competent (2) Has access to proper equipment (3) Demonstrates financial responsibility commensurate with the scope of the contract. (4) Has adequate insurance coverage (Workers' Compensation and Employer Liability, Commercial General Liability, and Business Auto. (5) Is able to furnish surety bond for performance of the contract, if required. 	♦	
<p>b. Applicant and their Contractors and Subcontractors shall use only PG&E-approved construction Drawings for construction purposes. Construction from unauthorized or preliminary Drawings is not permitted. The Applicant shall assume full responsibility for errors, omissions or changes if the project is constructed from preliminary Drawings or from non-PG&E approved construction Drawings.</p>	♦	
<p>c. Applicant shall require the Superintendent to be in charge of the worksite, to supervise the Contractor and Subcontractor Work, to exercise control as may be require and to be available to PG&E at the time when Work is being performed.</p>	♦	
<p>d. Applicant shall prepare and update as necessary a construction schedule to specify the starting dates and duration of the trenching, installation, backfill and clean up Work anticipated for the new gas and electric facilities. The schedule for other occupants of a joint trench, if any, shall also be indicated.</p>	♦	
<p>e. The Applicant shall be responsible both for arrangement of a pre-construction meeting for all pole line or trench occupants and coordination of all field installation of other joint pole and joint trench occupant's facilities. The pre-construction meeting should be held a minimum of ten working days prior to commencement of Work.</p>	♦	
<p>f. Applicant is to coordinate the installation of other Utilities, e.g., telephone, cable TV , to minimize costs to each party.</p>	♦	

⁵ PG&E shall not honor any claims arising from the Applicant's required adherence to Work practices and safety precautions dictated by PG&E's established safety rules.

5. CONSTRUCTION (Continued)	APPLICANT	PG&E
g. The Applicant shall schedule the Work to avoid any standby of PG&E personnel. PG&E shall have the right to approve the schedule. If PG&E's Work becomes delayed after mobilization by PG&E, the Applicant shall be liable for the cost of such delays (e.g., "move on", "move off" or standby time).	◆	
h. On final walk-thru and before energization or pressurization, the Applicant shall tag the electrical distribution, electrical services and gas services with the letters "AIF" and the anticipated expiration date of the material warranty. Identification shall be by affixing an orange plastic tag to the electrical wire in each primary and secondary enclosure, to the wires in the electrical service panels and to the gas service risers.	◆	
<p>i. Applicant shall plan and conduct the Work to safeguard persons and property from injury. Applicant shall direct the performance of the Work in compliance with reasonable Work practices and with applicable federal, state, and local laws, rules, and regulations, including but not limited to "Occupational Safety and Health Standards and Orders" promulgated by the US Secretary of Labor and the California Division of Occupational Safety and Health (Cal-OSHA).</p> <p>Work in areas adjacent to electrically energized facilities or operating natural gas facilities shall be performed in accordance with Cal-OSHA, established safety rules and as may be directed by PG&E.</p> <p>Before digging, Applicant shall contact, "Underground Service Alert" (USA), and abide by its rules and procedures.</p> <p>PG&E may require Applicant to observe reasonable safety precautions in addition to those in use or proposed by Applicant or other agencies. Neither the giving of special instructions by PG&E nor the adherence thereto by Applicant shall relieve Applicant of the sole responsibility to maintain safe and efficient working conditions.</p>	◆	
j. PG&E shall perform all Work involving connecting the Applicant's installed utility system to PG&E's operating facilities.		◆
k. Applicant workmanship shall be of acceptable quality in every respect, plumb and true, and shall comply or exceed the requirements of the Specifications and Drawings. Workmanship shall be subject to inspection by PG&E. If workmanship does not comply with the Specifications and Drawings, PG&E reserves the right to not accept the Work or to suspend Work.	◆	

6. ⁶ CHANGES AND EXTRA WORK	APPLICANT	PG&E
a.: PG&E or the Applicant may require changes in the Work or in the provisions governing the Work. Increase in Work, decrease in Work or changes shall be performed only when authorized in writing by the Applicant and PG&E on PG&E's current filed and approved Change Order Form. No subsequent claim will be honored for intangible effects or time lost resulting from Work covered by a Change Order. Pricing shown in the Change Orders may be flat costs and shall include all indirect or intangible costs.	◆	◆
b. For a change in Work requested by PG&E, PG&E shall re-estimate the Work to determine the value of the incremental direct labor and material costs. This cost change will revise PG&E's prepared estimate used as the basis for payment (if any) to the Applicant in accordance with the extension and service allowances in the tariffs.		◆
c. PG&E and the Applicant shall mutually agree to the value of all incremental intangible costs associated with the implementation of this change in the Work. PG&E shall have the right to review, audit and approve all documentation that supports an Applicant's basis of determining intangible incremental costs. The Applicant will be fully reimbursed for the value of these agreed upon intangible costs in accordance with These General Terms and Conditions and as identified in the appropriate tariffs.	◆	◆
d. In the event the extra Work requires additional materials, PG&E has the right to furnish certain material items that PG&E determines are in its best interest to furnish. The material to be furnished will be documented on the Change Order Form.		◆
e. For a change in the Work requested by the Applicant and agreed to by PG&E on the Change Order Form, PG&E shall re-estimate the Work to determine the value of the incremental direct labor and material costs. This cost change will revise PG&E's refundable or non-refundable payments to or from the Applicant in accordance with these General Terms and Conditions and as identified in the appropriate tariffs. PG&E shall determine the value of additional engineering and specification preparation charges for changes in the Work. The Applicant shall be responsible for any increased costs.	◆	◆

7. INSPECTION	APPLICANT	PG&E
a. The Applicant agrees to a thorough and detailed inspection (100%) by PG&E of any activity undertaken by the Applicant in the performance of the obligations of this Agreement.	◆	
b. Applicant's contracts with Contractor(s) and Subcontractors will provide for PG&E's right to conduct the required inspections.	◆	
c. Applicant shall pay the cost of inspection, including PG&E administrative overheads and payroll additives, per diem, transportation, etc. in accordance with the provisions of Gas & Electric Rules 15 and 16.	◆	

⁶ In the event the number of trench occupants changes from the number originally used to determine the costs, PG&E shall have the right to reallocate the costs in accordance with PG&E's established practices. Applicant may be billed for additional charges related to these changes. Failure or neglect of PG&E to condemn or reject inferior Work or material shall not be construed as acceptance of such Work or materials.

7. INSPECTION (Continued)	APPLICANT	PG&E
d. PG&E shall have free access to the Work at all times.		◆
e. PG&E has the right to make field and shop inspections and material tests. See material section for additional material inspection instructions.	◆	
f. The Applicant shall notify PG&E two working days in advance of commencing any related Work.	◆	
g. PG&E will assign a representative(s) to observe and approve all Work related to the attached specifications and Drawings. PG&E shall assign additional inspectors as it deems necessary to observe and approve specific items of Work that it deems to warrant additional inspection.		◆
h. PG&E may direct the Work in areas adjacent to electrically energized facilities or operating natural gas facilities as described in these General Terms and Conditions, Section 5f, Construction.		◆
i. Applicant agrees that no Work shall be performed unless PG&E is present or the Applicant has received prior written consent from PG&E to proceed.	◆	
j. The Applicant agrees that neither the making, nor the failure to make, inspections and tests nor the express or implied approval of the Work by PG&E shall relieve Applicant from the responsibility to complete and guarantee the Work as specified. Rejected Work shall be remedied at the Applicant's expense.	◆	
k. In the event that the Applicant fails to maintain the anticipated progress and the Work duration is extended beyond the original estimates, the Applicant will be liable for additional inspection and per diem costs. PG&E will not honor any claims arising from extended Work duration.	◆	

8. DOCUMENTATION AND AS-BUILT DRAWINGS	APPLICANT	PG&E
a. The Applicant shall provide documentation to warrant that the installed facilities meet or exceed the requirements of the Agreement and are installed in the proper location. In addition, the Applicant will provide two sets of separate gas and electric As-Built Drawings and marked up service orders (when applicable) marked in red and signed by Applicant prior to pressurization and energization.	◆	
b. The Applicant shall provide the following minimum gas As-Built Drawing requirements; (1) Corrected Construction Drawings marked in red and clearly showing all changes. (2) Marked up Drawings showing actual locations, footage's and dimensions of the installed distribution facilities. (3) Certified copies of PG&E's approved Qualification records for all welders/plastic joiners. (4) Testing documents including calibration documents for testing equipment.	◆	
c. Should the Applicant choose to perform the service completion Work PG&E will provided gas service orders of the facilities to be installed. It shall be the Applicant's responsibility to mark-up the service orders in red, so as to clearly identify all construction changes. These service orders must show actual locations, footage's and dimensions of the installed service facilities. The Applicant shall return all completed As-Built service orders to PG&E within ten (10) working days from completion of said service Work.	◆	◆

8. DOCUMENTATION AND AS-BUILT DRAWINGS (Continued)	APPLICANT	PG&E
d. The Applicant shall provide the following minimum electric As-Built Drawing requirements; The corrected Construction Drawings must be marked in red and clearly show changes. (1) Location, size, type and footage of installed conduit, cable and overhead conductor. (2) Location, size, type and dimensions of manholes, splice boxes and equipment enclosures (3) Location, size and type of poles and anchors (4) Location, type and manufacturer's name plate data of equipment.	♦	
e. Applicant shall have all As-Built Drawings and marked up service orders verified and approved by PG&E prior to pressurization and energization.	♦	

9. ⁷ FINAL ACCEPTANCE AND CONVEYANCE	APPLICANT	PG&E
a. Upon satisfactory completion of the Work PG&E will pressurize or energize the distribution system making the distribution system operational. Pressurization or energization will serve as PG&E's final acceptance of the Work.		♦
b. Upon final acceptance, and upon PG&E's receipt of any required formal right-of-way(s), easements, leases and Permits, the Applicant shall convey to PG&E all rights, title and interest in and to all such Work and facilities in accordance with the terms and conditions of Agreement.	♦	
c. Guarantee and warranty periods shall commence on the date of final acceptance by PG&E.	♦	♦
d. Services not completed (tied-in) upon final acceptance of the distribution system shall not be accepted with the distribution system. These services shall be accepted on the date(s) the first meter is set on the service.	♦	♦
The risk of loss or damage to the Work and materials shall remain with Applicant, Contractor and Subcontractor, until the Work is completed and accepted by PG&E.	♦	

10. PARTIAL USE OF FACILITIES	APPLICANT	PG&E
a. To provide permanent service, the Applicant, with prior written authorization of PG&E, may convey to PG&E certain portions of the underground facilities which have been completed and installed hereunder. If PG&E elects to accept by conveyance of portions of these underground facilities, the following shall apply:	♦	♦
b. The Applicant shall ensure that the utilization of such portions of the facilities will in no way delay completion of the entire system.	♦	
c. PG&E shall assume the responsibility for maintenance and operation of the portions of the facility conveyed.		♦
d. The conveyance of such sections shall in no way relieve the Applicant of liability due to use of defective materials or poor workmanship or damage by third parties.	♦	

⁷ Failure or neglect of PG&E to condemn or reject inferior Work or material shall not be construed or imply an acceptance of such Work or materials.

10. PARTIAL USE OF FACILITIES (Continued)	APPLICANT	PG&E
e. Authorization by PG&E for the partial use of facilities shall only be granted for the convenience of PG&E.		◆
f. Applicant must complete enough of the permanent system to minimize future hot tie-ins and Work near energized or pressurized facilities. PG&E may require completion of system sections as it deems acceptable.	◆	

D. CONTRACTORS AND SUBCONTRACTORS

1. Each Contractor and Subcontractor shall be covered by and comply with this Agreement and shall perform the Work for which it contracts in accordance therewith. A Contractor or Subcontractor shall be responsible to Applicant. However, PG&E will have the same privileges and rights with respect to the inspection of Work as are provided for under the contract documents governing the Work of Applicant.
2. A Contractor and Subcontractor shall provide insurance of the same type and limits as required of Applicant unless otherwise authorized in writing by PG&E. PG&E shall be indemnified by the Applicant against all actions, causes of action, claims and demands whatsoever, either in law or in equity arising from the acts or omissions of any Subcontractor within the same limits as those prescribed for Applicant.
3. No Contractor or Subcontractor, regardless of its approval by PG&E, shall bind or purport to bind PG&E.

E. INSURANCE

1. Applicant shall maintain the following insurance coverage.
 - 1.1 The Applicant is also responsible for its Contractor and Subcontractor maintaining sufficient limits of the same coverage. Documentation of same coverage by Contractor or Subcontractor shall be available from Applicant upon request.
 2. **Worker's Compensation and Employers' Liability:** Worker's Compensation insurance or self insurance indicating compliance with any applicable labor codes, acts, laws, or statutes, whether Federal or State, where Applicant, Contractor and Subcontractor performs Work.
 - 2.1. Employers' Liability insurance shall not less than \$ 1,000,000 for injury or death per accident.
 3. **Commercial General Liability:** Coverage shall be at least as broad as the Insurance Services Office (ISO) Commercial General Liability Coverage "occurrence" form, with no coverage deletions.
 - 3.1 The limit shall not be less than \$1,000,000 each occurrence for bodily injury, property damage and personal injury. If coverage is subject to a general aggregate limit, this aggregate limit shall be twice the occurrence limit.
 - 3.2. **Coverage shall:**
 - a) be "Additional Insured" endorsement add, as insured PG&E, its directors, officers, agents and employees with respect to liability arising out of Work performed by or for the Contractor;
 - b) be endorsed to specify that the Contractor's insurance is primary and that any insurance or self-insurance maintained by PG&E shall not contribute with it.
 4. **Business Auto:** Coverage shall be at least as broad as the Insurance Services Office (ISO) Business Auto Coverage form covering Automobile Liability, code 1 "any auto."
 - 4.1. The limit shall not be less than \$1,000,000 each accident for bodily injury and property damage.

5. **Additional Insurance Provisions:** Before commencing performance of Work, Applicant shall furnish PG&E with certificates of insurance and endorsements of all required insurance for Applicant.

5.1. The documentation shall state that coverage shall not be canceled except after thirty (30) days prior written notice has been given to PG&E.

5.2. The documentation must be signed by a person authorized by that insurer to bind coverage on its behalf and shall be submitted to:

Pacific Gas & Electric Company
Insurance Department
1 Market Street, Spear Tower - 2400
San Francisco, CA 94105

5.3. PG&E may inspect the original policies or require complete certified copies, at any time.

F. INDEMNITY AND WITHHOLDING

1. Applicant shall indemnify, defend and hold harmless PG&E, its officers, directors, agents, and employees, from and against all claims, demands, losses, damages, costs, expenses, and legal liability connected with or resulting from injury to or death of persons, including but not limited to employees of PG&E, Applicant, Contractor or Subcontractor; injury to property of PG&E, Applicant, Contractor, Subcontractor, or a third party, or to natural resources, or violation of any local, state or federal law or regulation, including but not limited to environmental laws or regulations, or strict liability imposed by any law or regulation; arising out of, related to, or in any way connected with Applicant performance of this Agreement, however caused, regardless of any strict liability or negligence of PG&E, whether active or passive, excepting only such claims, demands, losses, damages, costs, expenses, liability or violation of law or regulation as may be caused by the active negligence or willful misconduct of PG&E, its officers, agents, or employees.

2. Applicant acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with the release or spill of any legally designated hazardous material or waste as a result of the Work performed under this Agreement are expressly within the scope of this indemnity, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, abatement, removal, repair, cleanup, restoration, remedial Work, penalties, and fines arising from the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs are expressly within the scope of this indemnity.

3. Applicant shall, on PG&E's request, defend any action, claim or suit asserting a claim covered by this indemnity. Applicant shall pay all costs that may be incurred by PG&E in enforcing this indemnity, including reasonable attorney's fees.

G. GUARANTEES AND EQUIPMENT WARRANTY

1. **Guarantees:** In addition to the guarantees provided under this Agreement, or implied in fact or in law, Applicant shall leave the entire project in satisfactory working condition and shall be responsible for the repair or replacement at its expense of any part of the Work that develops defects due to faulty material, workmanship or within a period of one (1) year after the date of final acceptance by PG&E. Applicant shall, at its expense repair or replace other Work, equipment or property damaged as the result of the defects, or as a result of the repairing thereof, and hold PG&E harmless from PG&E repair expenses. The warranty period for a repaired or replaced part shall be one (1) year from the date of acceptance of the repaired or replaced part.

2. **Equipment Warranty (One (1) Year):** Applicant shall warrant that equipment furnished and installed by Applicant will be of the kind and quality described in this Agreement, free of defects in workmanship, and material, and unless otherwise specified, fit for its intended purpose. The warranty period for distribution and services accepted with the distribution system shall begin from the date the materials are accepted by PG&E and shall extend for one (1) year. The warranty period for all other services shall begin on the date the first meter is set and shall extend one (1) year. Should the equipment fail during that period, Applicant shall be liable for all cost associated with repair and replacement of the equipment in accordance with the guarantee above.
3. **Trench Guarantee (Two (2) Years Plus):** The Applicant shall also guarantee that all trench material and trench workmanship shall be satisfactory for a period of two (2) years or as specified in the permit, whichever is greater, from the date of final acceptance by PG&E. The guarantee period for services trenches not accepted with the final acceptance shall begin on the date the first meter is set and shall extend a minimum of two (2) years. During this guarantee period, the Applicant will be so notified should PG&E determine that defects in trench material or workmanship have developed.
 - 3.1. The Applicant shall pay the cost of the repair or replacement of any part of the Work hereunder which develops defects because of faulty material or workmanship on the part of the Applicant within the two (2) year period.
 - 3.2. Damage to any trench occupant's facilities or to third party property caused by operations of the Applicant shall be repaired or replaced by either the Applicant or PG&E at the Applicant's expense.
 - 3.3. Where PG&E determines that it is not practicable for the Applicant to make the necessary repairs (e.g. Energized or pressurized facilities). PG&E reserves the right to make repairs or replacements at the expense of the Applicant, preserving as far as possible the available evidence of the cause of failure, defect, or damage.

H. INTERPRETATION OF THE AGREEMENT

1. PG&E will decide upon the meaning and interpretation of the Agreement and this decision shall be binding to all parties to this Agreement.
2. It shall be the Applicant's responsibility to ensure that any proposal prepared or received by the Applicant is based on a full knowledge of all conditions that would affect the cost and conduct of the Work. The Applicant shall inform itself fully and convey to all potential Contractors the physical conditions at the Work site, including as applicable, subsurface geology, borrow pit conditions and spoil disposal areas; the availability, location and extent of construction and storage area and other facilities or structures above and below ground; necessary safety precautions and safeguards; dimensions not shown on the Drawings; the extent of established lines and levels; Work to be performed by PG&E or others; rules, regulations and requirements to be observed by the Applicant or its agents in the conduct of the Work.

I. CONFLICTS

1. Should any conflict exist between the General Terms and Conditions and the specific construction specifications, the terms of the General Conditions shall prevail. In the case of differences between the construction specifications and Drawings, the construction specifications shall prevail. In the case of differences between the Construction and Standard Drawings, the Applicant shall immediately so inform PG&E. PG&E shall determine which is the applicable Drawing or portion of a Drawing.
2. Should any conflict exist between the General Terms and Conditions and any applicable state or federal laws, rules, regulations, orders or codes, the state or federal laws, rules, regulations, orders or codes shall prevail. Varying degrees of stringency between the Drawings, specific construction specification, General Terms and Conditions and applicable state and federal laws, rules, regulation orders or codes are not to be deemed conflicts and the most stringent requirements shall control.

3. Applicant shall immediately report in writing to PG&E any discrepancies, errors, or inconsistencies in the Specifications, Drawings, Agreements or laws.
4. PG&E shall not honor any claim arising from the Applicant's resolution of conflicts not in accordance with these provisions.

J. CLAIMS SETTLEMENT, DISPUTES

1. It shall be Applicant's responsibility to inform PG&E, immediately following its occurrence or discovery, of any item or event which Applicant knows, or reasonably should know, that may result in a request for additional compensation under this Agreement. PG&E and Applicant shall endeavor to satisfactorily resolve the matter and should it not be disposed of to Applicant's satisfaction, Applicant shall, within 72 hours thereafter, deliver a written notice of claim to PG&E. Failure to so notify PG&E or failure to supply PG&E with information sufficient to evaluate Applicant's position, shall foreclose consideration of any Applicant's claim based on such item or event.
2. Upon receipt of the Applicant's notice of claim, PG&E will review it, taking into account all of the information submitted by the Applicant in substantiation of its claim, and will, within a period of thirty (30) days, prepare and furnish to the Applicant, a written determination and, if appropriate, an offer of settlement thereof.
3. If the Applicant rejects PG&E's determination, the Applicant may file a notice of appeal therefrom. Any such appeal shall be in writing, shall contain all specific and substantive reasons why the Applicant deems PG&E's written determination to be unsatisfactory, and shall be submitted as soon after receipt of PG&E's written determination as is practical, but in no event more than thirty (30) days thereafter.
4. In the event any dispute between PG&E and Applicant with respect to the interpretation or performance of this Agreement cannot be satisfactorily resolved, arbitration shall be resorted to, and the arbitration shall be conducted in San Francisco, California, by the American Arbitration Association before a single arbitrator in accordance with the rules of said association for the construction industry. In such proceedings, the parties shall have the right to utilize depositions as provided in Section 1283 and 1283.05 of California Code of Civil Procedure. The award of the sole arbitrator shall be conclusive and binding upon the parties, subject to the provisions of the California Code of Civil Procedure relating to arbitration as the same now exists or as the same shall be amended during the term of this Agreement. In such award, the arbitrator shall include the fixing of the expense of the arbitration and the assessment of the same in the judgment of the arbitrator against either or both parties hereto. Each party shall bear its cost for legal fees, witnesses, depositions, etc.

K. LEGAL REQUIREMENTS

1. Applicant shall discharge at once, and hold PG&E harmless from any liens that may be filed in connection with the Work. PG&E may retain from payments due, sufficient funds to discharge delinquent accounts of Applicant for which liens on PG&E's property have been or can be filed, and PG&E may at any time pay therefrom, for Applicant's account, such amounts as are admittedly due thereon.
2. If required by PG&E, Applicant shall require the Contractor(s) or Subcontractor(s) to obtain, within 5 days of request, a payment and performance bond in the amount specified by PG&E up to 100% of the installation price in a form and with a surety acceptable to PG&E. PG&E will reimburse Applicant for the bond separately within 21 days of receipt from Applicant of the surety company's invoice.

3. Infringement Protection

- 3.1. **Royalties:** Royalties or other charges for patents for designs, machinery, equipment or materials furnished by Applicant for the Work, or for processes or arts employed by Applicant in performing the Work, shall not be included in the basis for cost reimbursement.
3. 2. **Indemnity:** Applicant shall indemnify PG&E, its officers, agents and employees against loss, damage, expense and liability arising out of the infringement or alleged infringement of patents. Applicant shall defend at its expense suits for infringement or alleged infringement which may be instituted against PG&E. If PG&E's use of the aforementioned items is determined to constitute infringement, Applicant shall, at its expense, either procure for PG&E the right to continue its use; replace the infringing item with non-infringing item satisfactory to PG&E; modify the item so it becomes non-infringing; or remove the item. PG&E will not honor any claims arising from the Applicant's indemnification of PG&E per this Agreement provision.

L. RIGHTS OF PG&E

The Applicant shall provide PG&E, as part of the Applicant's Contract with the Contractor(s), the necessary rights to enforce the applicable portion of these General Terms and Conditions and construction specifications. PG&E shall have the right to inspect and approve any aspect of the Work relating to the procurement and installation of gas and electric facilities which will become part of PG&E's operating system. The Applicant shall honor and enforce any reasonable request made by PG&E.

M. RIGHT TO SUSPEND WORK

1. In the event of the failure of the Applicant to carry on any part of the Work covered by this Agreement in an efficient, workmanlike, skillful and careful manner to the satisfaction of PG&E or in the event of the failure of the Applicant to comply with any of the requirements of the Agreement, PG&E may give written notice to Applicant stating the respect, or respects, in which the Applicant is failing to comply with the terms of the Agreement.
2. If Applicant does not remedy such failure within seven calendar days after such notice is given, PG&E may, at its option and regardless of the state of completion of the Work, require the Applicant to terminate the Work. In such event, the Applicant may award all the remaining Work to another Contractor(s), or the Applicant may proceed with any part of the Work and award the remaining Work to another Contractor. In such event, Applicant shall deed to PG&E, and PG&E shall accept, only that portion of the Work completed by Applicant of a quality satisfactory to PG&E. The Applicant shall be liable for any costs to PG&E arising from this termination of the Work by the Applicant at PG&E's request.
3. If (1) the Applicant seeks relief under applicable law for the benefits of any insolvent or is adjudged bankrupt or (2) a legal action is commenced against the Applicant which in PG&E's opinion, may interfere with the completion of the Work, PG&E may require the Applicant to suspend the Work in progress. Applicant shall be liable for additional costs to PG&E arising from termination.
4. If, (1) the Contractor seeks relief under applicable law for the benefit of an insolvent or is adjudged bankrupt, or (2) legal action is commenced against the Contractor which in PG&E's opinion may interfere with the completion of the Work, the Applicant will honor the demand of PG&E to terminate the contract between the Applicant and Contractor. If the contract between the Applicant and Contractor is terminated, the Contractor shall vacate the Work site. termination Applicant shall be liable for additional costs to PG&E arising from termination .
5. Labor Dispute: In the event of a labor dispute or strike by Applicant's, Contractor's, or Subcontractors' employees which threatens the progress of Work, or PG&E's labor relations, or which disrupts PG&E's operations, or results in a secondary boycott at PG&E's facilities, PG&E reserves the right to suspend or discontinue the Work of the

Applicant, Contractor or any Subcontractor for cause. This paragraph shall be applicable whether or not any Applicant, Contractor or Subcontractor is directly involved in a labor dispute.

N. COMPLIANCE WITH LAWS AND REGULATIONS

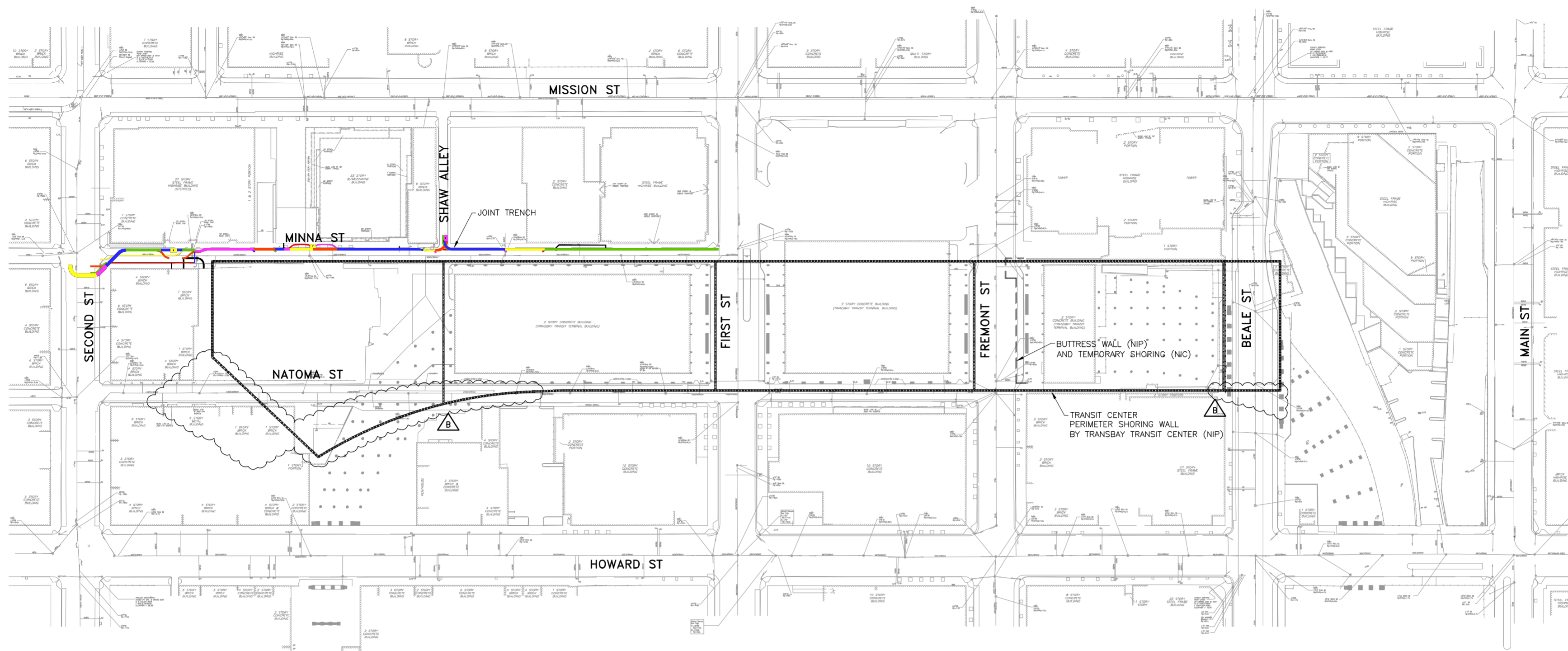
1. During the performance of the Work, Applicant, Contractor and its Subcontractors, agents and employees shall fully comply with all applicable state and federal laws and with any and all applicable bylaws, rules, regulations and orders made or promulgated by any government, government agency or department, municipality, board, commission or other regulatory body; and shall provide all certificates for compliance therewith as may be required by such applicable laws, bylaws, rules, regulations, orders, stipulations or plans.
2. Applicant shall assume full responsibility for the payment of all contributions and payroll taxes, whether Federal, state, municipal or otherwise as to its employees, servants or agents engaged in the performance of the Work. Applicant shall be responsible to pay all taxes applicable to its operations as imposed by any governing authority.
3. Applicant shall require any Contractor or Subcontractor to whom any portion of the Work to be performed hereunder may be contracted to comply with provisions of this paragraph, and agrees to save and hold PG&E harmless from any and all penalties, actions, causes of action, damages, claims and demands whatsoever arising out of or occasioned by failure of Applicant and Contractor or a Subcontractor to make full and proper compliance with said bylaws, rules, regulations, laws, orders, stipulations or plans.
4. This Agreement shall be deemed to be a contract made under laws of the State of California and for all purposes shall be construed in accordance with the laws of said state.

O. FEDERAL EQUAL OPPORTUNITY LAWS

Federal Regulations: During the performance of this Agreement and to the extent that Federal Equal Opportunity regulations may be applicable to this Agreement, the Applicant agrees to comply with all provisions of those orders and regulations included by summary or reference in the following:

1. **Equal Employment Opportunity:** Executive Order No. 11246, 3 CFR 339 (1065 (Contracts exceeding \$10,000) Provides that Applicant will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin and further that Applicant shall take affirmative action to ensure that Applicant and employee are treated without regard to their race, color, religion, sex or national origin.
2. **Certification of Non-segregated Facilities:** 41 CFR 60-1.8: (Contracts exceeding \$10,000) Applicant will not maintain or provide segregated facilities for its employees and will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained.
3. **Listing Employment Openings:** Executive Order 11701: (Contracts of \$2,500 or more) Applicant will list employment openings with the Employment Development Department in accordance with the Veteran's Employment and Readjustment Act of 1972 and Executive Order 11701. The contract clause, set forth at 41 CFR 50-250.2, is incorporated herein by reference.
4. **Employment of the Handicapped:** Rehabilitation Act of 1973: 41 CFR 60-741.4: (Contracts exceeding \$2,500) The affirmative action clause and the regulations contained in Part 41 CFR 60 - 741.4 are incorporated herein by reference.
5. **Utilization of Minority Enterprises :**Executive Order 11625: (Contracts exceeding \$5,000) it is the Policy of the Government that Minority Business Enterprises shall have the maximum practicable opportunity to participate in the performance of Government contracts. The Applicant agrees to use its best efforts to carry out this policy in the award of its subcontracts to the fullest extent consistent with the efficient performance of this Agreement.

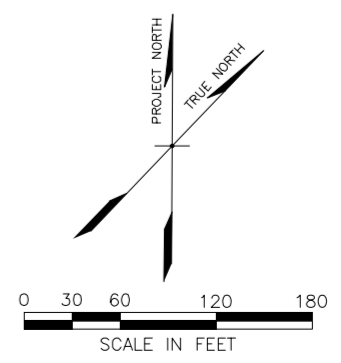
6. **Filing EEO-1 Forms and Preparing Affirmative Action Plans, Executive Order 11246 (Contracts of \$50,000 or more):** If the value of this Agreement is \$50,000 or more and the Contractor has 50 or more employees, the Applicant agrees to file appropriate EEO-1 forms in accordance with existing regulations and maintain a current written affirmative action compliance program at each establishment at which Applicant has 50 or more employees.
7. **Vietnam Era Veterans Readjustment Assistance:** Act of 1974, Title 41, Chapter 60, Part 250 (Contracts of \$10,000 or more): The affirmative action clause and the regulations pertaining to the employment of disabled veterans and veterans of the Vietnam Era are incorporated herein by reference.
8. **Americans with Disabilities Act:** Applicant agrees that, to the extent it may be applicable to this Agreement, Applicant shall comply with the Americans with Disabilities Act (42 U.S.C., Section 1201, et seq.) and with the regulations promulgated pursuant thereto.



JOINT TRENCH PLAN
SCALE: 1"=60'

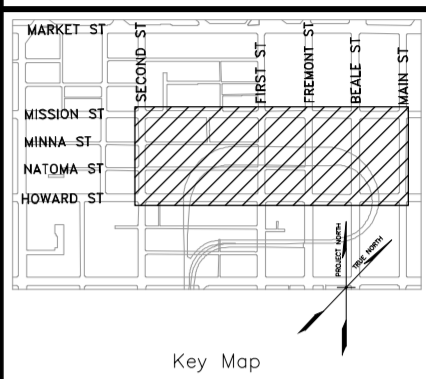
GENERAL NOTES

1. CONTRACTOR SHALL CONSTRUCT THE NEW PG&E ELECTRICAL CONDUITS, HIGH PRESSURE GAS PIPE AND AT&T TELECOMMUNICATION CONDUITS WITHIN A COMMON TRENCH (JOINT TRENCH) IN MINNA STREET BETWEEN FIRST STREET AND SECOND STREET. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES FOR SCHEDULE AND DETAILS AT THE LIMITS OF JOINT TRENCH.
2. THE LAYOUT OF JOINT TRENCH IS BASED ON THE AVAILABLE INFORMATION. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD CHANGES TO ACCOMMODATE WITH EXISTING FIELD CONDITION. PROVIDE ALL NECESSARY WORK FOR OFFSETS, CHANGES OF DIRECTION AND ELEVATION TO AVOID CONFLICTS WITH EXISTING AND NEW FACILITIES AND WORK TO BE PROVIDED BY OTHER DIVISIONS.
3. PROVIDE ALL REQUIRED TRENCHING INCLUDING DEEPER TRENCHES TO ALLOW CONDUIT OFFSETS, CONDUIT CROSSING, CONNECTIONS TO MANHOLES AND PULL BOXES FOR A COMPLETE INSTALLATION.
4. ALL CONNECTION TO MANHOLES SHALL COMPLY WITH UTILITY COMPANIES REQUIREMENTS. COORDINATE WITH UTILITY COMPANIES.
5. CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND TRENCH CONFIGURATIONS TO INCLUDE ALL CONDUITS INSTALLED BELOW THE STREET AND/OR SIDE WALK AREA BASED ON SUBSURFACE INVESTIGATIONS. CONTRACTOR SHALL SUBMIT THE SHOP DRAWING TO TJPA FOR REVIEW AND APPROVAL.
6. ADJUST DUCTBANK AND PIPE AT CROSSING UTILITIES TO MAINTAIN A MINIMUM 6 INCH VERTICAL SEPARATION.
7. THE CONTRACTOR IS RESPONSIBLE TO HAVE ALL TRENCHING AND INSTALLATION INSPECTED AND APPROVED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO ANY BACKFILLING. (48 HOURS MINIMUM NOTICE).
8. SHOULD A DISPUTE OR DISAGREEMENT OVER ANY INSTALLATION, DESIGN, PLAN, OR DRAWING OCCUR THE SPECIFICATIONS AND REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANY AND THEIR INSPECTOR SHALL TAKE PRECEDENCE.
9. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES. LACK OF TIMELINESS ON THE PART OF ANY UTILITY COMPANY SHALL NOT BE THE BASIS FOR ANY REQUEST FOR ADDITIONAL COMPENSATION.
10. THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED TO BE COMPLEMENTARY TO ONE ANOTHER. ANYTHING MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS SHALL BE CONSIDERED OF LIKE EFFECT AS IF APPEARING IN BOTH. CONTACT TJPA PRIOR TO START OF WORK IF A DISCREPANCY IS FOUND.
11. CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS. CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A. INDUSTRIAL ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING ENERGIZED EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MANPOWER AND SAFETY PRECAUTIONS AS NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND TRAFFIC CONTROL MEASURES.
12. THE CONTRACTOR SHALL MAINTAIN POINTS OF ACCESS THAT ARE AGREEABLE TO ADJACENT LAND USERS AND TENANTS AT ALL TIMES.
13. NOTIFY PG&E TWO WORKING DAYS IN ADVANCE OF COMMENCING WORK. NO WORK SHALL BE PERFORMED UNLESS PG&E IS PRESENT OR WRITTEN CONSENT FROM PG&E HAS BEEN PROVIDED. COORDINATE WITH PG&E THROUGH TJPA'S REPRESENTATIVE.
14. ALL CONDUIT ENTRANCE TO MANHOLES, PULL BOX, & VAULTS SHALL BE WATER PROOFED. ALL INSTALLATION SHALL CONFORM TO REQUIREMENTS OF UTILITY COMPANIES AND COMMUNICATION SERVICE PROVIDER.
15. CONSTRUCTION OF JOINT TRENCH SHALL BE COORDINATED WITH THE SEQUENCING OF THE DEMOLITION OF EXISTING UTILITIES TO MAINTAIN SERVICE.



Transbay Transit Center
TRANSBAY JOINT POWERS AUTHORITY

AECOM 405 Howard Street, Suite 400
San Francisco, CA 94105
PHONE (415) 522-5000



NO.	DATE	DESCRIPTION	BY

08-04-CMGC-000

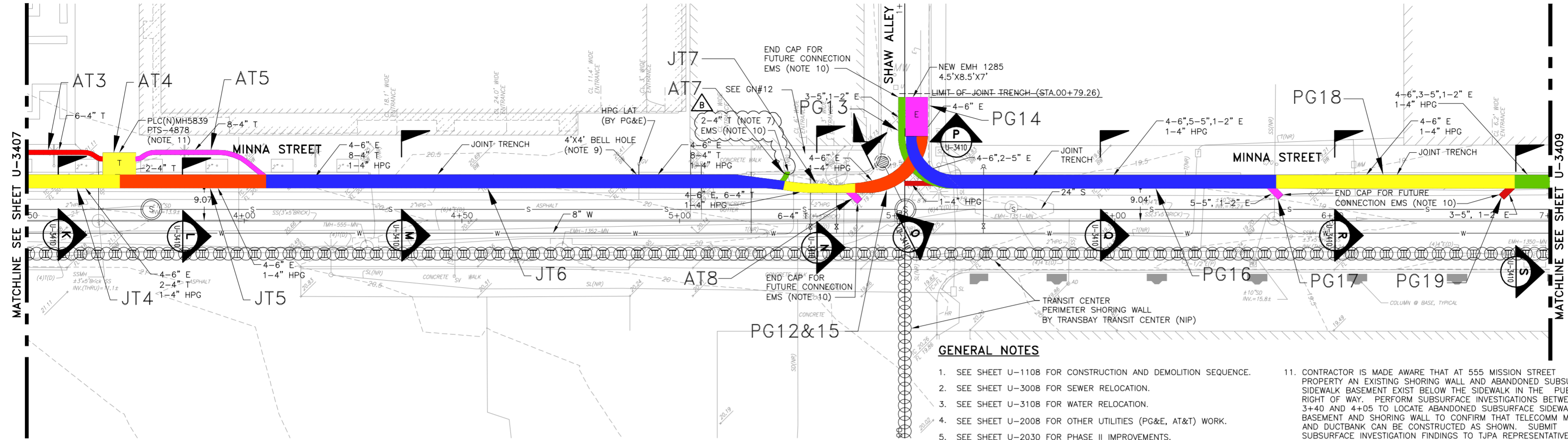
**TRANSBAY TRANSIT CENTER PROGRAM
RELOCATION OF UTILITIES PROJECT
SAN FRANCISCO, CA**

JOINT TRENCH
GENERAL PLAN AND NOTES

ORIGINAL DRAWING SIGNED	
NOT FOR CONSTRUCTION	
APPROVED: PRINCIPAL ENGINEER	D. WONG
APPROVED: PROJECT MANAGER	E. ZAGOL
APPROVED: PROJECT ENGINEER	E. ZAGOL
DESIGNED BY: T. PENG	CHECKED BY: E. ZAGOL
DRAWN BY: L. POUND	DATE: 9/3/2010
SCALE: AS SHOWN	SHEET NO. / FACILITY NO. / REVISION: 121 / C
SHEET NUMBER	SEQUENCE NUMBER
U-3400	124 of 172

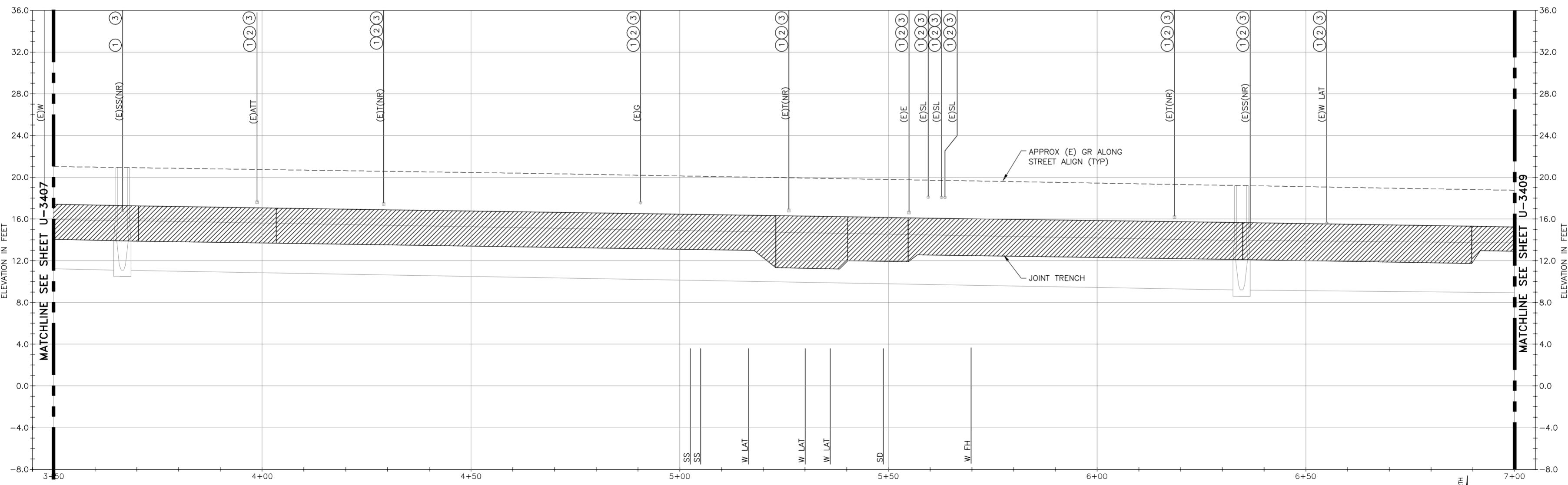
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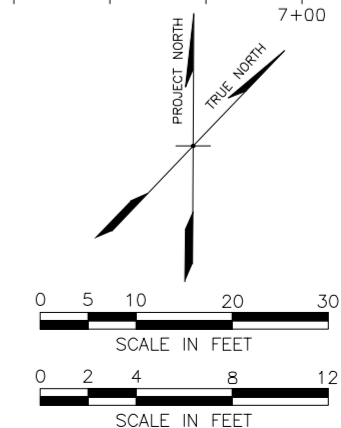
PLAN - MINNA STREET
SCALE: 1"=10'

- GENERAL NOTES**
- SEE SHEET U-1108 FOR CONSTRUCTION AND DEMOLITION SEQUENCE.
 - SEE SHEET U-3008 FOR SEWER RELOCATION.
 - SEE SHEET U-3108 FOR WATER RELOCATION.
 - SEE SHEET U-2008 FOR OTHER UTILITIES (PG&E, AT&T) WORK.
 - SEE SHEET U-2030 FOR PHASE II IMPROVEMENTS.
 - SEE SHEET U-4000 FOR COMPOSITE UTILITY SECTIONS.
 - CONNECTION TO EXISTING TELECOMMUNICATION SERVICE AT PROPERTY LINE (SUBSURFACE SIDEWALK BASEMENT) BY AT&T. COORDINATE WITH AT&T LOCATION AND DEPTH OF CONDUIT TO PROPERTY LINE (SUBSURFACE SIDEWALK BASEMENT) PRIOR TO CONSTRUCTION.
 - NOT USED
 - EXCAVATE 4'x4' BELL HOLE AT EXISTING GAS SERVICE TO EXPOSE EXISTING SERVICE. PG&E TO CONNECT. RESTORE TRENCH PER PLANS AND SPECIFICATIONS.
 - INSTALL EMS LOCATION DEVICE IN TRENCH AT THE END OF DUCTBANK PER SPECIFICATIONS.
 - CONTRACTOR IS MADE AWARE THAT AT 555 MISSION STREET PROPERTY AN EXISTING SHORING WALL AND ABANDONED SUBSURFACE SIDEWALK BASEMENT EXIST BELOW THE SIDEWALK IN THE PUBLIC RIGHT OF WAY. PERFORM SUBSURFACE INVESTIGATIONS BETWEEN STA 3+40 AND 4+05 TO LOCATE ABANDONED SUBSURFACE SIDEWALK BASEMENT AND SHORING WALL TO CONFIRM THAT TELECOMM MANHOLE AND DUCTBANK CAN BE CONSTRUCTED AS SHOWN. SUBMIT SUBSURFACE INVESTIGATION FINDINGS TO TJPA REPRESENTATIVE. FOLLOWING SUBSURFACE INVESTIGATIONS SUBMIT SHOP DRAWINGS SHOWING MANHOLE LOCATION AND CONDUIT ALIGNMENT AND ELEVATIONS TO THE TJPA REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. COORDINATE WITH TJPA REPRESENTATIVE, AT&T AND PROPERTY OWNER PRIOR TO CONSTRUCTION. RESTORE SPECIAL SIDEWALK CONCRETE PAVEMENT TO MATCH EXISTING.
 - CONTRACTOR IS MADE AWARE THAT AT 2 SHAW ALLEY PROPERTY A SUBSURFACE SIDEWALK BASEMENT AND UNKNOWN UTILITY STRUCTURE (POSSIBLE CISTERN) EXIST BELOW THE PUBLIC RIGHT OF WAY. PERFORM SUBSURFACE INVESTIGATIONS BETWEEN STA 5+00 AND 5+55 TO LOCATE EXISTING SUBSURFACE SIDEWALK BASEMENT AND TO LOCATE AND IDENTIFY UNKNOWN UTILITY STRUCTURE. FOLLOWING SUBSURFACE INVESTIGATIONS SUBMIT SHOP DRAWINGS SHOWING CONDUIT AND PIPE ALIGNMENT AND ELEVATIONS AND SIDEWALK BASEMENT PROTECTION PLAN TO THE TJPA REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. COORDINATE WITH TJPA REPRESENTATIVE, AT&T, PG&E AND PROPERTY OWNER PRIOR TO CONSTRUCTION.



ELEVATION - MINNA STREET
SCALE: 1"=10'H; 1"=4'V

- KEY NOTES**
- ELEVATION OF UTILITY IS ESTIMATED. ELEVATION OF UTILITY SHOWN IS INFERRED FROM UTILITY'S STANDARD DEPTH OF COVER, SUBSURFACE INVESTIGATIONS, AND KNOWN EXISTING UTILITY ELEVATIONS (I.E. SEWER). LOCATE UTILITY PRIOR TO CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 02 06 30 - SUBSURFACE INVESTIGATIONS.
 - DEMOLISH PER DEMOLITION PLANS OF THIS SET OF DRAWINGS.
 - SIZE UNKNOWN.



NO.	DATE	REVISIONS	DESCRIPTION

08-04-CMGC-000
TRANSBAY TRANSIT CENTER PROGRAM
RELOCATION OF UTILITIES PROJECT
SAN FRANCISCO, CA
JOINT TRENCH PLAN AND ELEVATION
PHASE I
MINNA STREET 2

ORIGINAL DRAWING
SIGNED

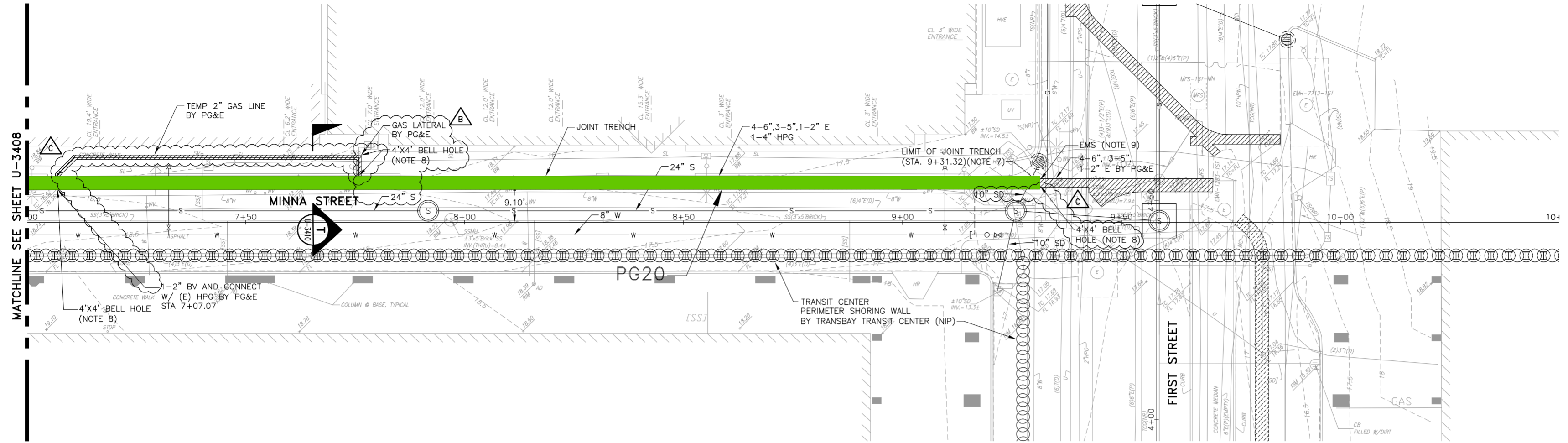
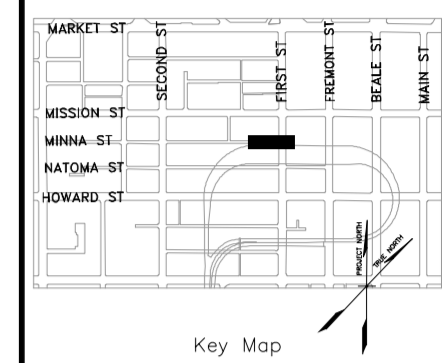
NOT FOR CONSTRUCTION

APPROVED:	D. WONG
PRINCIPAL ENGINEER	D. WONG
APPROVED:	E. ZAGOL
PROJECT MANAGER	E. ZAGOL
APPROVED:	E. ZAGOL
PROJECT ENGINEER	E. ZAGOL
DESIGNED BY:	T. PENG
CHECKED BY:	E. ZAGOL
DRAWN BY:	S. MARTINSEN
DATE:	8/27/2010
SCALE:	AS SHOWN
SHEET NUMBER:	121
SEQUENCE NUMBER:	B

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 Sep 14, 2010 11:18am X:\Projects\T\JPA\Early Relocation of Utilities\08-04-CMGC-000\08-04-CMGC-000.dwg
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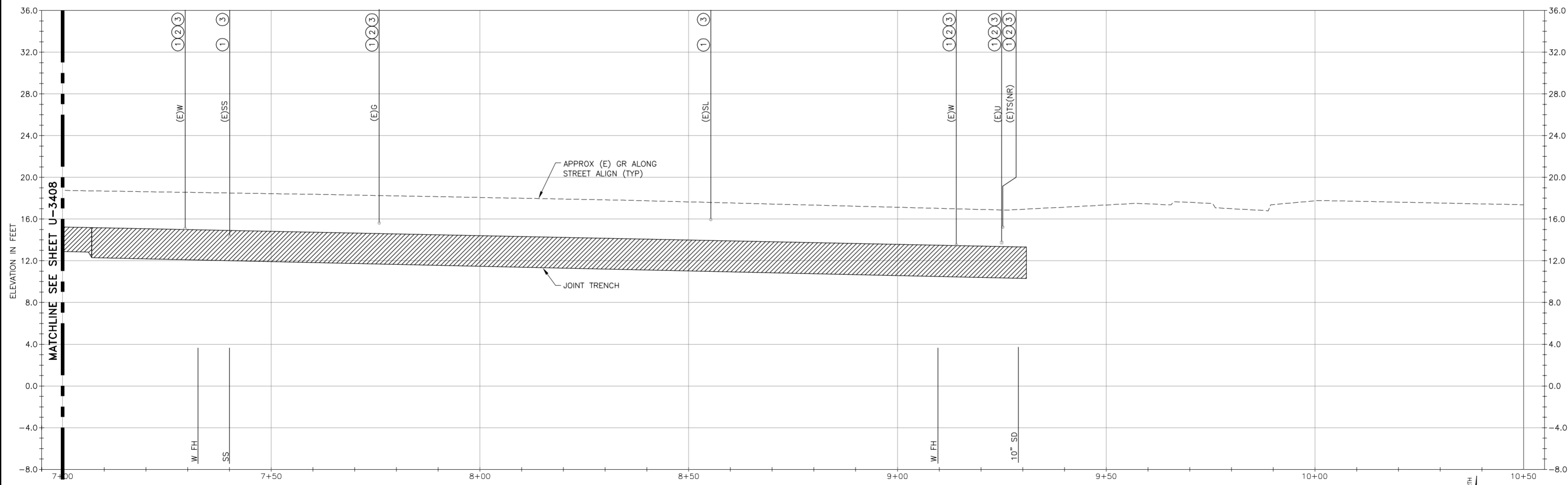
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PLAN - MINNA STREET
SCALE: 1"=10'

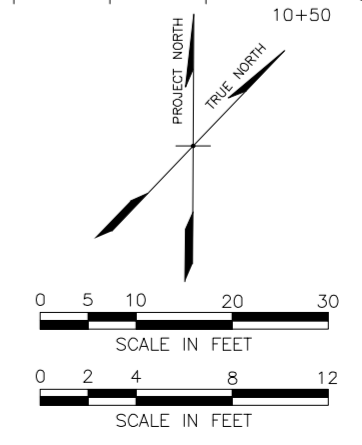
- GENERAL NOTES**
- SEE SHEET U-1109 FOR CONSTRUCTION AND DEMOLITION SEQUENCE.
 - SEE SHEET U-3009 FOR SEWER RELOCATION.
 - SEE SHEET U-3109 FOR WATER RELOCATION.
 - SEE SHEET U-2009 FOR OTHER PHASE I IMPROVEMENTS.
 - SEE SHEET U-2031 FOR PHASE II IMPROVEMENTS.
 - SEE SHEET U-4000 FOR COMPOSITE UTILITY SECTIONS.
 - EXCAVATE AND COORDINATE FIELD CONNECTION AND CONNECTION ELEVATION WITH PG&E.
 - EXCAVATE 4'X4' BELL HOLE AT EXISTING GAS SERVICE TO EXPOSE EXISTING SERVICE. PG&E TO CONNECT. RESTORE TRENCH PER PLANS AND SPECIFICATIONS.
 - INSTALL EMS LOCATION DEVICE IN TRENCH AT THE END OF DUCTBANK PER SPECIFICATIONS.

NO.	DATE	DESCRIPTION



ELEVATION - MINNA STREET
SCALE: 1"=10'H; 1"=4'V

- KEY NOTES**
- ELEVATION OF UTILITY IS ESTIMATED. ELEVATION OF UTILITY SHOWN IS INFERRED FROM UTILITY'S STANDARD DEPTH OF COVER, SUBSURFACE INVESTIGATIONS, AND KNOWN EXISTING UTILITY ELEVATIONS (I.E. SEWER). LOCATE UTILITY PRIOR TO CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 02 06 30 - SUBSURFACE INVESTIGATIONS.
 - DEMOLISH PER DEMOLITION PLANS OF THIS SET OF DRAWINGS.
 - SIZE UNKNOWN.



08-04-CMGC-000
TRANSBAY TRANSIT CENTER PROGRAM
RELOCATION OF UTILITIES PROJECT
SAN FRANCISCO, CA
JOINT TRENCH PLAN AND ELEVATION
PHASE I
MINNA STREET 3

ORIGINAL DRAWING
SIGNED

NOT FOR CONSTRUCTION

APPROVED:	D. WONG
PRINCIPAL ENGINEER	
APPROVED:	E. ZAGOL
PROJECT MANAGER	
APPROVED:	E. ZAGOL
PROJECT ENGINEER	
DESIGNED BY:	T. PENG
CHECKED BY:	E. ZAGOL
DATE:	9/3/2010
DRAWN BY:	L. POUND
SHEET NUMBER:	121
SEQUENCE NUMBER:	C

U-3409 127 of 172

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JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

Project	TJPA Joint Trench - Contract No. 07-03-Util-000
----------------	--

ABBREVIATIONS
JT Joint trench
PG PG&E Electric Trench
AT AT&T Trench
PG(Elec.&Gas) PG&E Electric & Gas Joint Trench

TRENCHING AND VAULT EXCAVATION - Does not include conduit and substructure installation. Costs are shared proportionally between the joint trench participants.																	
Cost Assem bly	Trench Section Name	Type	Qty	Length [F]	Width [F]	Depth [F]	excavated volume [CY]	Unit Price [\$/F]	Total	PG&E Electric		PG&E Gas		AT&T			
										%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL
1	PG1	TRN	1	40.50	5.00	4.00	23.8	93.19	\$3,774	100%	\$3,774	0%	\$0	0%	\$0	100%	
2	PG 2 - GAS	Gas Line	1	0.00	2.00	4.00	0.0	54.31	\$0	0%	\$0	100%	\$0	0%	\$0	100%	
3	PG 3	TRN	1	17.00	5.00	4.00	10.0	93.19	\$1,584	100%	\$1,584	0%	\$0	0%	\$0	100%	
4	PG 4	TRN	1	19.00	3.20	5.98	11.6	193.85	\$3,683	100%	\$3,683	0%	\$0	0%	\$0	100%	
5	PG 5	TRN	1	35.00	4.13	5.98	27.6	210.73	\$7,376	100%	\$7,376	0%	\$0	0%	\$0	100%	
6	PG 6 - Vault	Vault	1	0.00	0.00	0.00	0.0	0.00	\$0	0%	\$0	0%	\$0	0%	\$0	0%	
7	PG 7	TRN	1	50.00	3.50	5.17	28.1	156.51	\$7,825	100%	\$7,825	0%	\$0	0%	\$0	100%	
8	PG 8 - GAS	Gas Line	1	15.00	2.00	3.50	3.0	37.62	\$564	0%	\$0	100%	\$564	0%	\$0	100%	
9	PG 9A	TRN	1	20.00	2.87	6.35	11.7	206.69	\$4,134	100%	\$4,134	0%	\$0	0%	\$0	100%	
10	PG 9B	TRN	1	35.00	1.96	6.35	14.0	171.36	\$5,997	100%	\$5,997	0%	\$0	0%	\$0	100%	
11	JT1A	TRN	1	17.50	2.87	5.63	8.9	158.47	\$2,773	72%	\$1,998	0%	\$0	28%	\$775	100%	
12	JT1B	TRN	1	83.00	3.00	6.44	51.7	191.04	\$15,856	59%	\$9,377	18%	\$2,843	23%	\$3,636	100%	
13	PG 10	TRN	1	6.00	2.00	5.90	2.3	154.47	\$927	100%	\$927	0%	\$0	0%	\$0	100%	
14	AT 1	TRN	1	120.00	3.00	4.50	48.9	77.50	\$9,300	0%	\$0	0%	\$0	100%	\$9,300	100%	
15	JT 2A	TRN	1	28.50	3.00	6.26	17.2	187.72	\$5,350	60%	\$3,219	17%	\$935	22%	\$1,196	100%	
16	PG 11	TRN	1	6.00	2.00	6.26	2.4	164.93	\$990	100%	\$990	0%	\$0	0%	\$0	100%	
17	JT 2B	TRN	1	14.00	3.00	6.37	8.6	200.97	\$2,814	55%	\$1,550	20%	\$554	25%	\$709	100%	
18	AT 2	TRN	1	11.00	2.00	4.25	2.8	50.16	\$552	0%	\$0	0%	\$0	100%	\$552	100%	
19	JT 3	TRN	1	7.50	3.00	6.37	4.6	200.97	\$1,507	50%	\$752	18%	\$269	32%	\$487	100%	
20	JT 4	TRN	1	32.00	3.00	6.37	19.7	200.97	\$6,431	58%	\$3,749	21%	\$1,341	21%	\$1,341	100%	
21	JT 5	TRN	1	35.00	3.00	6.36	21.5	200.61	\$7,021	74%	\$5,172	26%	\$1,849	0%	\$0	100%	
22	AT 3	TRN	1	34.00	2.00	4.20	8.5	47.45	\$1,613	0%	\$0	0%	\$0	100%	\$1,613	100%	
23	AT 4 - Vault	Vault	1	0.00	0.00	0.00	0.0	0.00	\$0	0%	\$0	0%	\$0	0%	\$0	0%	
24	AT 5	TRN	1	34.00	2.00	4.20	8.5	47.45	\$1,613	0%	\$0	0%	\$0	100%	\$1,613	100%	
25	AT 6	TRN	1	0.00	2.54	4.20	0.0	60.27	\$0	0%	\$0	0%	\$0	100%	\$0	100%	
26	JT 6	TRN	1	118.00	3.00	6.37	72.6	200.97	\$23,714	50%	\$11,824	18%	\$4,228	32%	\$7,662	100%	
27	AT 7	TRN	1	4.00	2.00	4.20	1.0	49.45	\$198	0%	\$0	0%	\$0	100%	\$198	100%	
28	JT 7	TRN	1	15.50	1.96	8.00	8.1	204.67	\$3,172	41%	\$1,315	26%	\$815	33%	\$1,042	100%	
29	AT 8	TRN	1	6.00	2.00	4.20	1.5	49.45	\$297	0%	\$0	0%	\$0	100%	\$297	100%	
30	PG 12 & 15 (Elec.+Gas)	TRN	1	23.00	3.00	7.86	18.0	254.72	\$5,859	74%	\$4,315	26%	\$1,543	0%	\$0	100%	
31	PG 13	TRN	1	28.00	1.58	6.54	9.4	153.12	\$4,287	100%	\$4,287	0%	\$0	0%	\$0	100%	
32	PG 14 - Vault	Vault	1	0.00	0.00	0.00	0.0	0.00	\$0	0%	\$0	0%	\$0	0%	\$0	0%	
33	PG 16 (Elec.+Gas)	TRN	1	96.00	3.00	6.59	61.4	196.45	\$18,859	80%	\$15,152	20%	\$3,707	0%	\$0	100%	
34	PG 17	TRN	1	4.00	2.50	6.59	2.1	192.93	\$772	100%	\$772	0%	\$0	0%	\$0	100%	
35	PG 18 (Elec.+Gas)	TRN	1	55.00	3.00	5.34	27.5	163.81	\$9,010	74%	\$6,637	26%	\$2,373	0%	\$0	100%	
36	PG 19	TRN	1	4.00	2.00	5.34	1.3	138.20	\$553	100%	\$553	0%	\$0	0%	\$0	100%	
37	PG 20 (Elec.+Gas)	TRN	1	231.00	3.00	5.89	129.8	174.37	\$40,280	74%	\$29,670	26%	\$10,610	0%	\$0	100%	
VAULTS including Excavation, Backfill, Shoring, Concrete etc..																	
	Substructure Name	Type	Qty	Vault insideDim [LxWxH in F]	Excavation [CY]	Backfill [CY]		Shoring [SF]	Total								
6	PG - 6	Vault	1	9.5x5.5x5.85	45.22	22.8	45.2	175.50	\$16,577	100%	\$16,577	0%	\$0			100%	
23	AT& T	Vault	1	7.0x5.0x4.0	26.48	13.3	26.5	96.00	\$9,540					100%	\$9,540	100%	
32	PG - 14	Vault	1	9.0x5.0x8.1	55.61	28.3	55.6	226.80	\$21,058	100%	\$21,058					100%	
Total					1245				\$245,862		\$174,268		\$31,632		\$39,962		

JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

Project	TJPA Joint Trench - Contract No. 07-03-Util-000
----------------	--

ABBREVIATIONS

JT **Joint trench**

PG **PG&E Electric Trench**

AT **AT&T Trench**

PG(Elec.&Gas) **PG&E Electric & Gas Joint Trench**

SITE DEMOLITION & RESTORATION DETAIL - Includes sawcutting, breaking, and paving. Costs are shared equally by the joint trench participants.																
Cost Assembly	Section Name	Type	Qty.	New Surface	Curb & Gutter (A)	Trench Area (B)	Saw Cutting (C)	Unit Cost/SF (D)	Total (A+C)+(B*D)	PG&E Electric		PG&E Gas		AT&T		
										%	TOTAL	%	TOTAL	%	TOTAL	% TOTAL
38	PG1	TRN	1	8"Con, 2" Asf.	\$0	284	\$948	\$36.43	\$11,276	100%	\$11,276	0%	\$0	0%	\$0	100%
38	PG 2 - GAS	TRN	1	8"Con, 2" Asf.	\$0	0	\$0	\$36.43	\$0	0%	\$0	100%	\$0	0%	\$0	100%
38	PG 3	TRN	1	8"Con, 2" Asf.	\$0	119	\$398	\$36.43	\$4,733	50%	\$2,366	50%	\$2,366	0%	\$0	100%
38	PG 4	TRN	1	8"Con, 2" Asf.	\$0	99	\$445	\$36.43	\$4,044	100%	\$4,044	0%	\$0	0%	\$0	100%
38	PG 5	TRN	1	8"Con, 2" Asf.	\$1,280	215	\$819	\$36.43	\$9,915	100%	\$9,915	0%	\$0	0%	\$0	100%
38	PG 6 - Vault	Vault	1	8"Con, 2" Asf.	\$0	0	\$0	\$36.43	\$0	0%	\$0	0%	\$0	0%	\$0	0%
38	PG 7	TRN	1	8"Con, 2" Asf.	\$1,829	275	\$1,170	\$36.43	\$13,017	50%	\$6,508	50%	\$6,508	0%	\$0	100%
38	PG 8 - GAS	TRN	1	8"Con, 2" Asf.	\$549	60	\$351	\$36.43	\$3,085	0%	\$0	100%	\$3,085	0%	\$0	100%
38	PG 9A	TRN	1	8"Con, 2" Asf.	\$731	97	\$468	\$36.43	\$4,748	100%	\$4,748	0%	\$0	0%	\$0	100%
38	PG 9B	TRN	1	8"Con, 2" Asf.	\$1,280	139	\$819	\$36.43	\$7,148	100%	\$7,148	0%	\$0	0%	\$0	100%
38	JT1A	TRN	1	8"Con, 2" Asf.	\$640	85	\$410	\$36.43	\$4,154	33.33%	\$1,385	33.33%	\$1,385	33.33%	\$1,385	100%
38	JT1B	TRN	2	8"Con, 2" Asf.	\$3,035	415	\$1,942	\$36.43	\$20,096	33.33%	\$6,698	33.33%	\$6,698	33.33%	\$6,698	100%
38	PG 10	TRN	1	8"Con, 2" Asf.	\$0	24	\$140	\$36.43	\$1,015	100%	\$1,015	0%	\$0	0%	\$0	100%
38	AT 1	TRN	1	8"Con, 2" Asf.	\$0	600	\$2,808	\$36.43	\$24,666	0%	\$0	0%	\$0	100%	\$24,666	100%
38	JT 2A	TRN	1	8"Con, 2" Asf.	\$1,042	143	\$667	\$36.43	\$6,900	33%	\$2,300	33.33%	\$2,300	33.33%	\$2,300	100%
38	PG 11	TRN	1	8"Con, 2" Asf.	\$0	24	\$140	\$36.43	\$1,015	100%	\$1,015	0%	\$0	0%	\$0	100%
38	JT 2B	TRN	1	8"Con, 2" Asf.	\$512	70	\$328	\$36.43	\$3,390	33.33%	\$1,130	33.33%	\$1,130	33.33%	\$1,130	100%
38	AT 2	TRN	1	8"Con, 2" Asf.	\$0	44	\$257	\$36.43	\$1,860	0%	\$0	0%	\$0	100%	\$1,860	100%
38	JT 3	TRN	1	8"Con, 2" Asf.	\$274	38	\$176	\$36.43	\$1,816	33.33%	\$605	33.33%	\$605	33.33%	\$605	100%
38	JT 4	TRN	1	8"Con, 2" Asf.	\$1,170	160	\$749	\$36.43	\$7,748	33.33%	\$2,582	33.33%	\$2,582	33.33%	\$2,582	100%
38	JT 5	TRN	1	8"Con, 2" Asf.	\$1,280	175	\$819	\$36.43	\$8,474	50%	\$4,237	50%	\$4,237	0%	\$0	100%
38	AT 3	TRN	1	8"Con, 2" Asf.	\$0	136	\$796	\$36.43	\$5,750	0%	\$0	0%	\$0	100%	\$5,750	100%
38	AT 4 - Vault	Vault	1	8"Con, 2" Asf.	\$0	0	\$0	\$36.43	\$0	0%	\$0	0%	\$0	0%	\$0	0%
38	AT 5	TRN	1	8"Con, 2" Asf.	\$0	136	\$796	\$36.43	\$5,750	0%	\$0	0%	\$0	100%	\$5,750	100%
38	AT 6	TRN	1	8"Con, 2" Asf.	\$0	0	\$0	\$36.43	\$0	0%	\$0	0%	\$0	100%	\$0	100%

JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

Project	TJPA Joint Trench - Contract No. 07-03-Util-000
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ABBREVIATIONS
JT **Joint trench**
PG **PG&E Electric Trench**
AT **AT&T Trench**
PG(Elec.&Gas) **PG&E Electric & Gas Joint Trench**

Cost Assembly	Section Name	Type	Qty.	New Surface	Curb & Gutter (A)	Trench Area (B)	Saw Cutting (C)	Unit Cost/SF (D)	Total (A+C)+(B*D)	PG&E Electric		PG&E Gas		AT&T		
										%	TOTAL	%	TOTAL	%	TOTAL	% TOTAL
38	JT 6	TRN	1	8"Con, 2" Asf.	\$4,315	590	\$2,761	\$36.43	\$28,570	33.33%	\$9,522	33.33%	\$9,522	33.33%	\$9,522	100%
38	AT 7	TRN	1	8"Con, 2" Asf.	\$0	16	\$94	\$36.43	\$676	0%	\$0	0%	\$0	100%	\$676	100%
38	JT 7	TRN	1	8"Con, 2" Asf.	\$567	61	\$363	\$36.43	\$3,166	33.33%	\$1,055	33.33%	\$1,055	33.33%	\$1,055	100%
38	AT 8	TRN	1	8"Con, 2" Asf.	\$0	24	\$140	\$36.43	\$1,015	0%	\$0	0%	\$0	100%	\$1,015	100%
38	PG 12 & 15 (Elec.+Gas)	TRN	1	8"Con, 2" Asf.	\$841	115	\$538	\$36.43	\$5,569	50%	\$2,784	50%	\$2,784	0%	\$0	100%
38	PG 13	TRN	1	8"Con, 2" Asf.	\$1,024	100	\$655	\$36.43	\$5,331	100%	\$5,331	0%	\$0	0%	\$0	100%
38	PG 14 - Vault	Vault	1	8"Con, 2" Asf.	\$0	0	\$0	\$36.43	\$0	0%	\$0	0%	\$0	0%	\$0	0%
38	PG 16 (Elec.+Gas)	TRN	1	8"Con, 2" Asf.	\$3,511	480	\$2,246	\$36.43	\$23,244	50%	\$11,622	50%	\$11,622	0%	\$0	100%
38	PG 17	TRN	1	8"Con, 2" Asf.	\$146	18	\$94	\$36.43	\$896	100%	\$896	0%	\$0	0%	\$0	100%
38	PG 18 (Elec.+Gas)	TRN	1	8"Con, 2" Asf.	\$2,011	275	\$1,287	\$36.43	\$13,317	50%	\$6,658	50%	\$6,658	0%	\$0	100%
38	PG 19	TRN	1	8"Con, 2" Asf.	\$146	16	\$94	\$36.43	\$823	100%	\$823	0%	\$0	0%	\$0	100%
38	PG 20 (Elec.+Gas)	SSTR	1	8"Con, 2" Asf.	\$8,448	1155	\$5,405	\$36.43	\$55,930	50%	\$27,965	50%	\$27,965	0%	\$0	100%
Vaults - Site Demolition and Restoration Detail including Vault Roof Slab and Manhole Covers																
38+39	PG 6	Vault	1	8"Con, 2" Asf.	\$347	163	\$351	\$36.43	\$9,055	100%	\$9,055	0%	\$0	0%	\$0	100%
38+40	AT 4	Vault	1	8"Con, 2" Asf.	\$256	143	\$281	\$36.43	\$7,538	0%	\$0	0%	\$0	100%	\$7,542	100%
38+41	PG 14	Vault	1	8"Con, 2" Asf.	\$329	165	\$328	\$36.43	\$8,828	100%	\$8,828	0%	\$0	0%	\$0	100%
Total						6657			\$314,556		\$151,511		\$90,504		\$72,537	

JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

Project	TJPA Joint Trench - Contract No. 07-03-Util-000
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ABBREVIATIONS

JT **Joint trench**

PG **PG&E Electric Trench**

AT **AT&T Trench**

PG(Elec.&Gas) **PG&E Electric & Gas Joint Trench**

CONCRETE ENCASEMENT FOR CONDUITS AND BELL HOLES - Costs are allocated to specific agency.															
Trench Section Name	Cross Section Area of Pipe [SF]	Vol. of Pipe [CY]	Length [F]	Width [F]	Depth [F]	Total Qty less Pipes [CY]	Unit Price	Total	PG&E Electric		PG&E Gas		AT&T		
									%	TOTAL	%	TOTAL	%	TOTAL	% TOTAL
PG1	0.89	1.3	40.50	5.00	1.00	6.47	\$377.69	\$2,442	100%	\$2,442	0%	\$0	0%	\$0	100%
PG 2 - GAS	0.00	0.0	0.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
PG 3	0.89	0.6	17.00	5.00	1.00	2.71	\$377.69	\$1,025	100%	\$1,025	0%	\$0	0%	\$0	100%
PG 4	0.79	0.6	19.00	3.20	1.00	1.78	\$377.69	\$674	100%	\$674	0%	\$0	0%	\$0	100%
PG 5	1.68	2.2	35.00	4.13	1.88	8.28	\$377.69	\$3,128	100%	\$3,128	0%	\$0	0%	\$0	100%
PG 6 - Vault	0.00	0.0	0.00	0.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
PG 7	1.68	3.1	50.00	3.50	2.17	11.48	\$377.69	\$4,336	100%	\$4,336	0%	\$0	0%	\$0	100%
PG 8 - GAS	0.00	0.0	15.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
PG 9A	0.89	0.7	20.00	2.87	1.50	2.65	\$377.69	\$1,002	100%	\$1,002	0%	\$0	0%	\$0	100%
PG 9B	0.79	1.0	35.00	1.96	1.96	4.16	\$377.69	\$1,571	100%	\$1,571	0%	\$0	0%	\$0	100%
JT1A	0.89	0.6	17.50	2.87	2.17	3.62	\$377.69	\$1,369	100%	\$1,369	0%	\$0	0%	\$0	100%
JT1B	1.68	5.2	83.00	3.00	2.17	15.56	\$377.69	\$5,877	100%	\$5,877	0%	\$0	0%	\$0	100%
PG 10	0.45	0.1	6.00	2.00	1.00	0.36	\$377.69	\$137	100%	\$137	0%	\$0	0%	\$0	100%
AT 1	0.00	0.0	120.00	3.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
JT 2A	1.23	1.3	28.50	3.00	1.88	4.88	\$377.69	\$1,845	100%	\$1,845	0%	\$0	0%	\$0	100%
PG 11	0.45	0.1	6.00	2.00	1.00	0.36	\$377.69	\$137	100%	\$137	0%	\$0	0%	\$0	100%
JT 2B	0.79	0.4	14.00	3.00	1.04	1.27	\$377.69	\$480	100%	\$480	0%	\$0	0%	\$0	100%
AT 2	0.00	0.0	11.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
JT 3	0.79	0.2	7.50	3.00	1.04	0.68	\$377.69	\$257	100%	\$257	0%	\$0	0%	\$0	100%
JT 4	0.79	0.9	32.00	3.00	1.04	2.91	\$377.69	\$1,097	100%	\$1,097	0%	\$0	0%	\$0	100%
JT 5	0.79	1.0	35.00	3.00	1.04	3.18	\$377.69	\$1,200	100%	\$1,200	0%	\$0	0%	\$0	100%
AT 3	0.00	0.0	34.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
AT 4 - Vault	0.00	0.0	0.00	0.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
AT 5	0.00	0.0	34.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
AT 6	0.00	0.0	0.00	2.54	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
JT 6	0.79	3.4	118.00	3.00	1.04	10.71	\$377.69	\$4,046	100%	\$4,046	0%	\$0	0%	\$0	100%
AT 7	0.00	0.0	4.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
JT 7	0.79	0.5	15.50	1.96	1.96	1.84	\$377.69	\$696	100%	\$696	0%	\$0	0%	\$0	100%
AT 8	0.00	0.0	6.00	2.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
PG 12 & 15 (Elec.+Gas)	0.79	0.7	23.00	3.00	1.04	2.09	\$377.69	\$789	100%	\$789	0%	\$0	0%	\$0	100%
PG 13	0.41	0.4	28.00	1.58	1.45	2.05	\$377.69	\$774	100%	\$774	0%	\$0	0%	\$0	100%
PG 14 - Vault	0.00	0.0	0.00	0.00	0.00	0.00	\$377.69	\$0	100%	\$0	0%	\$0	0%	\$0	100%
PG 16 (Elec.+Gas)	1.49	5.3	96.00	3.00	2.17	18.71	\$377.69	\$7,067	100%	\$7,067	0%	\$0	0%	\$0	100%
PG 17	0.70	0.1	4.00	2.50	1.00	0.28	\$377.69	\$106	100%	\$106	0%	\$0	0%	\$0	100%
PG 18 (Elec.+Gas)	0.79	1.6	55.00	3.00	1.04	4.99	\$377.69	\$1,886	100%	\$1,886	0%	\$0	0%	\$0	100%
PG 19	0.79	0.1	4.00	2.00	1.00	0.19	\$377.69	\$71	100%	\$71	0%	\$0	0%	\$0	100%
PG 20 (Elec.+Gas)	1.22	10.4	231.00	3.00	1.88	39.74	\$377.69	\$15,009	100%	\$15,009	0%	\$0	0%	\$0	100%
BELL HOLES FOR PG&E GAS															
						Qty	Unit Price								
						1.00	\$3,219.10	\$3,219	0%	\$0	100%	\$3,219	0%	\$0	100%
						4.00	\$2,617.15	\$10,469	0%	\$0	100%	\$10,469	0%	\$0	100%
						155.98		\$70,710		\$57,022		\$13,688		\$0	

JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

Project	TJPA Joint Trench - Contract No. 07-03-Util-000
----------------	--

ABBREVIATIONS

JT **Joint trench**

PG **PG&E Electric Trench**

AT **AT&T Trench**

PG(Elec.&Gas) **PG&E Electric & Gas Joint Trench**

MISCELLANEOUS : Dewatering, Traffic Control etc.. (to be shared proportionally, Lengthwise between the joint trench participants)													
Description of Task	Total Length [F]	Area [SF]	Unit Price [\$/LF]	Total	PG&E Electric		PG&E Gas		AT&T		% TOTAL		
					%	TOTAL	%	TOTAL	%	TOTAL			
Traffic Control	1245		\$74.25	\$92,404	64%	\$59,309	17%	\$15,484	19%	\$17,612	100%		
Dewatering	1245		\$23.04	\$28,673	64%	\$18,404	17%	\$4,805	19%	\$5,465	100%		
Cover plates				\$110,400	64%	\$70,859	17%	\$18,499	19%	\$21,041	100%		
Survey crew				\$40,000	64%	\$25,674	17%	\$6,703	19%	\$7,624	100%		
Pot holes				\$10,000	64%	\$6,418	17%	\$1,676	19%	\$1,906	100%		
Temporary Facilities			LS	\$60,000	64%	\$38,510	17%	\$10,054	19%	\$11,436	100%		
Existing Pipe Temporary Supports (Paid for by Utility Company)			LS	\$0	0%	\$0	0%	\$0	0%	\$0	0%		
Asphalt Wearing Surface 2" Thick		11900	\$2.10	\$24,990	33%	\$8,329	33%	\$8,332	33%	\$8,329	100%		
Testing soil and concrete - Shared Equally				\$22,304	33%	\$7,434	33%	\$7,436	33%	\$7,434	100%		
				\$388,771		\$234,937		\$72,988		\$80,846			

FORM B SUMMARY								
Description	TOTAL	PG&E Electric TOTAL	PG&E Gas TOTAL	AT&T TOTAL	% TOTAL			
TRENCHING AND VAULT EXCAVATION	\$245,862	\$174,268	\$31,632	\$39,962				
SITE DEMOLITION & RESTORATION DETAIL	\$314,556	\$151,515	\$90,504	\$72,537				
PIPE & CONDUIT INSTALLATION	\$361,126	\$265,775	\$25,049	\$70,302				
EMBEDMENT CONCRETE FOR CONDUITS AND BELL HOLES	\$70,710	\$57,022	\$13,688	\$0				
MISCELLANEOUS (From Above - Dewatering, Traffic Control etc)	\$388,771	\$237,817	\$70,541	\$80,413				
SUBTOTAL	\$1,381,025	64%	\$886,398	17%	\$231,414	19%	\$263,214	100%
MOBILIZATION 5%	\$69,749	64%	\$44,639	17%	\$11,857	19%	\$13,252	
SUBTOTAL INCLUDING MISCELLANEOUS	\$1,450,774		\$931,037		\$243,271		\$276,466	
SHIFT WORK REQUIREMENTS / OVERTIME	\$84,358	64%	\$54,137	17%	\$14,145	19%	\$16,076	100%
DPW RESTRICTION ON WORK HOURS	\$84,358	64%	\$54,137	17%	\$14,145	19%	\$16,076	100%
CONSTRUCTION ADMINISTRATION & DESIGN FEE @ 15%	\$217,616	33%	\$72,538	33%	\$72,538	33%	\$72,538	100%
GRAND TOTAL OF COST DISTRIBUTION	\$1,837,106	60.52%	\$1,111,851	18.73%	\$344,100	20.75%	\$381,155	100%

JOINT TRENCH FORM B, CONSTRUCTION COST AGREEMENT

13-Sep-10

<i>Project</i>	TJPA Joint Trench - Contract No. 07-03-Util-000
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ABBREVIATIONS

JT *Joint trench*
PG *PG&E Electric Trench*
AT *AT&T Trench*
PG(Elec.&Gas) *PG&E Electric & Gas Joint Trench*

Basis & Assumptions

- 1 All costs are in Mid 2010 Dollars.
- 2 All Excavated Materials are assumed to be Non-Hazardous.
- 3 All PG&E Electrical conduits are encased in concrete.
- 4 Costs in this estimate are generally taken from the RS Means & other local bids, adjusted for 2010 & San Francisco.
- 5 Used Swell Factor 40% on excavated material.
- 6 Cost for abandon, leave in place facilities has not been included in this estimate
- 7 Shoring is provided for all trenches deeper than 60 inches.
- 8 The Construction Contingency and Project Reserves are not included in the estimate above.

AUTHORIZATION

AT&T

Date

PG&E Electrical

Date

PG&E Gas

Date

SCHEDULE OF BID PRICES
TG04.5.1 Minna Street – sewer, gas, joint trench

B... *Substantial modifications made to the bid form per addendum B ...B*

C... See added line items for Mobilization and for Police Allowance as required per revised specification section 00 10 20/APB-1 ...C

Name of Bidder: Trinet Construction Inc

The undersigned, having examined all referenced documents and the Drawings, understanding the terms and conditions of the Contract Documents and the local conditions affecting the performance and costs of the Work, and having fully inspected the Site in all its particulars, hereby proposes and agrees to fully perform the Work as indicated on the Drawings and in accordance with the requirements of the Contract Documents within the time stated therein, and for the following price(s):

B... All bid prices should include applicable mark ups to that specific line item ...B

Specification Section	Item Description	Unit	Estimated Quantity	Productivity (crew hrs/unit)	Bid Price
31 23 16	Subsurface Investigation - Investigation Trenches - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Backfill, Replace pavement section at trench Traffic Control	LS	3	45000	135000
31 23 16	Subsurface Investigation - Pothole - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Backfill, Replace pavement section at trench, Traffic Control	EA	0	5000	0
02 41 00 03 30 10 31 23 10 32 12 17	Relocate (E) Street Light - Remove and relocate street light as shown on drawings, including but not limited to conduit, feeders, base as necessary for complete operational system, Traffic Control	EA	3	25000	75,000
02 41 00	Remove & Salvage (E) Street Light - Remove and salvage streetlight as shown on drawings	EA	2	20000	40,000
02 41 00	Remove & Salvage (E) Traffic Signal - Remove and Salvage Traffic Signal as shown on the drawings	EA	10	9000	90 000

03 30 10 31 23 10 31 40 10 32 12 17 33 11 00 33 11 60	Connect Water Lateral to New Water Main - Renew (L) - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Install, Backfill, Replace pavement section at trench, cleaning, Testing, Cathodic Protection, Traffic Control	EA	1	1500	1500
03 30 10 31 23 10 31 40 10 32 12 17 33 11 00 33 11 60	Connect Water Lateral to (E) Cistern - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Install, Backfill, Replace pavement section at trench, cleaning, Testing, Cathodic Protection, Traffic Control	EA	1	4000	4000
33 11 00	Install Water Cap - Assume open trench from other operations	EA	2	300	600
02 41 00 03 30 10 31 23 10 31 40 10 32 12 17	Demo (E) Sewer Pipes - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Demo & Disposal, Backfill, Replace pavement section at trench, Traffic Control	LF	931	70	65170
03 30 10 31 23 10 32 12 17 33 31 10 31 40 10	Install 10" VCP Sewer - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Install, Backfill, Replace pavement section at trench, Hydrocleaning, Traffic Control	LF	121	550	66550
03 30 10 31 23 10 33 31 10 31 40 10 32 12 17	Install 18" VCP Sewer - Inc but not limited to: Sawcut, AC removal & disposal; Excavation, Pipe Install, Backfill, Replace pavement section at trench, Hydrocleaning; Traffic Control	LF	125	750	93750
03 30 10 31 23 10 33 31 10 31 40 10 32 12 17	Install 24" VCP Sewer - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Install, Backfill, Replace pavement section at trench, Hydrocleaning, Traffic Control	LF	765	1000	765,000
03 11 00 03 30 10 03 40 10 31 23 10 33 31 10 31 40 10 32 12 17	Install Sewer Manhole - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Install, Backfill, Replace pavement section at trench, Hydrocleaning, Traffic Control	EA	9	15000	135000
03 11 00 03 30 10 03 40 10 31 23 10 33 31 10 31 40 10 32 12 17	Install Sewer Catchbasin - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Install, Backfill, Replace pavement section at trench, Hydrocleaning, Traffic Control	EA	8	10000	80000
03 30 10 31 23 10 33 31 10 31 40 10	Connect (E) Sewer Lateral to New Sewer Pipe - Assume open trench from other operations	EA	5	4000	20000

31 23 10 31 40 10 32 12 17 33 51 00 33 71 00	Joint Trench Excavate and Backfill Trench – conduit and gas - Inc but not limited to: Sawcut, AC removal & dispoal, Excavation, Backfill, Replace pavement section at trench, Traffic Control	LF	1200	215	258000
31 23 10 31 40 10 32 12 17 33 51 00 33 71 00	Joint Trench Excavate and Backfill Trench – where gas only - Inc but not limited to: Sawcut, AC removal & dispoal, Excavation, Backfill, Replace pavement section at trench, Traffic Control	LF	14	100	1400
33 71 00	Elec New 2" Pipe in Joint Trench - Assume open trench from other operations	LF	348	6	2088
33 71 00	Elec New 4" Pipe in Joint Trench - Assume pipe install in open trench	LF	1144	12	13728
33 71 00	Elec New 5" Pipe in Joint Trench - Assume pipe install in open trench	LF	2351	15	35265
33 71 00	Elec New 6" Pipe in Joint Trench - Assume pipe install in open trench	LF	3520	20	70400
33 71 00	Tele New 4" Pipe in Joint Trench - Assume pipe install in open trench	LF	3150	12	37800
33 51 00	Gas New 4" Pipe in Joint Trench - Assume pipe install in open trench	LF	738	50	36900
33 51 00	Concrete Encase Elec Conduit - Assume pipe install in open trench	LS	800	100	80000
33 51 00	Install Gas Pipe Valve - Assume pipe install in open trench	EA	0	-	-
31 23 10 31 40 10 32 12 17 33 51 00	Install Gas Cap - Assume pipe install in open trench	EA	2	2000	4000

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Add3

03 40 10 03 42 20 33 71 00	Install PG&E manholes at joint Trench - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	EA	2	18100	36200
03 40 10 03 42 20 33 71 00	Install AT&T manholes at joint Trench - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	EA	1	18100	18100
02 41 00 32 12 17 31 23 10	Demo (E) Elec Duct - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	LF	1800	30	54600
02 41 00 32 12 17 31 23 10	Demo Elec Manhole - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	EA	5	8000	40000
02 41 00 31 23 10 32 12 17	Demo (E) Telecom Duct - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Pipe Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	LF	600	50	30,000
02 41 00 31 23 10 32 12 17	Demo Telecom Manhole - Inc but not limited to: Sawcut, AC removal & disposal, Excavation, Demo & Disposal, Backfill, replace pavement section at trench, Traffic Control	EA	2	16000	32000
33 31 10	Television Inspection of Existing Sewers	LS	1	5000	5000
32 12 17	Pavement Restoration - Revpave of street outside trench areas as required by City of San Francisco regulations	LS	21000	48	1008000
C...					
01 15 05	Mobilization	LS	NA	NA	613000
00 10 20 APB-1	Allowance for City of San Francisco uniformed police officers	LS	NA	NA	\$ 100,000
					...C

			Engineer Estimated Quantity	Unit Price by Trade Sub contractor	Bid Price
31 23 16	Soil Disposal Premium for Hazardous Material Class I - Premium for Transport and Disposal - Quantity to be adjusted as appropriate	TON	6000	45	270,000
31 23 16	Soil Disposal Premium for Hazardous Material Class II - Premium for Transport and Disposal - Quantity to be adjusted as appropriate	TON	6000	15	90,000

TOTAL 4,796,301

The Bidder shall furnish a price for all Bid items in the Bid Schedule and failure to do so will render the Bid as non-responsive and will be cause for its rejection. In determining the successful Bidder, only the total of all Bid items will be considered. No award will be made based on individual bid items.

In case of discrepancy between the sum of Bid item amounts and the Grand Total Bid Price, the sum of said amounts shall prevail.

In case of discrepancy between words and figures, the words shall prevail.

Bidder acknowledges and agrees that this Bid, if not withdrawn prior to the scheduled time for receipt of Bids, shall not be withdrawn for a period of 90 days thereafter.

Grand Total Bid Price: \$ 4,796,301 (from Total of SCHEDULE OF BID PRICES)

In Written Words: Four Million Seven Hundred and ninety six thousand three hundred and one
dollar