



# Phase 1 Budget Update

July 7, 2015

## Transbay Transit Center

**TJPA**



# Phase 1 Construction Cost Update (\$millions)

## Awarded to Date (direct cost)\*

Transit Center	\$	877.67
Utility Relocation	\$	20.84
Demolition Old Terminal	\$	15.48
Temporary Terminal	\$	20.65
Bus Ramp	\$	56.23
<b>Subtotal Award through May 2015</b>		<b>\$ 990.87</b>
<b>Recommended for Awarded July 2015</b>		<b>\$ 150.76</b>
<b>Total Award through July 2015</b>		<b>\$ 1,141.63</b>

\*Amounts include executed change orders

# Phase 1 Budget Update

(\$millions)

## Remaining TTC Construction Awards (direct cost)

Budget	\$ 163.84
CM/GC Estimate/Known Bid Results	\$ (303.52)
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Balance	\$ (139.68)
Additional CM/GC Costs	\$ (22.42)
Soft Costs: Construction Management Oversight	\$ (26.70)
Bus Storage	\$ (3.50)
Replenishment of Construction Contingency/Program Reserve*	\$ (71.91)
Various Program Savings	\$ 17.28
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<b>Total Additional Budget Need</b>	<b>\$ (246.92)</b>

\*Amount based on 30% top down (FTA risk model) risk confidence level

# Remaining Construction Work to be Awarded (\$millions)

<b>Future Work to be Awarded</b>		<b>Budgeted Amount</b>	<b>CM/GC Estimate (Feb 2014)</b>	<b>Current Estimate or Bid Result</b>
7.6	Concrete Topping Slabs /Bus Crash Rail/Exp Joints	\$ 9.13	\$ 13.63	\$ 27.68
<b>8.2R</b>	<b>Exterior Awning Construction (W1)</b>	<b>\$ 33.97</b>		<b>\$ 35.26*</b>
8.6R	Metal Ceiling (W-14)	\$ 18.86	\$ 27.87	\$ 28.30*
<b>12.1</b>	<b>Civil/Sitework at Grade/Ground Level Landscaping</b>	<b>\$ 17.84</b>	<b>\$ 19.70</b>	<b>\$ 16.77</b>
<b>16.0</b>	<b>Interiors/Finishes</b>	<b>\$ 20.86</b>	<b>\$ 20.91</b>	<b>\$ 39.03</b>
17.1	Signage/Graphics/Directory System Construction	\$ 3.47	\$ 3.75	\$ 3.47*
<b>8.11R</b>	<b>Glass Curtain Walls/Skylights/Glass Floors</b>	<b>\$ 26.81</b>	<b>\$ 40.44</b>	<b>\$ 59.71*</b>
8.7	Glass Floors (W12&13)	\$ 4.44	\$ 5.02	\$ 10.00
TBD	Metal Column Covers & Other	\$ 4.73		\$ 6.50
TBD	IP Network (award spring 2016)	\$ 16.56		\$ 20.01
TBD	OCS & Traction Control (Muni)	\$ 5.00		\$ 7.85
TBD	Art Work	\$ 2.18		\$ 2.18
	<b>Total</b>	<b>\$ 163.84</b>		<b>\$ 256.75</b>
	<b>Budget</b>			<b>\$ 163.84</b>
	<b>Balance</b>			<b>\$ 92.91</b>
<b>13.1</b>	<b>Rooftop Park (Landscaping &amp; Hardscaping)</b>			<b>\$ 33.28</b>
TBD	Rooftop Park (MEPs)			\$ 13.50
	<b>Total</b>			<b>\$ 46.78</b>
<b>Known Costs</b>			<b>Balance</b>	<b>\$ 139.68</b>

\*Design Build/Assist



# CM/GC Bid Analysis

# **Topping Slabs/Bus Crash Rail/Expansion Joints Scope of Work**

- Concrete topping slabs, integral footings, curbs, stem walls, ramps, and all associated accessories
- Concrete protection slabs, equipment pads, and curbs
- Concrete Bus Deck crash rail
- All expansion and seismic joints within concrete



# Topping Slabs/Bus Crash Rail/Expansion Joints Bid Summary

Bid Date:	5/7/2015
Budget:	\$9.13M
CM/GC Estimate:	\$13.63M
SBE Goal:	20%
Prequalified Bidders:	7
Bids Received:	3
Bid:	\$27.68M - \$32.56M

# Topping Slabs/Bus Crash Rail/Expansion Joints Bid Results

	Concrete North Inc.	Shimmick Construction Company Inc.	Urata & Sons Concrete, Inc.	Budget	CM/GC Estimate
Bid Amount	\$27.68M	\$30.32M	\$32.56M	\$9.13M	\$13.63M





**TG07.6:  
Topping Slabs/Bus Crash  
Rail/Expansion Joints  
CM/GC Bid Variance Analysis**

The difference between the CM/GC's estimate and the low bid of approximately \$14 million is due to the following factors:

- Scope that was added to or shifted to this trade package from other trade packages and not accounted for in the estimate: \$5 million
- The unit cost used to estimate the cost of the expansion joints was not appropriate for the type of joints used for the Transit Center project: \$4 million
- Other factors: \$5 million.



**Topping Slabs/Bus Crash  
Rail/Expansion Joints  
CM/GC Bid Variance Analysis**

- Added scope/ transferred scope \$5 million:
  - Elevated slabs
  - Polished Concrete
  - Curb and slab at prefabricated buildings
  - Mechanical housekeeping pads
  - Added ramps with curbs/walls
  - Added reinforcing and increased slab thickness

# Interiors/Finishes Scope of Work

Concrete Masonry Units

Drywall & Metal Framing

Building Insulation

Clay Panel Cladding

Bird Deterrent

Ballistic Resistant Panels

Acoustic Ceiling Tiles & Wall  
Treatments

Painting

Doors/Frames/Hardware

Interior Architectural Woodwork &  
Countertops

Prefabricated Buildings

Final Cleaning

# TG16.0

## Interiors/Finishes

### Bid Summary

Bid Date:	5/21/2015
Budget:	\$20.86M
CM/GC Estimate:	\$20.82M
SBE Goal:	19%
Prequalified Bidders:	4
Bids Received:	3
Bid:	\$39.03M - \$47.74M

# TG16.0

## Interiors/Finishes

### Bid Results

	Skanska USA Building	S.J. Amoroso Construction Co.	West Bay Builders	Budget	CM/GC Estimate
Bid Amount	\$39.03M	\$45.66M	\$47.74M	\$20.86M	\$20.91M

# TG16.0: Interiors/Finishes CM/GC Bid Variance Analysis

Major components of the \$18.1M cost differential:

- Masonry Walls - costs \$4.8M higher than estimated
- Metal Framing & Drywall - costs \$11.67M higher than estimated
- Access Platform - added scope of \$1.24M



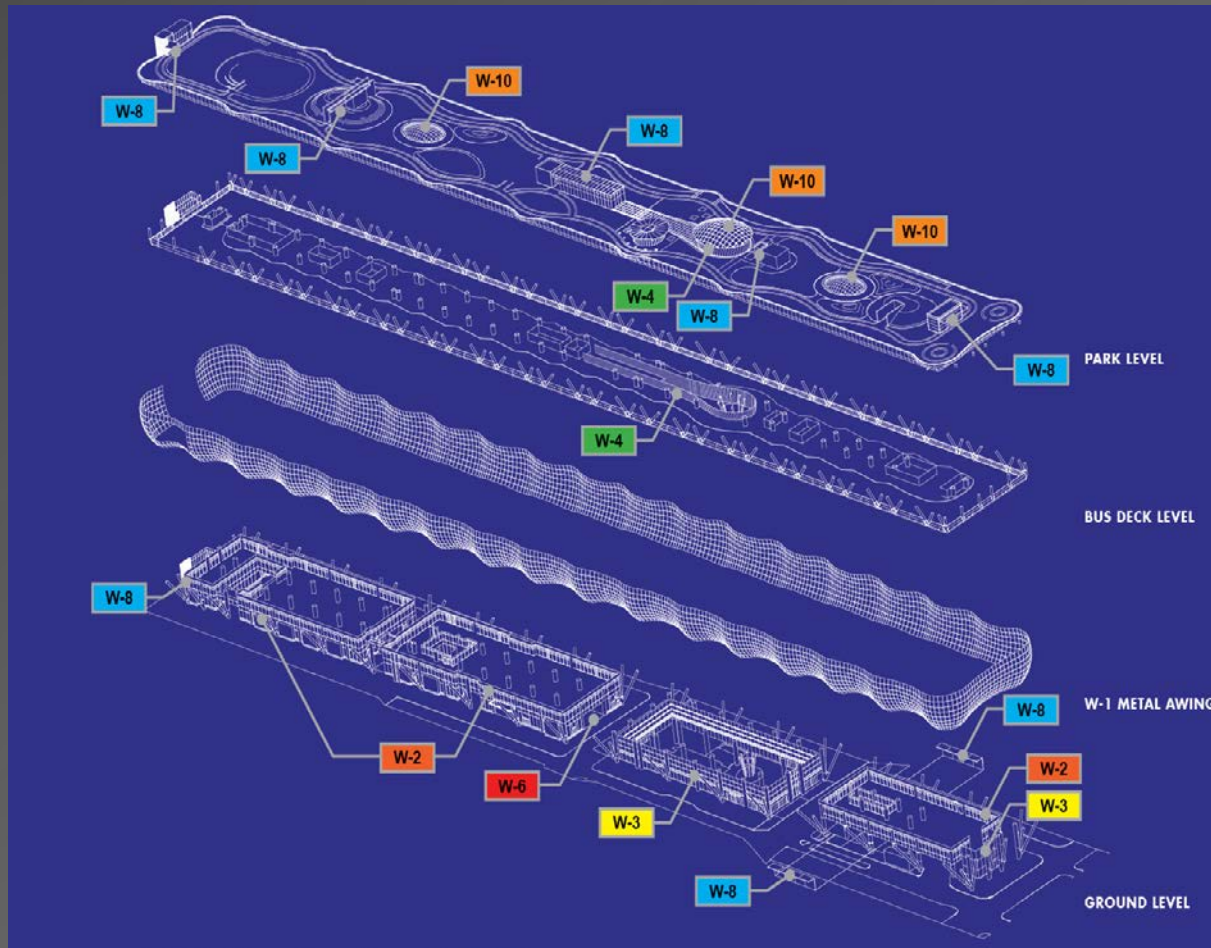
## CM/GC Bid Variance Analysis

This difference is due to the following factors:

- Quantities added to this trade package are not accounted for in the estimate: \$3 million
- Unit price increase/productivity impacts:
  - Labor productivity low in estimate: \$4.5 million
- Scaffolding for drywall missed in estimate: \$1.8 million
- Scope shifted to this trade package from other trade packages and not accounted for in the estimate: \$2.5 million

# TG08.11R Glass Curtain Walls & Skylights Scope of Work

- Construction services portion of a design-build contract to construct six different glazing systems at various locations throughout the Transit Center





# Glass Curtain Walls & Skylights Design Services Proposal Summary

<b>Cost Element</b>	<b>Crown Corr, Inc.</b>	<b>Woodbridge Glass, Inc.</b>
<b>Design Services of TG08.11R</b>	\$2,950,000	\$3,000,000
<b>Construction Fee</b> (% x estimated construction costs of \$23.5 million)	\$4,230,000 (18%)	\$5,000,000 (21.28%)
<b>Construction Overhead</b> (% x estimated construction costs of \$23.5 million)	\$2,820,000 (12%)	\$5,000,000 (21.28%)
<b>Total Proposal Price</b>	<b>\$10,000,000</b>	<b>\$13,000,000</b>



# Glass Curtain Walls & Skylights Price Proposal

	<b>Crown Corr Price Proposal</b>	<b>Budget</b>	<b>CM/GC Estimate</b>
<b>Amount</b>	\$59.7M	\$26.8M	\$40.5M

- Design awarded to Crown Corr in February 2015
- Systems now fully designed and priced

# Glass Curtain Walls & Skylights Price Proposal Summary

<b>Glass Curtain Walls and Skylight Systems:</b>	<b>Cost</b>
Direct Construction Cost Total	\$48,368,318
Construction Overhead (12% x Direct Construction Costs)	\$5,804,197
Construction Fee (13%* x Direct Construction Costs)	\$6,287,881
Retention Reduction Savings (retention reduced to 2.5% and released at 50% completion)	(\$750,000)
<b>Total Construction Cost</b>	<b>\$59,710,396</b>

\* Reduced from 18% submitted with their CCI's proposal.



# Glazing Systems Bid Variance Analysis

- Added glazed pop-outs at retail entrances \$2.7M
- DGC loading criteria \$3.8M
- Load transfer to structure \$2.5M
- Labor production/productivity \$3.6M
- Shortened time for material procurement \$1.5M
- Glass cost escalation of 20%



# Soft Costs

# Soft Costs

(\$millions)

Soft Costs	Budget (as of June 2015)	Revised Budget	Delta
Design	\$ 188.66	\$ 178.28	\$ 10.39
Construction Mgmt.	\$ 53.83	\$ 75.98	\$ (22.15)
Pre-Construction	\$ 31.27	\$ 31.27	\$ 0.00
Art	\$ 2.00	\$ 2.00	\$ 0.00
ROW	\$ 77.68	\$ 77.68	\$ 0.00
PMPC	\$ 101.45	\$ 101.45	\$ 0.00
Admin/Legal/Financial/etc.	\$ 124.65	\$ 122.29	\$ 2.36
<b>Total</b>	<b>\$ 579.53</b>	<b>\$ 588.94</b>	<b>\$ (9.41)</b>



# Risk Assessment

# Risk Model Results

Contingencies & Reserve Confidence Level	Bottom Up Risk Total Construction Contingency	Top Down Risk Total Construction Contingency
<b>30%</b>	<b>\$ 175</b>	<b>\$ 133</b>
35%	\$ 180	\$ 143
40%	\$ 184	\$ 156
45%	\$ 188	\$ 170
<b>50%</b>	<b>\$ 192</b>	<b>\$ 185</b>
55%	\$ 196	\$ 200
60%	\$ 201	\$ 217
65%	\$ 205	\$ 234
<b>70%</b>	<b>\$ 211</b>	<b>\$ 254</b>



# Contingencies & Reserve

- Recommended total contingencies and reserve consistent with 30% confidence level cost projections
- This will replenish the current contingency amount by \$71.9M, to a total amount of \$133.5M
- Recommended contingency level constitutes approximately 15% of remaining work after all existing known exposure is accounted for
- Recommended construction contingency level is consistent with CM/GC's assessment and CMO's recommendation
- Recommended construction contingency is reasonable given that bidding risk is minimal moving forward, construction is more than 50% complete, foundation work and train box construction is complete, and structural fabrication and erection risks are quantified

# Draft Phase 1 Budget with Risk Adjustment and Bids Known at 6/30/15

(\$millions)

**Phase 1 Budget - 30% Confidence Level**

	Budget (as of June 2015)	Revised Budget	Delta
TTC Construction*	\$ 1,041.43	\$ 1,181.11	\$ (139.68)
Bus Ramp*	\$ 56.23	\$ 56.23	\$ 0.00
Temp Terminal	\$ 20.65	\$ 20.65	\$ 0.00
Bus Storage*	\$ 15.95	\$ 19.45	\$ (3.50)
Utility Relocation	\$ 20.84	\$ 20.84	\$ (0.00)
Demolition	\$ 16.48	\$ 16.48	\$ 0.00
CM/GC Costs	\$ 86.65	\$ 109.01	\$ (22.42)
<b>Subtotal Construction</b>	<b>\$ 1,258.23</b>	<b>\$ 1,423.83</b>	<b>\$ (165.60)</b>
<b>Soft Costs</b>			
Design	\$ 188.66	\$ 178.28	\$ 10.39
Construction Mgmt	\$ 53.83	\$ 75.98	\$ (22.15)
Pre-Construction	\$ 31.27	\$ 31.27	\$ 0.00
Art	\$ 2.00	\$ 2.00	\$ 0.00
ROW	\$ 77.68	\$ 77.68	\$ 0.00
PMPC	\$ 101.45	\$ 101.45	\$ 0.00
Admin/Legal/Financial/etc.	\$ 124.65	\$ 122.29	\$ 2.36
<b>Subtotal Soft Costs</b>	<b>\$ 579.53</b>	<b>\$ 588.94</b>	<b>\$ (9.41)</b>
CM/GC Contingency	\$ 19.79	\$ 31.49	\$ (11.70)
Construction Contingency	\$ 36.34	\$ 67.45	\$ (31.11)
Program Reserve	\$ 5.50	\$ 34.60	\$ (29.10)
<b>Subtotal Contingencies &amp; Reserve</b>	<b>\$ 61.64</b>	<b>\$ 133.54</b>	<b>\$ (71.91)</b>
<b>Total Phase 1 Program</b>	<b>\$ 1,899.40</b>	<b>\$ 2,146.32</b>	<b>\$ (246.92)</b>

\*Budget includes design contingency and escalation

## Bus Storage

Budget:	\$15.95M
Updated Estimate:	<u>\$19.45M</u>
Balance:	(\$3.5 M)

Bus Storage could be built after TTC completion with little impact to TTC operations, for a total Phase 1 Budget savings of \$19.45M



# Funding

# Funding Need with Risk Adjustment and Bids Known at 6/30/15 (\$millions)

## Transbay Transit Center

	<b>30% Risk</b>
Current Budget	\$ 1,899.4
Current Estimate	\$ 2,146.3
<b>Amt of Additional Budget</b>	<b>\$ 246.9</b>
<b>Mitigation</b>	
Bus Storage	\$ (19.5)
Revised Budget Needed	\$ 227.5
<b>Revised Budget Total</b>	<b>\$ 2,126.9</b>
<b>Phase 1 Funding</b>	
Current budget fully funded	\$ 1,899.4
Timing of CFD availability during Phase 1	\$ (20.0)
Parcel F minimum bid price	\$ 160.0
<b>Total Funding</b>	<b>\$ 2,039.4</b>
30% Risk Level budget (mitigated)	\$ 2,126.9
<b>New Funding Need</b>	<b>\$ 87.5</b>



# Funding Plan

(\$millions)

Sources	Committed Funds	Potential Funds
Land Sales	\$ 510.0	\$ TBD
FRA Grants	\$ 402.7	
TIFIA/Bridge Loan	\$ 171.0	
FTA Grants	\$ 62.4	
FEMA Grants	\$ 0.1	\$ TBD
Regional Measures 1 & 2	\$ 197.4	
AB 1171	\$ 150.0	
San Francisco Prop K	\$ 139.0	
AC Transit Capital Contribution	\$ 39.0	
RTIP	\$ 10.2	
Miscellaneous Local	\$ 8.7	
One Bay Area Grant	\$ 6.0	
San Mateo Sales Tax	\$ 4.5	
Transit Center District Plan (Mello-Roos)	\$ 198.5	\$ TBD
Sponsorship	\$ -	\$ TBD
<b>Total Funds</b>	<b>\$ 1,899.4</b>	<b>\$ TBD</b>

Any increase to the Phase 1 budget must be fully funded to meet TIFIA/bridge loan lender requirements



# Next Steps



## July 2015

### Award critical trade packages (action item)

- TG12.1: Civil/Site Work at Grade/Ground Level Landscaping (\$16,765,000)
- TG08.2R: Exterior Awning-Construction Services (\$35,262,150)
- TG16.0: Interiors/Finishes (\$39,026,000)
- TG08.11R: Glass Curtain Walls and Skylights-Construction Services (\$59,710,396)
- Adopt a two month interim fiscal year budget for August (action item)
- Augment CMO contract (action item)
- Continue to work with City & County of San Francisco on funding

## September 2015

- Final budget for both Phase 1 update and Fiscal Year 2015-16 capital budget (action item)
- Award remaining trade packages except IT Network package (action items)





Transbay Transit Center

# Questions?

