

# Transbay Transit Center Phase I: Cost Review

Programming and Allocations Committee

September 9, 2015



METROPOLITAN  
TRANSPORTATION  
COMMISSION

# Summary of July Commission Action

- At its July 22<sup>nd</sup> meeting, the Commission:
  - Approved partially releasing MTC's interest in the 568 Howard property, making this small portion available for inclusion in a TJPA land sale known as Parcel F
  - Received an update from TJPA on a proposed budget increase to the Transbay Transit Center Phase 1 project

July 2013 Approved Budget	July 2015 Proposed Budget
\$1,899 M	\$2,146 M

- Directed staff to perform a project cost and risk review for both phases of the Transbay Transit Center project - to understand scope changes, cost increases

# Approach for Cost/Risk Review

## 1. Phase 1 Cost and Risk Review (Subject of today's presentation)

- Clarify project scope
- Assess cost exposure in two ways: cost review and risk review

## 2. Phase 2 Cost Review – An assessment of the Phase 2 scope, cost estimate, and delivery model

- Working in cooperation with TJPA staff and SF City staff

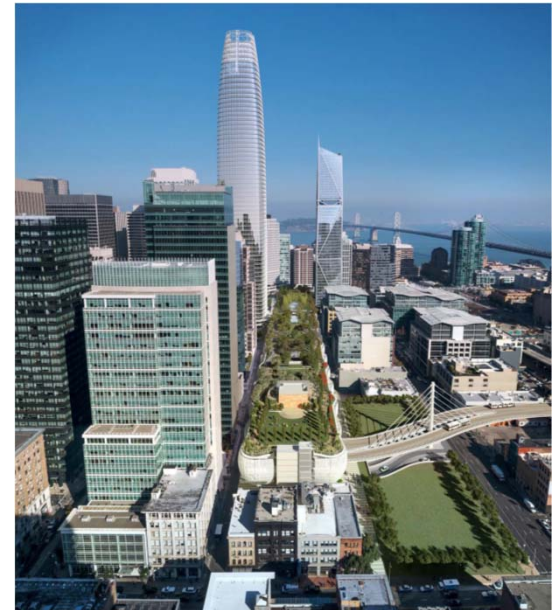
# Phase 1 Budget Update

- In July, TJPA staff proposed a budget revision identifying a \$247m funding shortfall
- Proposed covering part of shortfall with Parcel F sale
- Bus storage and rooftop park possibly delayed
- TJPA canceled the Parcel F auction, will work directly with prequalified firms
- Plan to award one construction contract in September, budget action likely later this fall

TTC Phase I Budget (\$ millions)			
Phase I Program	Current Budget	TJPA Staff Proposed Budget	Shortfall
Construction	\$ 1,258.23	\$ 1,423.83	\$ (165.60)
Soft Costs	\$ 579.53	\$ 588.94	\$ (9.41)
Contingencies/ Reserve	\$ 61.64	\$ 133.54	\$ (71.90)
<b>Total</b>	<b>\$ 1,899.40</b>	<b>\$ 2,146.31</b>	<b>\$ (247)</b>
<b>Potential Strategies to Address Shortfall</b>			
<i>Additional Funding</i>			
Parcel F Proceeds (Reassigned from Phase 2)			160
Other Fund Sources (Not committed)			86
<b>Sub total</b>			<b>247</b>
<i>Delay Scope</i>			
Rooftop Park			57
Bus Storage Facility			19
Reduce Program Reserves			11
<b>Sub total</b>			<b>87</b>

# Phase 1 Review: Scope

- Phase 1 includes design and construction of:
  - Transbay Terminal including Rooftop Park and Underground Train Box,
  - Temporary Terminal,
  - Bus Ramps, and
  - Bus Storage
- Plus Utility Relocation, Old Terminal Demolition, Right of Way Acquisition, and construction mgmt.
- 50 trade packages for Terminal and Bus Ramp construction
- Most major contracts have now been awarded or negotiated, except IT network and Bus Storage Facility
- Rooftop Park and Bus Storage may be delayed due to budget pressures



# Approach #1: Cost Review

- Scope of Review
  - Past differences between estimates and actual bids/change orders
  - Construction packages remaining to be awarded
  - Soft costs, Construction Manager/General Contractor (CM/GC) costs, and reserve/contingency levels
- Overall Findings
  - Past cost increases attributed to several factors
  - Recent bids have been 179% over estimates (total)
  - CM/GC contract has unusual features
  - Soft costs generally in line with expectations

# Cost Review Recommendations

- For contracts remaining to be awarded, add \$48 Million in contingency:
  - Apply a 30% minimum contingency to the contracts with known bids/costs but not yet awarded in 2015
  - Apply a 180% contingency to the IP Network contract (2016)
  - Apply a 5% contingency on the remaining soft cost budget of \$117 million
- Additional recommendations for cost control going forward:
  - Implement funding partners process to review and approve change orders.
  - Consider a Maximum Price Guarantee with CM/GC for the remaining construction contracts to ensure cost certainty.

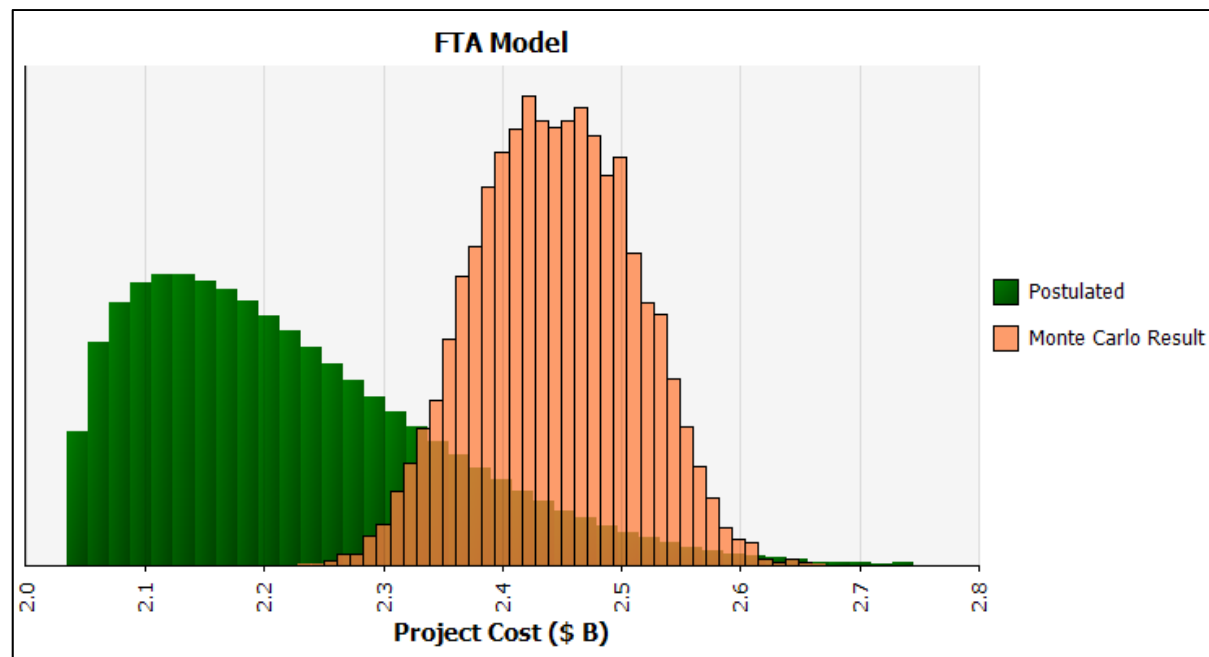
# Approach #2: Risk Review

- Scope of Review
  - Project risk management practices and models
  - Did not review all inputs to risk register or models
- Findings
  - Risk Register generally follows best practices, though risks having a cost impact do not appear to be quantified
  - TJPA uses two methods of quantitative risk modeling: “Top Down” and “Bottom Up” Cost Risk Analysis
  - Proposed budget is at a 30% confidence level; 50-80% generally more appropriate



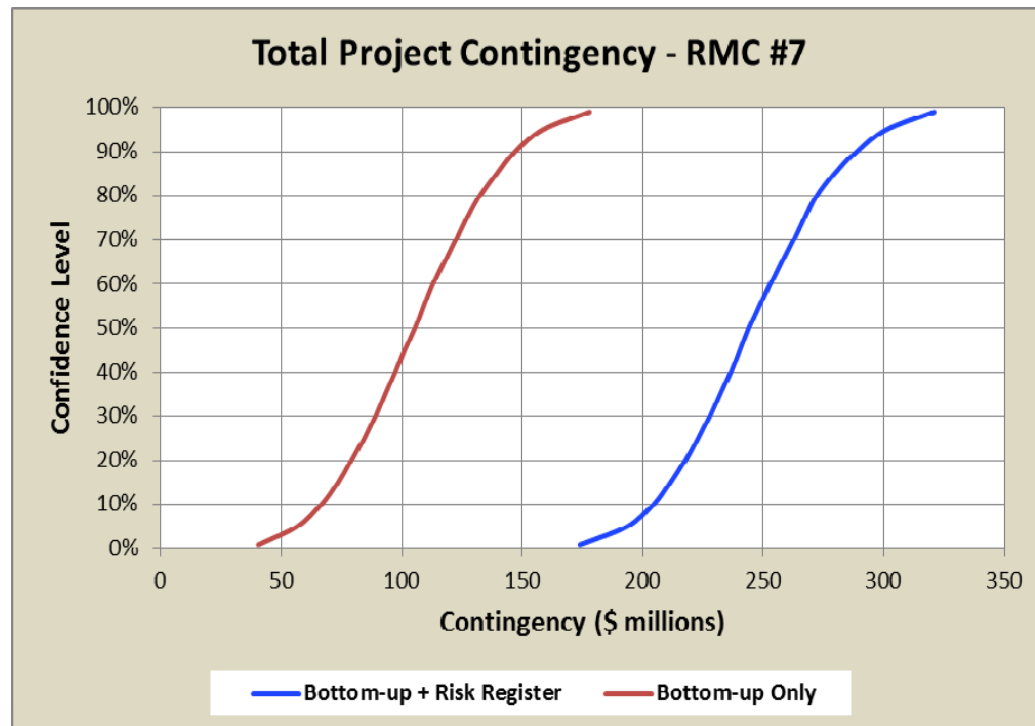
# Risk Review Findings

## Comparing Postulated Distribution and Computed Distribution



# Risk Review Findings

## Additional contingency based on risk models



# Risk Review Recommendations

- **Recommendations**

- Focus on “bottoms up” risk analysis model for contingency
- Consider a method of cost risk analysis that accounts for costs from the risk register
- Consider adding contingency at a higher confidence level, at least 50%

## **Additional Contingencies at Confidence Levels (\$ Millions)**

<b>Confidence Level</b>	<b>Bottom-up + Risk Register</b>	<b>Bottom-up Only</b>
<b>30%</b>	228	89
<b>50%</b>	244	105
<b>70%</b>	263	122

# Summary: Phase 1 Budget Exposure

- Based on both cost and risk analysis approaches, additional budget would be prudent

## Phase 1 Budget

	(\$ millions)
Approved budget (2013)	\$1,899
Proposed new request (July 2015, TJPA)	\$247
Proposed new total (July 2015, TJPA)	\$2,146
Potential additional exposure (Sept. 2015, MTC)	\$48-244
New Total	\$2,194-\$2,390

# Next Steps

- Receive feedback from this Committee
- Proceed with cost review of Transbay Transit Center Phase 2
- Continue to work with TJPA and funding partners to identify additional funding/financing and cost control strategies to successfully deliver full scope of Phase 1 project and be positioned to implement Phase 2