



# Construction Update

July 2017

## Transbay Transit Center

**TJPA**





## Transbay Transit Center

Western Zone  
Gridlines 1 to 10

Central Zone  
Gridlines 10 to 20

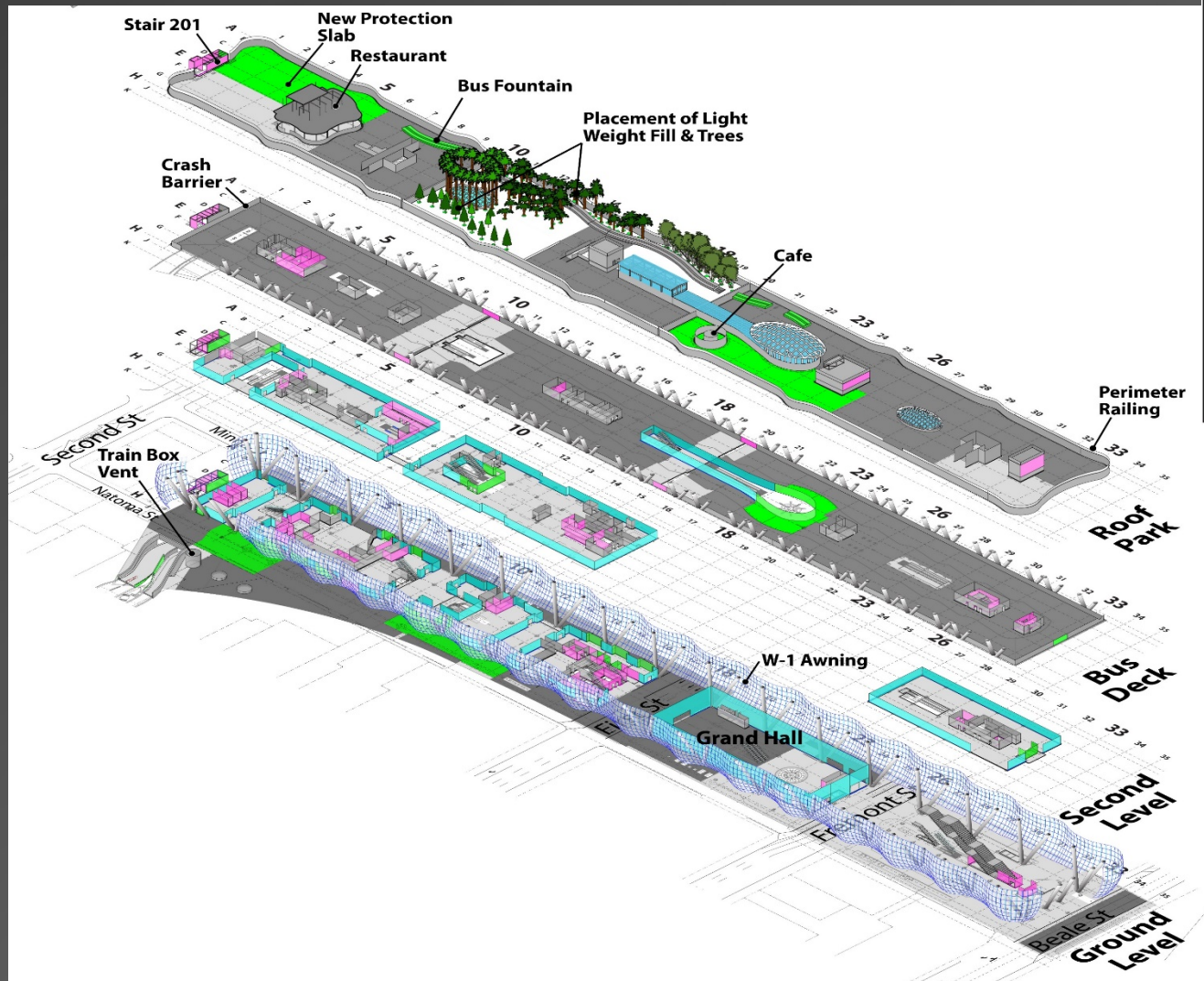
Eastern Zone  
Gridlines 20 to 35









# Project Overview

1. Construction Activity
2. Safety & Labor Statistics
3. Budget Overview
4. Contingency Cost
5. Schedule
6. Risks

## Transit Center – Upper Levels and Roof Park

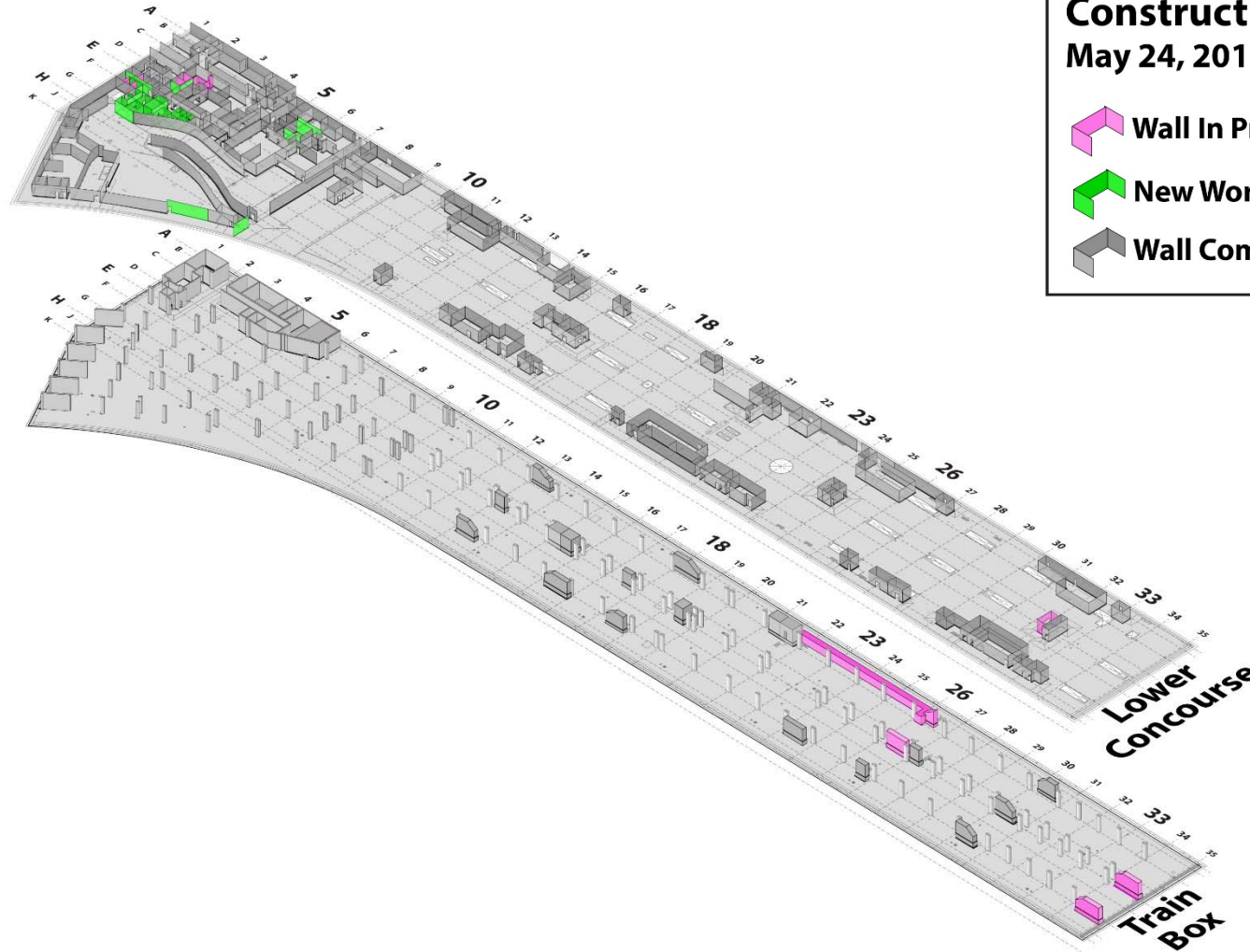


**Transbay Transit Center  
Construction Progress  
May 24, 2017 - June 30, 2017**

-  Wall In Progress
-  Wall Complete
-  Curtain Wall Complete
-  New Work Completed
-  Concrete Slab Complete
-  Concrete Slab In Progress



## Transit Center- Trainbox Lower Levels



**Transbay Transit Center  
Construction Progress  
May 24, 2017 - June 30, 2017**

-  Wall In Progress
-  New Work Completed
-  Wall Complete



### Transit Center - West (GL1-20)

- Rooftop waterproofing and protection is nearly complete.
- Rooftop landscaping and pathway construction underway.
- Bus Deck ceiling framing now complete.
- Metal stud framing of walls, gypsum board, and curtain wall systems install underway.
- Elevator and Escalator construction and enclosures install underway.
- Main Distribution Frame (MDF) Room and Intermediate Distribution Frame (IDF) Rooms are underway. Electric switchgear and transformer rooms near completion.
- Equipment rooms buildout in progress. (Fire water tanks, Pumps, HVAC Units)

### Transit Center - East (GL20-35)

- Rooftop waterproofing and protection is nearly complete.
- W1 Awning corners installed in June.
- Bus Deck ceiling framing underway.
- Light Column “Oculus” painting/coatings underway. Scaffold removed.
- Radiant Heating install has started at Grand Hall.
- Metal stud framing of walls, gypsum board, and curtain wall systems install underway.
- Elevator and Escalator construction and enclosures install underway.
- Main Electric Rooms are now under SFPUC jurisdiction.
- Intermediate Distribution Frame (IDF) Rooms are underway.
- Equipment rooms buildout in progress. (Pumps, Tanks installed, HVAC Units)



Transbay Transit Center

# Construction Activity June 2017





Transbay Transit Center

# Construction Activity June 2017



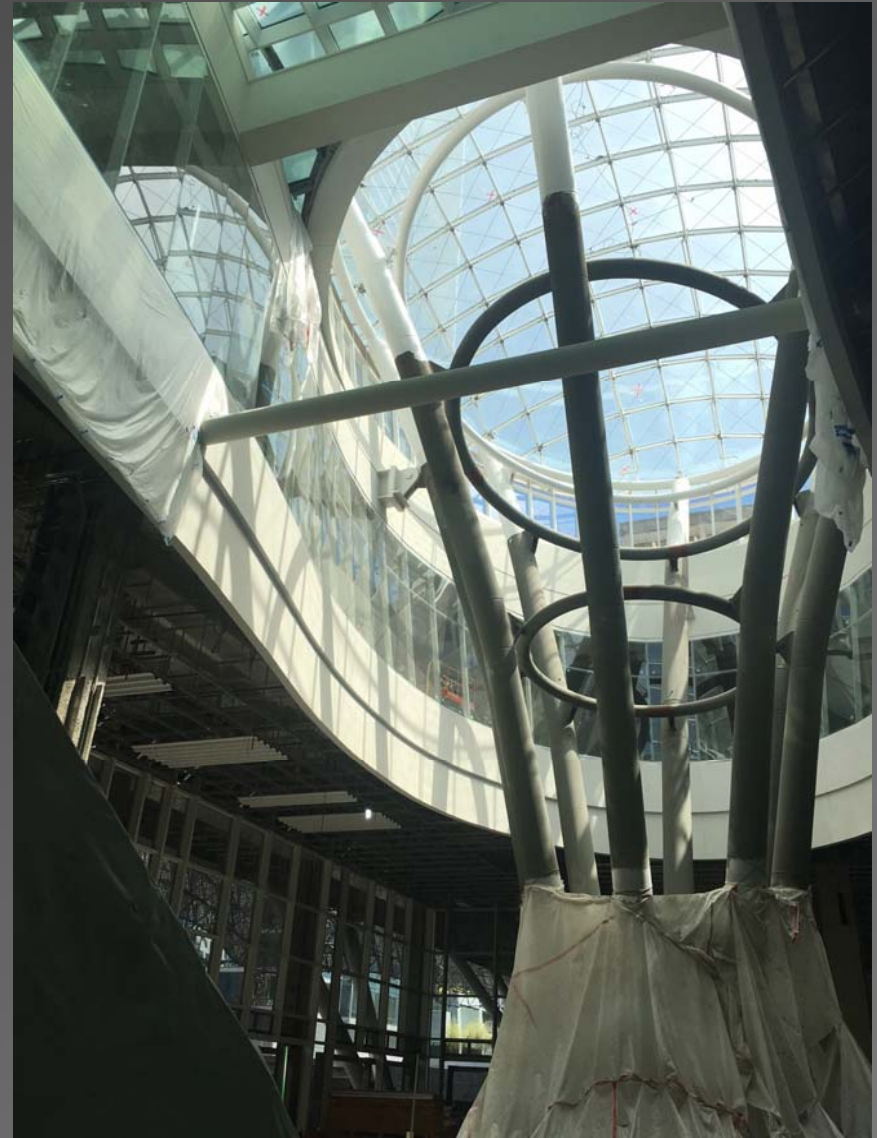


Transbay Transit Center

# Construction Activity June 2017









Transbay Transit Center

# Construction Activity June 2017

Signage Boulder – entry to  
Grand Hall



Radiant Heating- Grand Hall





Transbay Transit Center

# Construction Activity June 2017



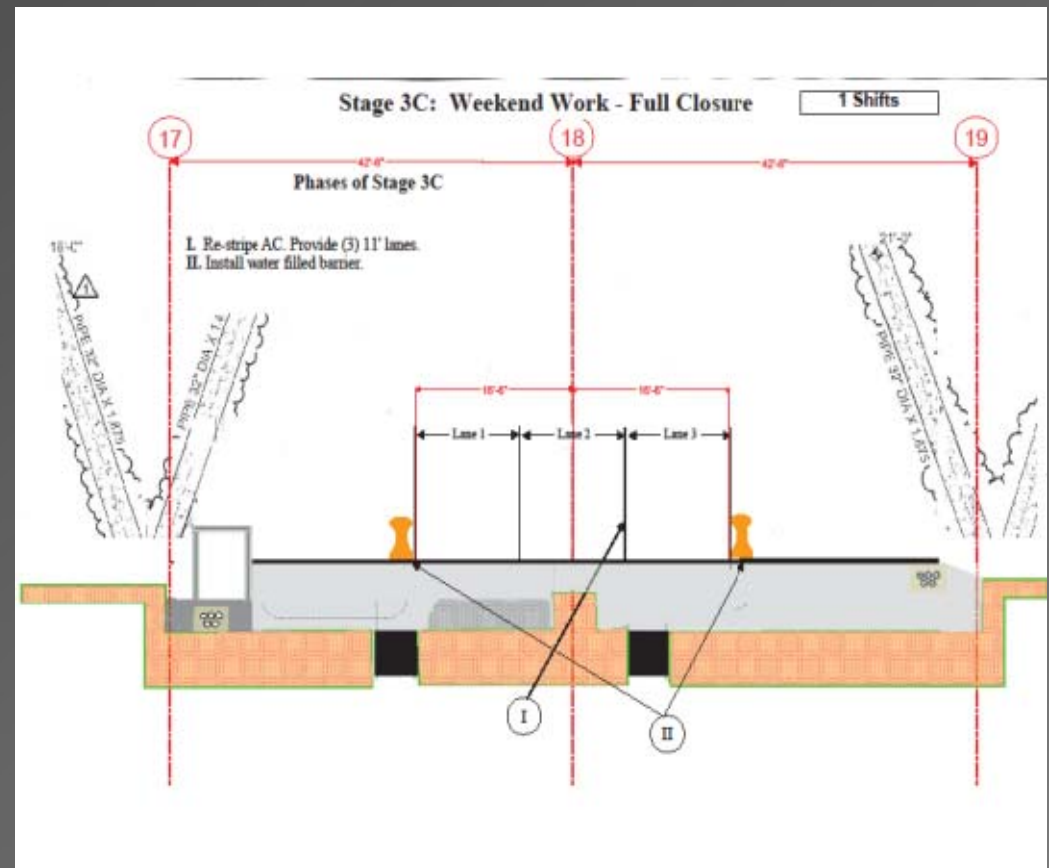
## Priority Room Buildout and Security Operations Center





## Fremont Street Temporary Traffic Bridge Removal

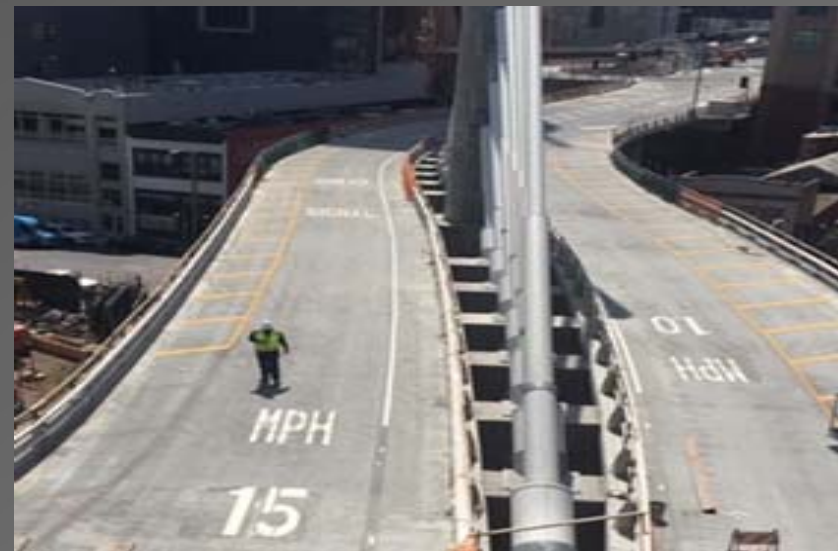
- Multiple Phase approach.
- Full closure not allowed Monday-Friday during the day.
- Majority of work including bridge demolition is scheduled for nights and weekends due to traffic requirements.
- Public Outreach completed in advance.
- All Permits obtained from DPW for night work and street closures.
- Transbay work is coordinated with both Salesforce Tower and 181 Fremont Projects.





### Bus Ramp/Cable Stay Bridge

- Bus Ramp striping was completed in early June.
- Security Guard Booth and security cameras are in testing.
- Overhead CMS Changeable Message Sign, street lights electrical lighting being tested.
- Final bridge punchlist and painting touchup is underway.
- Underground piping connections are underway.
- Under-ramp Parcels final grading is ongoing to prepare for asphalt overlay.





## Bus Storage Facility

- Ghilotti Construction continues with site excavation and site grading.
- Underground Utilities work continues.
- Bridge pile installation commenced in June.
- Soil Management Plan is underway.





## Recordable & Lost Time Incidents:

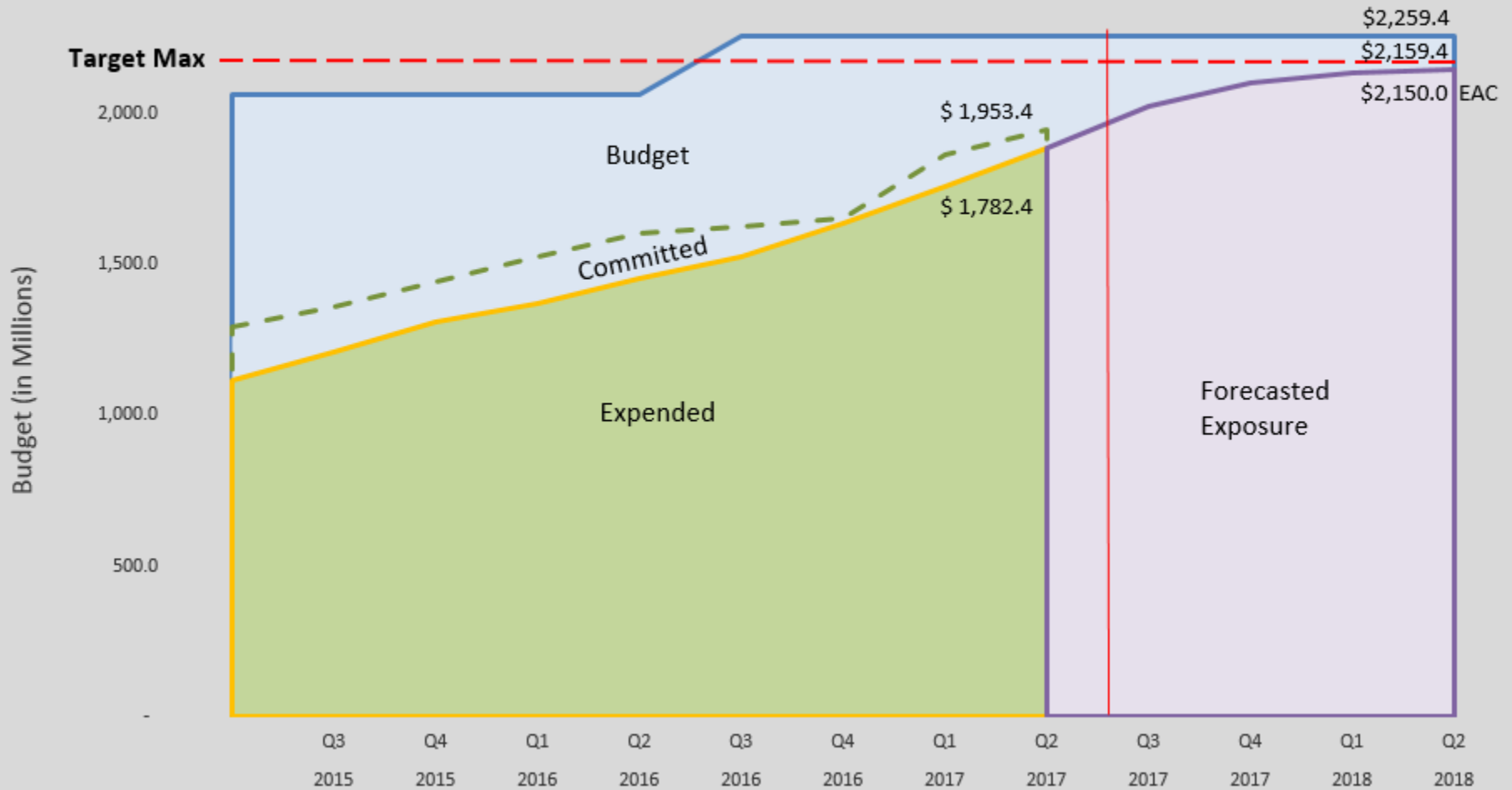
Recordable Incidents this period – June 2017:	1	Lost Time Incidents this period – June 2017:	0
Total Recordable Incidents in 2017:	6	Total Lost Time Incidents in 2017:	2
WOJV Average Annual Recordable Incident Rate 2011 Through 2015	3.04	WOJV Average Annual Lost Time Incident Rate 2011 Through 2015:	0.38
Nat'l/ State Annual Average Recordable Incident Rate 2011 Through 2015:	2.76	Nat'l/ State Annual Average Lost Time Incident Rate 2011 Through 2015:	1.36

## Craft Hours:

Total Transit Center Craft Hours Year 2011 - YTD 2017 :	Total Hours this Period – <u>June 2017</u> :	Total Transit Center Craft Hours YTD 2017 :
3,676,273	108,406	830,358



## Phase 1 Transbay Transit Center Data thru: May 17



79% Program Budget  
92% Contract Time





## Contingency Tracking (\$millions)

	Construction Contingency	CM/GC Contingency	Program Reserve	Total Contingency & Reserve
Baseline Budget Amounts	\$61.8	\$32.5	\$116.9	\$211.3
Contingency Usage Through May 2017	(\$23.3)	(\$2.3)	\$5.1	(\$20.6)
Remaining Baseline Budget Amounts (May 2017)	\$38.4	\$30.3	\$122.0	\$190.7
Total Draws/Adds June 2017	\$1.4	(\$1.0)	(\$0.4)	(\$0.0)
Remaining Balances	\$39.9	\$29.3	\$121.6	\$190.7

### Uses of Contingency this period

- Structural Steel – Skanska/Bradken Credit for unused funds.
- Structural Concrete – CMGC Contingency Usage for Schedule Acceleration.

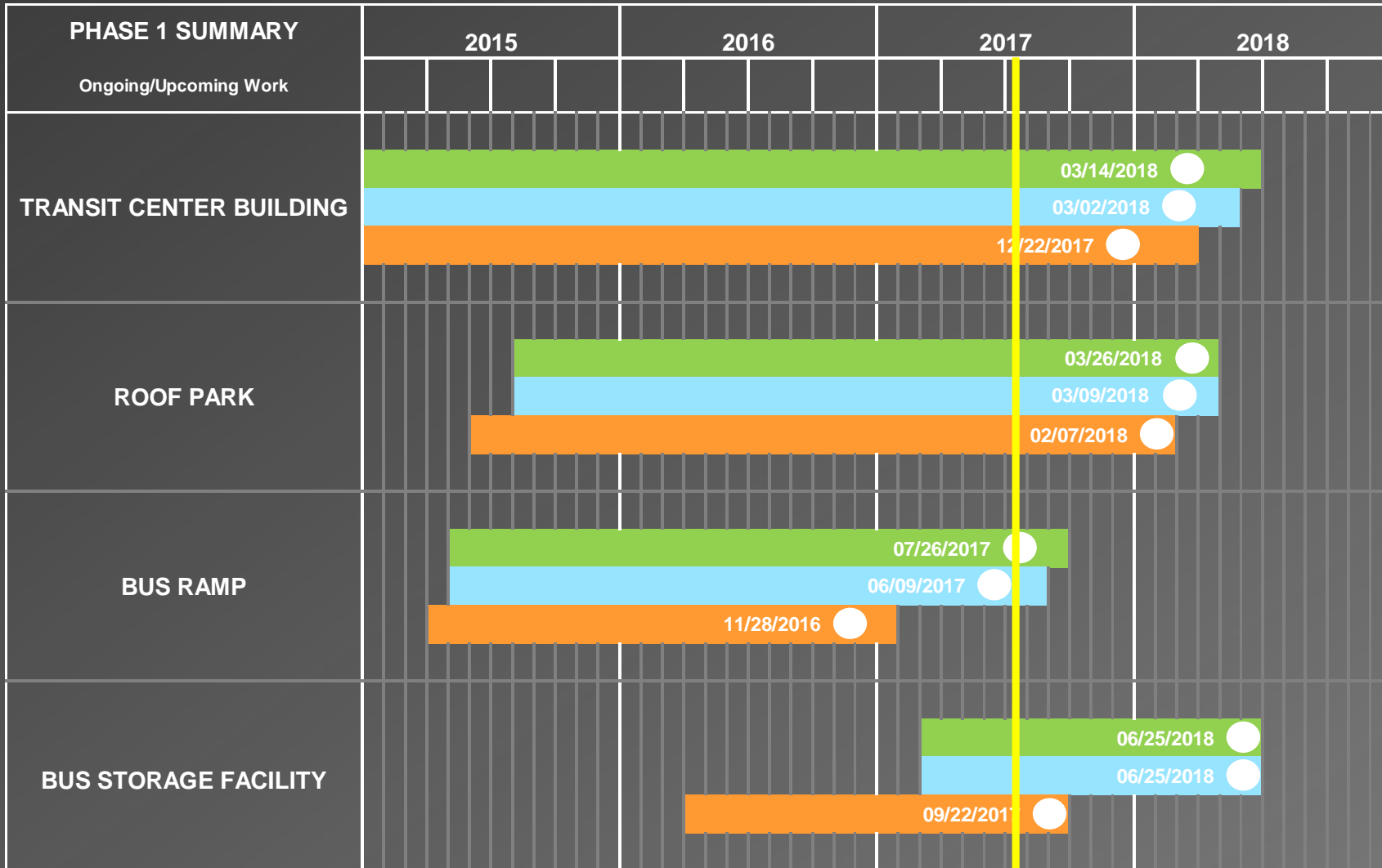
### Forecasted Contingency Use

- CM/GC: \$0.3
- Construction: \$4.5
- Program Reserve: \$3.7



# Transbay Transit Center

# Schedule



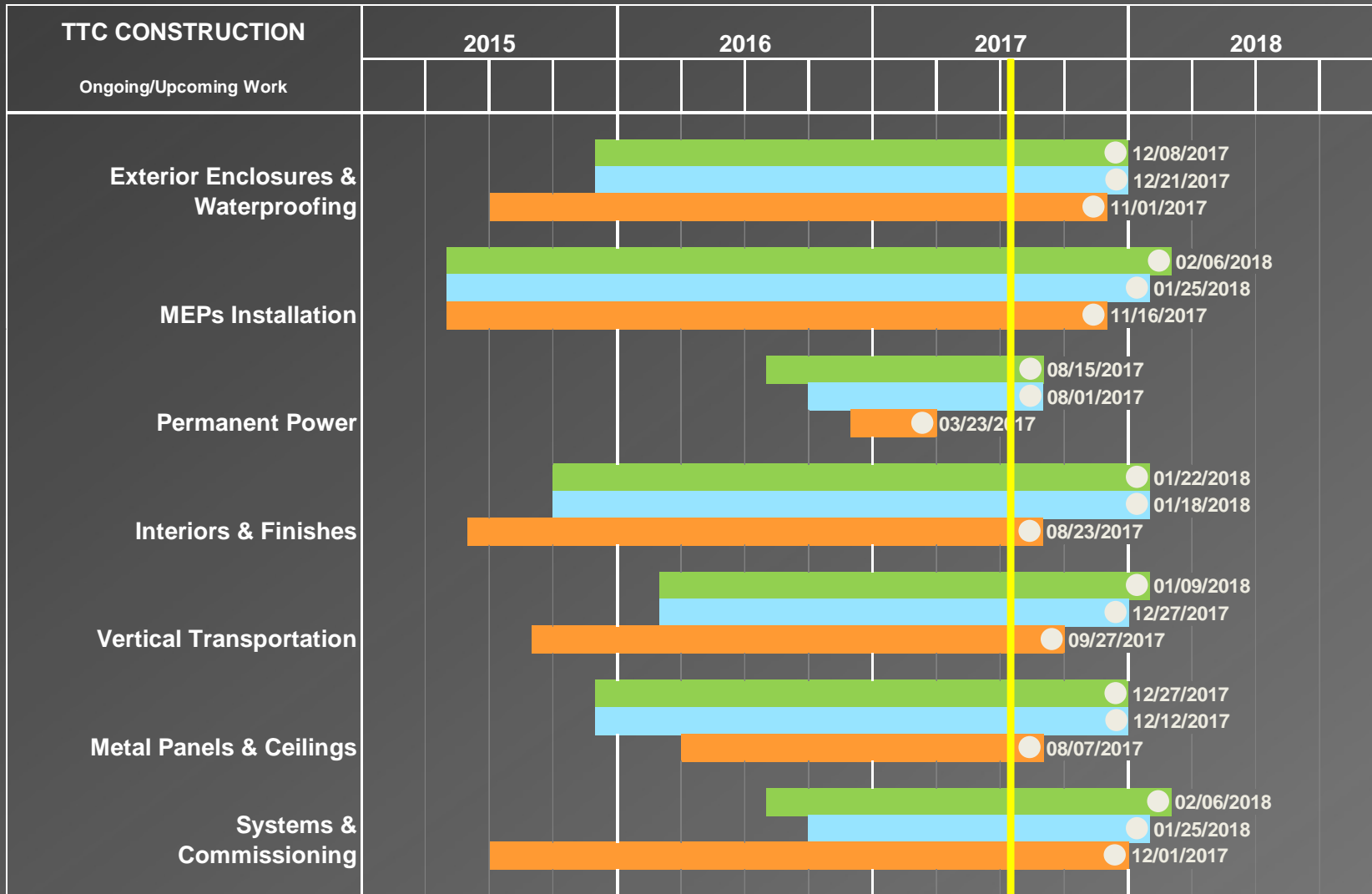
### LEGEND

- Current Forecast
- Previous Report
- Baseline
- Substantial Completion



# Transbay Transit Center

# Schedule



### LEGEND

- Current Forecast
- Previous Report
- Baseline
- Construction Complete



## Systems Installation & Commissioning

Building Management, Fire / Life Safety and Security Systems installation and commissioning activities will drive the schedule as we approach Substantial Completion.

Pre-Mitigation Strategy:

1. Focus of Bi-monthly Temporary Certificate of Occupancy (TCO) Meetings.
  - Continuing Activity Concentration on Priority Electrical and Data Rooms.
  - Permanent Power, Normal Power & Signal conductor distribution.
  - Continue vigilant watch over of SFFD Fire Alarm Review /Approvals.
2. Specific Items to monitor:
  - Rooftop Park Pylons relationship to Fire Alarm System as well as Emergency Communication System / Mass Notification.
  - Door Hardware interface & coordination with Building Management Systems & Security Systems.



## Sub-Contractor Closeout Challenges

Our TJPA Management and WOJV Teams are collectively striving to achieve subcontract close out of early Trade Package to retire cost risk currently being carried by EAC, including:

- TG18.1 - Bus Ramp (Shimmick)
- TG7.2 - TTC Above Grade Concrete (Shimmick)
- TG7.1R - Structural Steel (Skanska-Civil)

With close out resolution, the Scope and Risk Exposure can be retired; however, challenged by the following issues:

- Final negotiations of quantum cost of merited changes.
- Outstanding Potential Claims from Trade Package Sub-contractor.
  - Back Charge Cost Impacts amongst sub-contractors and WOJV.
  - Time Impacts amongst sub-contractors and WOJV.



## Schedule

Schedule currently indicating about 12 weeks beyond contractual Substantial Completion

### Concerns include:

1. Electrical Subcontract Production Rates in both Normal Voltage and Low Voltage Distribution.
2. Main & Intermediate Distribution Frame Rooms. (MDF & IDF Rooms) cabling and installation overdue without benefit of recovery schedule from Fisk.
3. Rooftop Park Progress albeit soil installation has been all but resolved with Material Submittal acceptance completed.
4. Column Covers Fabrication and Installation.
5. Interior & Finishes Subcontractor labor resources.
6. Advancement of Bus Plaza and Perimeter Site Work.



## Schedule

### WOJV Mitigation Strategy Framework

1. Targeted overtime to accelerate critical trades
  - W-13 glass floor in Grand Hall
  - Terrazzo floor in Grand Hall
  - Zone 4 site work
  - Metal Ceilings
2. Column cover mitigation
  - Current focus is on resolution of quality control issues and successful completion of mock-ups
  - Resequencing work to avoid delays to follow-on trades
  - Overtime, second shift and additional manpower at subcontractor's cost
3. Doors Specialist is on board and currently reviewing Hardware & Security Controls Integration



## Schedule

### WOJV Mitigation Strategy Framework

#### 4. Interior finishes manpower

- Added framing crews
- Supplementing subcontractor quality control and supervision

#### 5. Electrical work

- Retained two general foremen from another electrical subcontractor to closely monitor daily progress and assess current status
- Applying pressure to electrical subcontractor for mitigation options
- Evaluating options such as supplementation or potential default





## Schedule

### WOJV Mitigation Strategy Framework

6. Working with TJPA to prioritize areas for a phased completion strategy
  - Muni Bus Plaza
  - Retail Tenant Improvements
  - Grand Hall and Bus Deck
  - Security Operations Center



## Targeted Milestones

### 1. Bus Ramps

- Substantial Completion anticipated by July 28, 2017
- Striping revisions will be priced/evaluated as a post-contract activity

### 2. Bus Deck

- Complete AC Transit Supervisor Office installation mid-August
- Cat-tracking/testing August 30 – September 13, 2017 (2 wk. duration)
- Driver training September 15 – December 30 (3 month duration)
- Revenue Service: March 31, 2018 (soft start)

### 3. Bus Plaza

- Cat-tracking/testing September 15 – October 5 (3 wk. duration)
- Driver training October 6 –December 8, 2017 (9 wk. duration)
- Substantially Complete: Prior to Jan. 1, 2018



## Targeted Milestones

4. Amtrak/Greyhound Tenant Build-Out
  - Lincoln Properties A-E Selection: June - August 2017
  - Tenant Improvement documentation: September – December 2017
  - Tenant Improvement Construction: January - March 2018
  
5. FF&E Selection/Procurement (TJPA):
  - June 2017-February 2018



## Current and Recent Activities

### 1. Asset Manager Activities

- Finalizing recommendations for retail tenant mix and conducting outreach/site visits for potential anchor tenants
- Procurement for tenant improvement A-E
- Began outreach for park programming
- RFP's for Janitorial Services, Building Engineer issued June 23, 2017

### 2. Security/CSO Activities

- RFQ for Private Security Guards issued July 5, 2017
- PSIM and ECS/MNS Kick-Off Mtg. scheduled for July 13, 2017

### 3. Working with transit agencies to develop operations protocols

### 4. Working with MTC and transit agencies on digital signage

### 5. Street Legislation for sidewalks and curbside designations

