



# Construction Update

September 2016

## 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



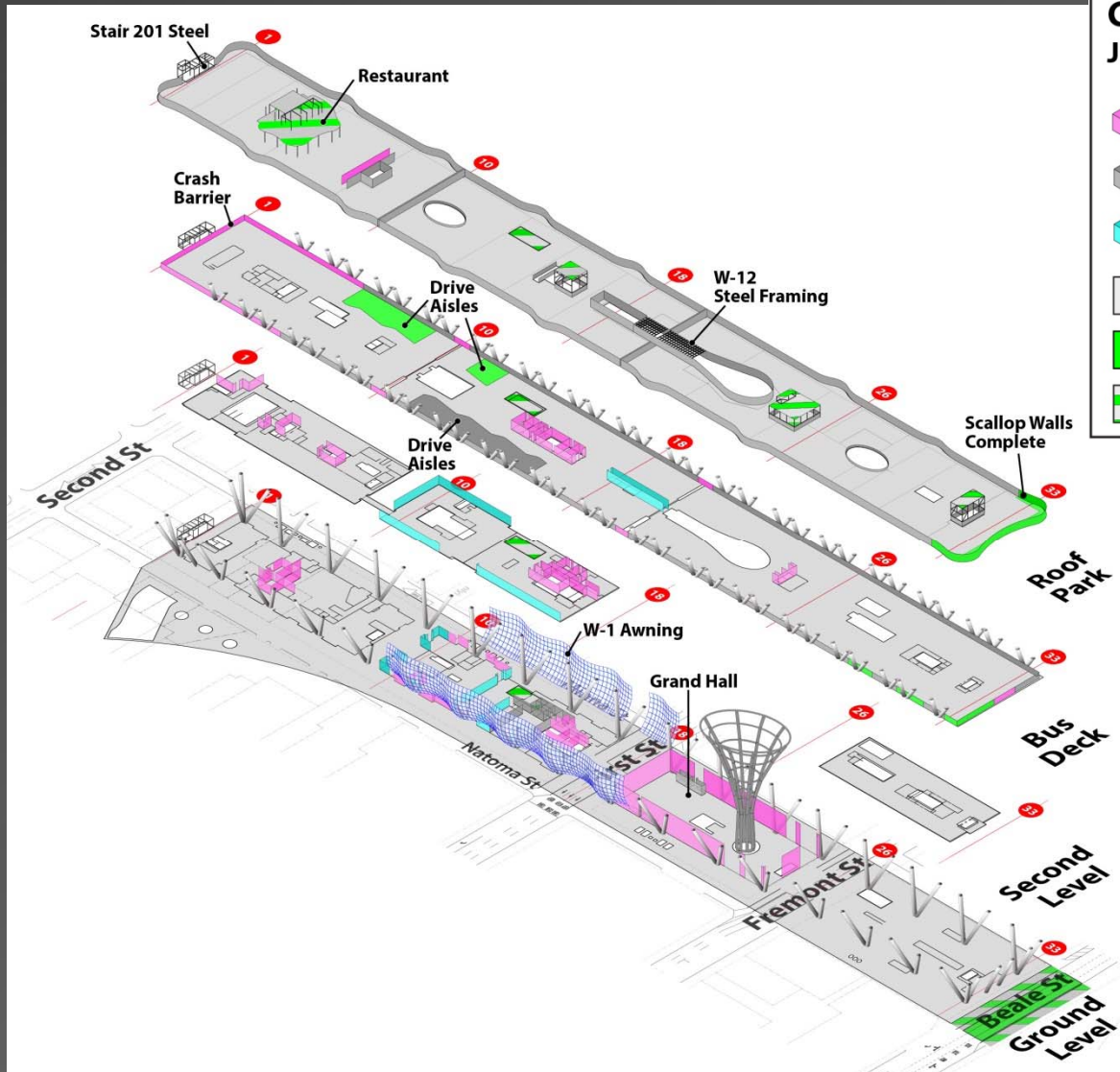
# Project Overview

1. Recent Activity
2. Upcoming Activity
3. Safety & Labor Statistics
4. Budget Overview
5. Contingency Cost
6. Schedule
7. Challenges











## Transbay Transit Center

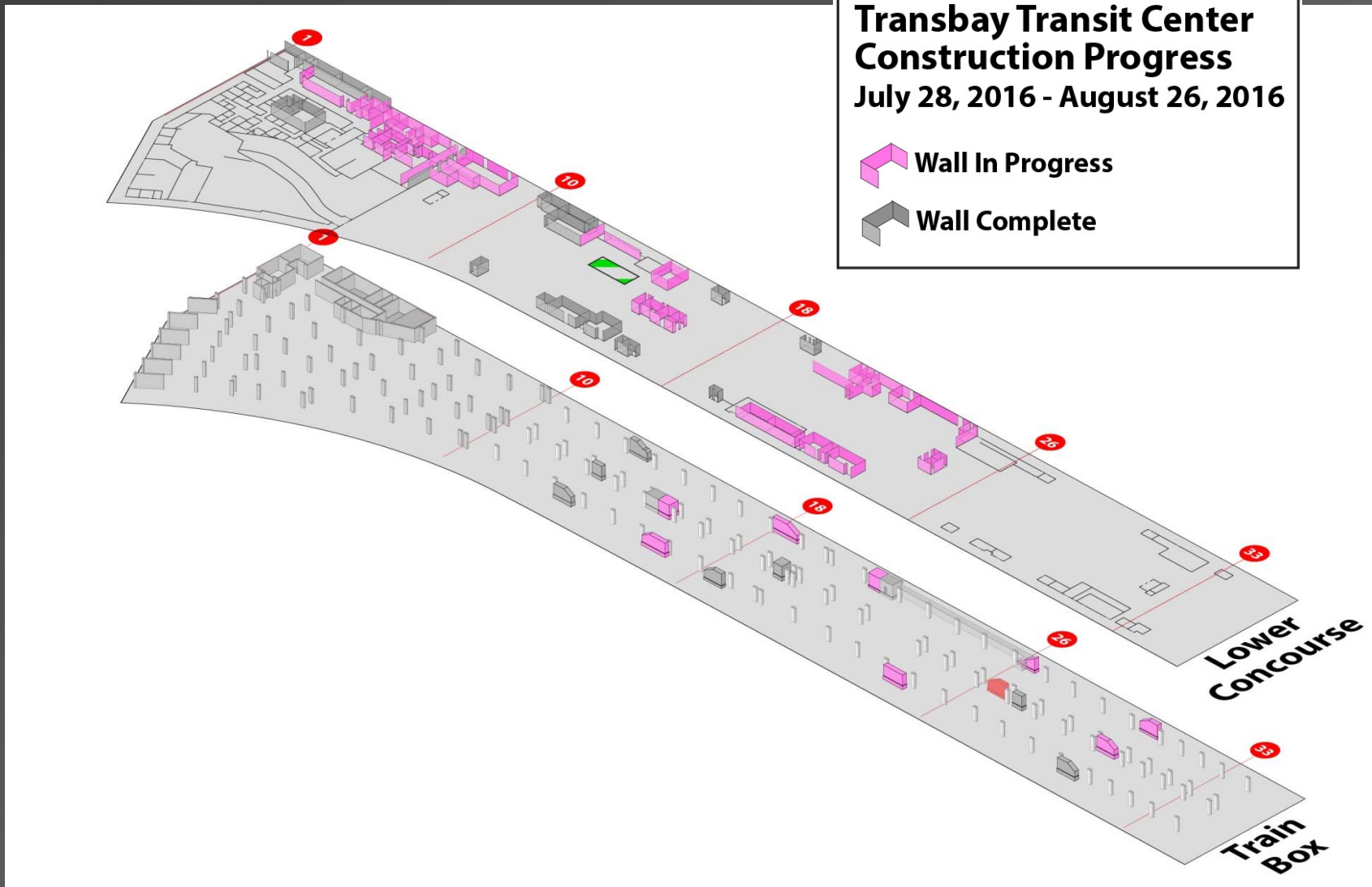


**Transbay Transit Center  
Construction Progress  
July 28, 2016 - August 26, 2016**

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

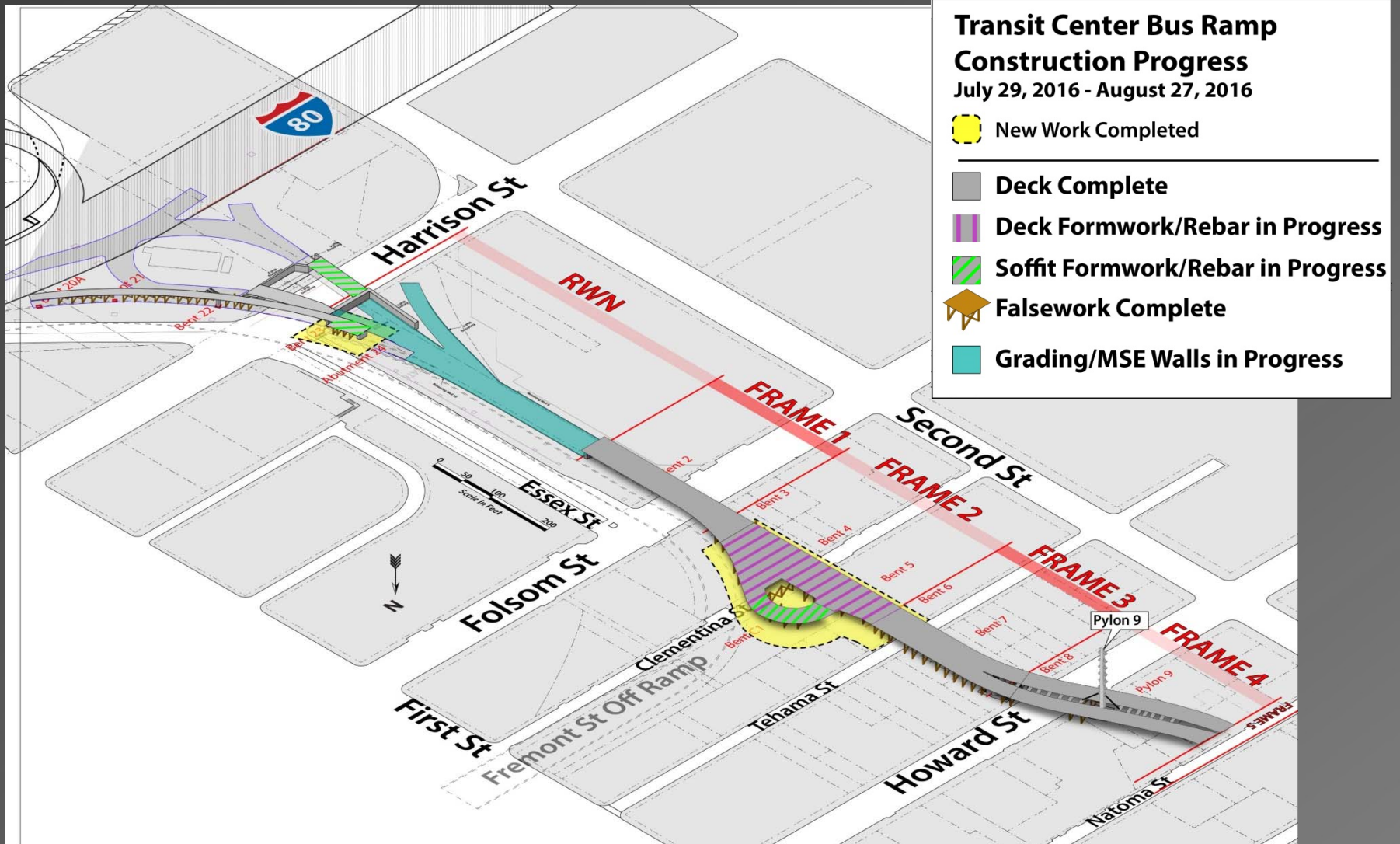


## Transit Center – Trainbox





## Bus Ramp and Cable Stay Bridge







View from First Street

W1 Exterior Awning  
Architect's 2010 rendering  
above.

W1 Exterior Awning  
installation over First Street  
August 2016.





## Western Zone (GL 1-10)

- Stair 201 steel structure is now installed with welding in progress.
- Spray applied fireproofing continues and is near completion.
- Glass Curtain Wall continues at Ground Level and Level 2.
- Mechanical/Electrical/Plumbing/Fire Sprinkler (MEPF) hangers and systems installation continues.
- Offsite Electric Manholes and underground utility work (conduit ductbanks) nearing completion.
- On-Site Electrical room concrete and Concrete Masonry Unit (CMU) wall installation in progress.





## Central Zone (GL 10-20)

- Exterior Awning installation is now complete (a few Penrose panels remain) in this zone.
- Bus Deck island and drive aisle waterproofing and concrete placement continues.
- Bus Deck Escalator E407/E408, wall system framing and glazing were installed.
- Grand Hall glass curtain wall system framing and glazing continues.
- Mechanical/Electrical/Plumbing/Fire Sprinkler (MEPF) hangers and systems installation continues.
- Lower level electric room build-out continues.







## Eastern Zone (GL 20-35)

- Rooftop concrete scallop walls and perimeter walls are now complete.
- Rooftop Glass Floor framing over the Grand Hall has started.
- Grand Hall Glass Curtain Wall framing and glazing work continues.
- Bus Deck waterproofing and bus pedestrian island curb concrete placement has started.
- Spray applied fireproofing work completed at Bus Deck level and continues at lower levels.
- Internal Bracing on the Lower Concourse was removed to Beale St.
- Fremont Street Bridge waterproofing is now complete.



### Bus Ramp Bridge

- Viaduct Stem & Soffit concrete placement over Clementina Street completed this period.
- Bus Ramp turnaround formwork completed @ Clementina Street.
- Cable Stay Bridge specialty contractor, VSL, mobilized and cable installation started late August.
- Cable Stay Bridge steel drop-in span to the Transit Center is progressing with offsite fabrication.
- Underground utilities work at Caltrans substation continues.
- Mechanically Stabilized Earth (MSE) walls and retaining wall work continues.







## Central Zone

- Start Rooftop Waterproofing system installation.
- Continue Bus Deck waterproofing, curb and drive aisle concrete.
- Continue with Electrical Room build-out on the Lower Concourse.
- Continue with MEPF overhead.
- Start removal of the First Street temporary bridge in late September.



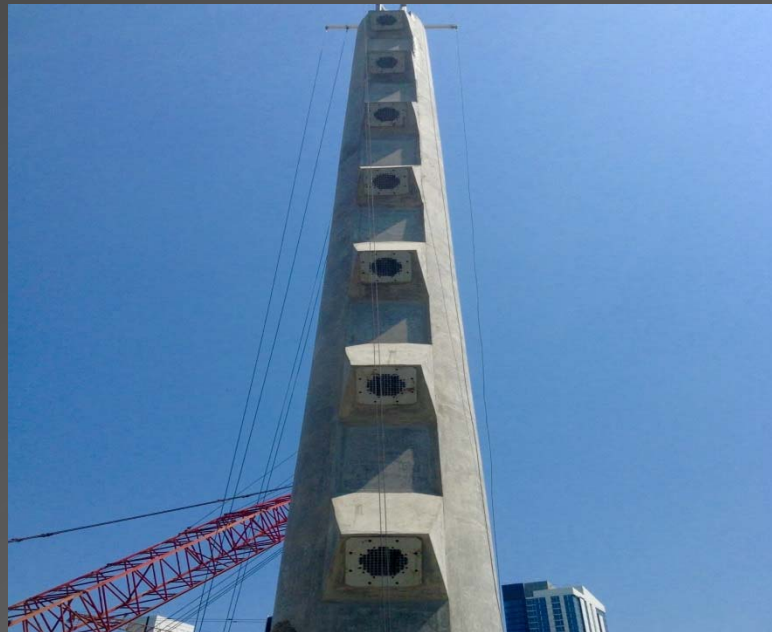
## Eastern Zone

- Complete turnover of rooftop concrete and penthouse decks.
- Continue Bus Deck perimeter crash rail concrete, waterproofing, curb and drive aisle concrete.
- Complete Spray on Fireproofing Level 2, Ground Level and Lower Concourse.
- Complete the Trainbox concrete underneath Beale Street.



## Western Zone

- Complete the Trainbox Lid concrete and waterproofing for western zone.
- Continue electrical room build-out ; floor coating, door frames, grounding.
- Complete spray-applied fireproofing remaining structural steel.
- Complete Stair 201 steel welding.



## Bus Ramp and Bridge

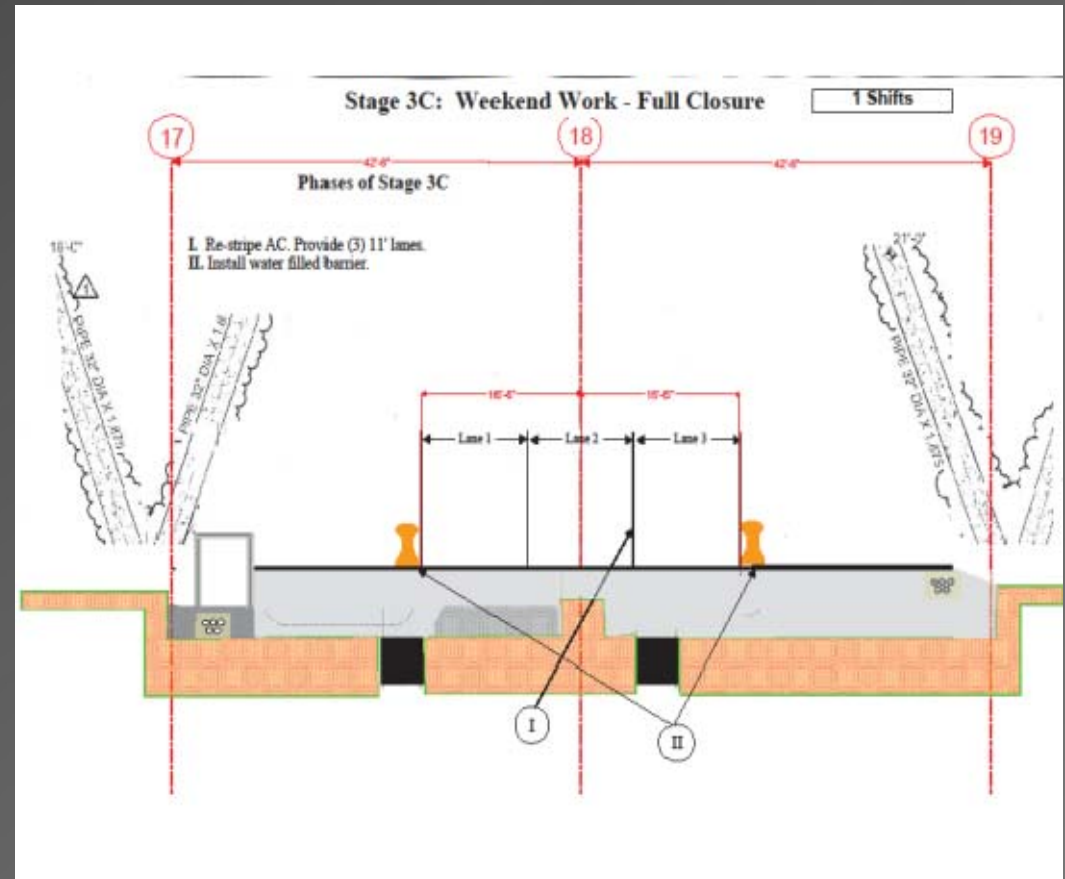
- Continue Cable Stay Bridge cable install.
- Complete steel drop-in span fabrication and coatings.
- Harrison Street “Left Bridge” concrete placement September 8.
- Bus turnaround stem & soffit concrete placement early October.





## First Street Temporary Traffic Bridge Removal

- Three (3) lanes open daily during all operations.
- Salesforce Tower coordinated with truck access provided.
- Majority of work including bridge demolition is scheduled on day shifts.
- First St. lane changes (east) begin in early October and divert traffic for 12-14 weeks.
- First St. lane changes (west) begin in January and divert traffic for 10-12 weeks.





## Recordable & Lost Time Incidents:

Recordable Incidents in July / August time period:	2	Lost Time Incidents in July / August time period:	0
Total Recordable Incidents in 2016:	8	Total Lost Time Incidents in 2016:	0
WOJV Average Annual Recordable Incident Rate 2011 Through 2015	4.35	WOJV Average Annual Lost Time Incident Rate 2011 Through 2015:	0.75
Nat'l./ State Annual Average Recordable Incident Rate 2011 Through 2015:	3.43	Nat'l./ State Annual Average Lost Time Incident Rate 2011 Through 2015:	1.85

## Craft Hours:

Total Transit Center Craft Hours through August 2016:	Increase since last update:	Total 2016 Craft Hours:
2,536,882	141,004	610,555

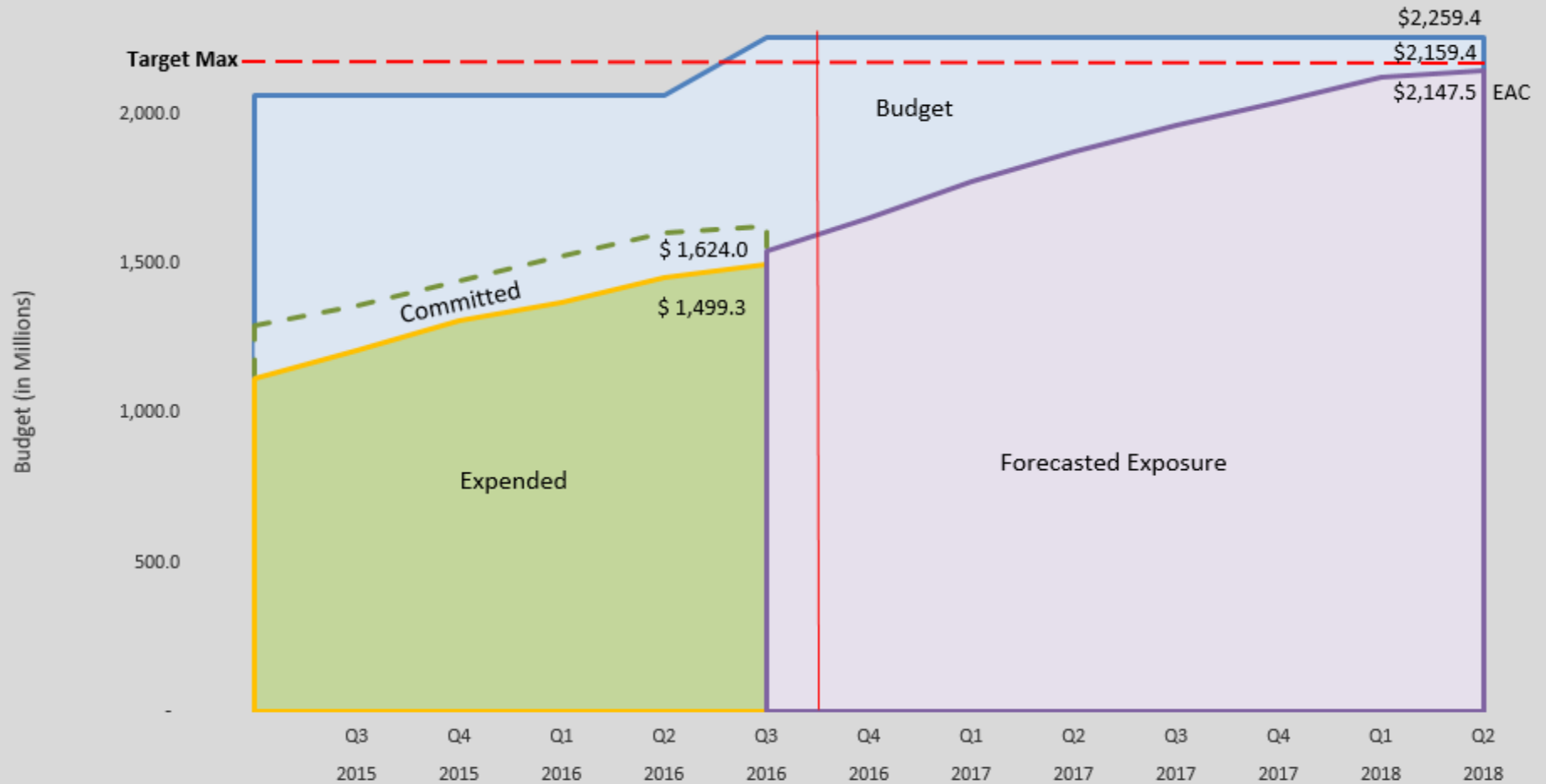




# Transbay Transit Center

# Budget Overview

## Phase 1 Transbay Transit Center Data thru: July 16



66% Program Budget  
80% 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 Jul 2016	(\$9.8)	(\$0.2)	(\$0.0)	(\$10.1)
Remaining Baseline Budget Amounts (Jul 2016)	\$52.0	\$32.3	\$116.9	\$201.2
Total Draws/Adds Aug 2016	(\$1.2)	\$0.1	\$0.0	(\$1.0)
Remaining Balances	\$50.8	\$32.4	\$116.9	\$200.2

### Uses of Contingency this period

- TG10.4 CCO for SFPUC wire pulling and Equipment setting totals @\$800K, Misc. TG12.1, 7.1,7.2,7.3 changes to Civil / Sitework, and Superstructure totals @ \$300K.

### Forecasted Contingency Use through November:

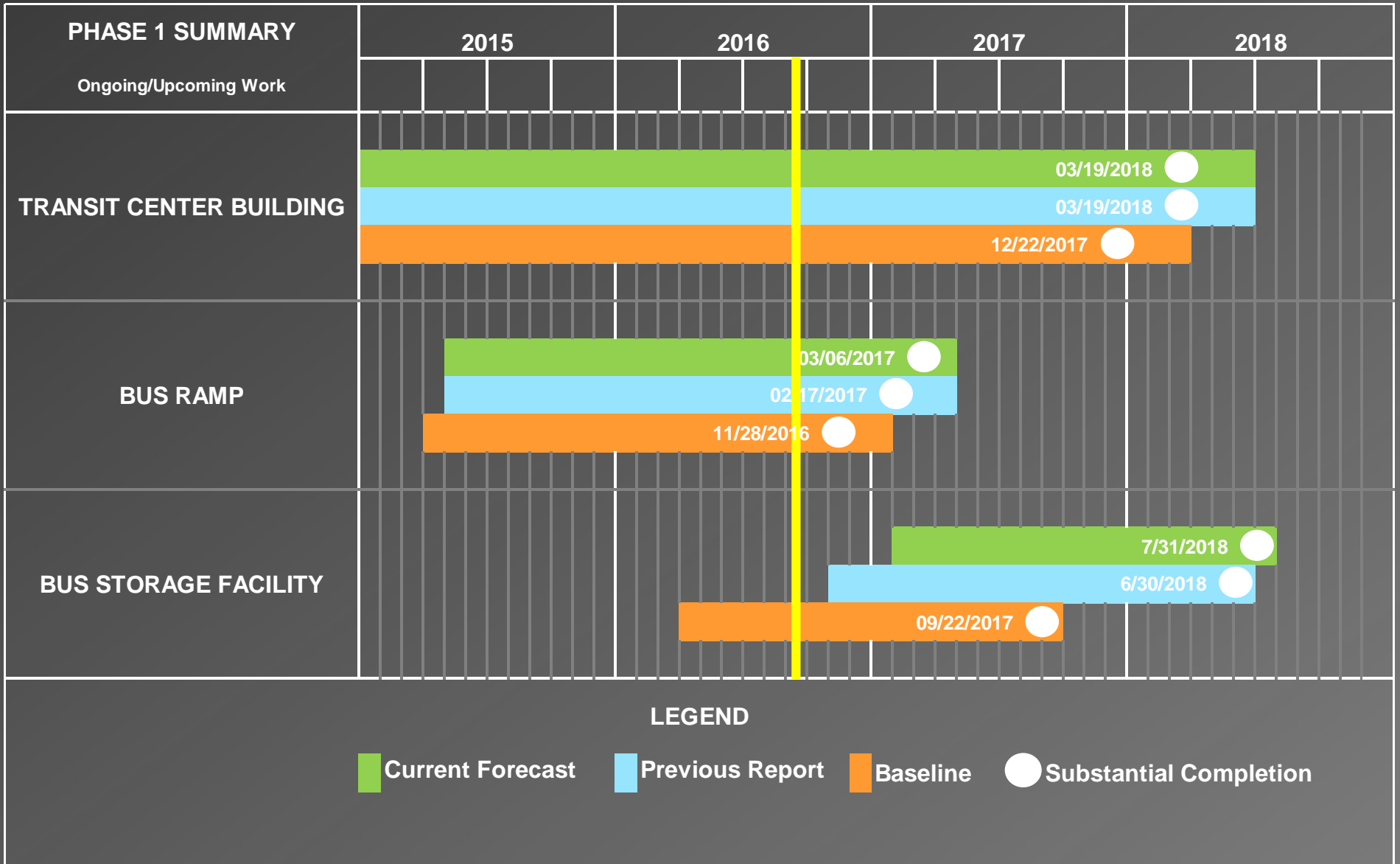
- CM/GC: \$0.8
- Construction: \$8.7
- Program Reserve: \$0





# Transbay Transit Center

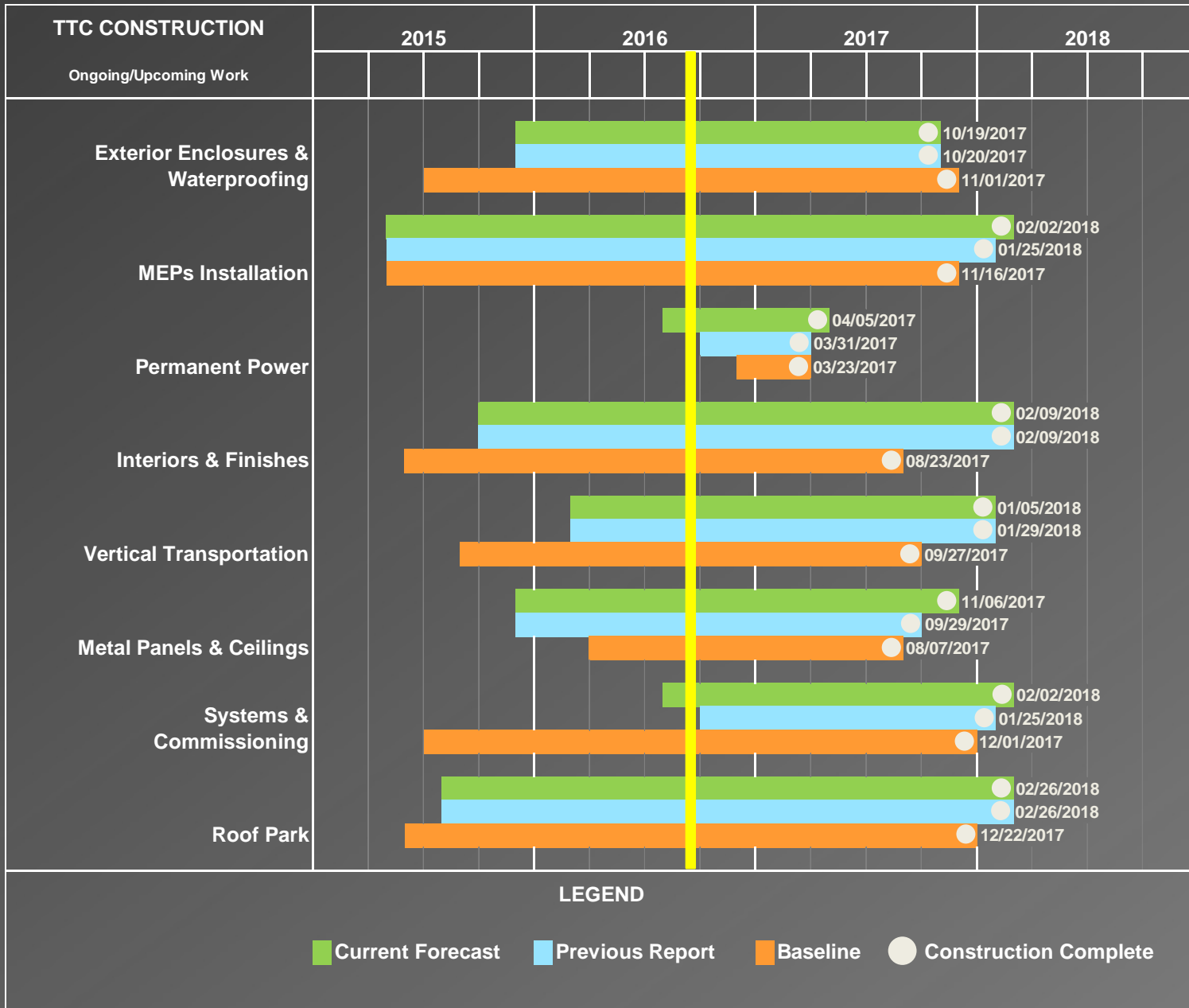
# Schedule





# Transbay Transit Center

# Schedule





## Schedule

Contractor Forecast remains fluid with mix of gains and losses

### Mitigation Update

1. Strategic overtime work winding down focus on concrete and window wall systems.
2. Additional acceleration opportunities in discussion as we introduce more MEP and Finish Trades on site.
3. CM/GC schedule forecast will be incorporated in upcoming Risk Assessment.
4. Continue to seek Improvement in CM/GC schedule monthly update content in respect to achieving complete mitigation of lost time.





## Buy America

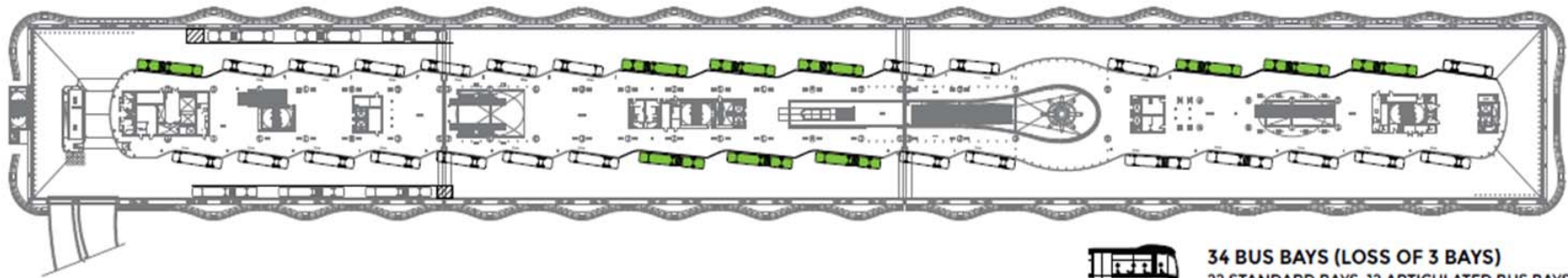
### Mitigation Update

1. Resolved significant items :
  - Building Management Control System (BMCS)
  - Fire Management System (FMS)
  - Public Address System (PA)
  - Audio Visual Systems (A/V)
2. Received response from WOJV and Fisk on TJPA letters regarding Buy America indicating Fisk will proceed with procurement and installation as they bid and certified.
3. Resolution to Listing Issue remains in process with Fisk substitution request still pending.
4. Continue to Monitor but issue essentially resolved.



## Change Management AC Transit Bus Deck Reconfiguration Request

### OPTION 1 DESIGN CONFIGURATION



**34 BUS BAYS (LOSS OF 3 BAYS)**  
22 STANDARD BAYS, 12 ARTICULATED BUS BAYS

- + MINIMIZES IMPACTS TO OTHER OPERATORS
- + AVOIDS BAYS OVER THE SEISMIC JOINTS
- + 1 GREYHOUND AND 1 WESTCAT BAY RELOCATED
- + GREYHOUND AND AMTRAK BAYS REMAIN CLOSE TO THE WAITING AREAS

- DROP-OFF AND SURGE BAYS RELOCATED
- SEPARATES 1 AC TRANSIT SERVICE FROM OTHER AC SERVICES

1. Further advancement of proposed sub –project requires AC Transit Board and/or TJPA Board to approve and fund approx. \$900,000 to fully implement Option 1.
2. Schematic Schedule assumes sub-project approved & funded prior to Jan. 2017.

**Concern: No advancement since last Report**



## Bid Package 1.5 Procurement

### Procurement of Network Systems

#### Concern:

1. Installation of IT Systems critical for Operational Readiness.
2. Delayed IT Installation could delay Phase 1 due to converged network design with Building Systems.

#### Mitigation Update:

1. TG27.1 & TG27.2 Bids for Network Systems and Public Address System (Audio Visual Equipment) received and advancing.
2. Continue to Monitor as Concern but issue essentially resolved.





## Operational Readiness

### Concerns:

1. Master Lessee Delayed On-Boarding Impact
  - Building Systems Commissioning
  - Building Systems Testing, Training and Hand Off
2. Timely Transit Operator's Transition
  - Route "Sign-On" & Driver Training Schedules
  - Transit Operator's Tenant Improvements, Fixtures, Furniture, & Equipment

### Mitigation Strategies:

1. Master Lessee engagement to later than January 2017
2. Transit Operator Transition Teams Formulated
3. Bi-weekly Transition Planning Meetings Initiated

