

Update on Construction and temporary closure of the Salesforce Transit Center

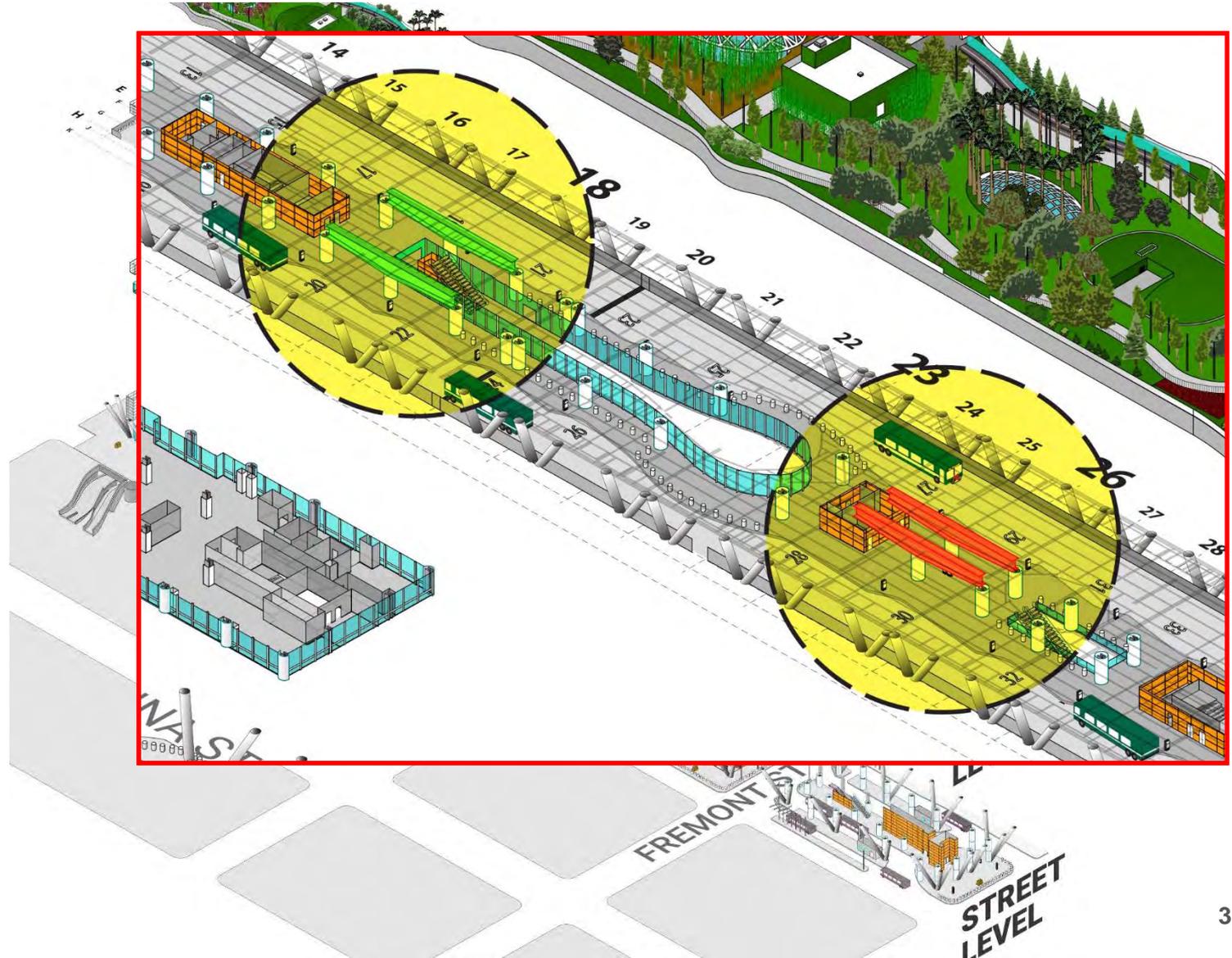
February 12, 2019



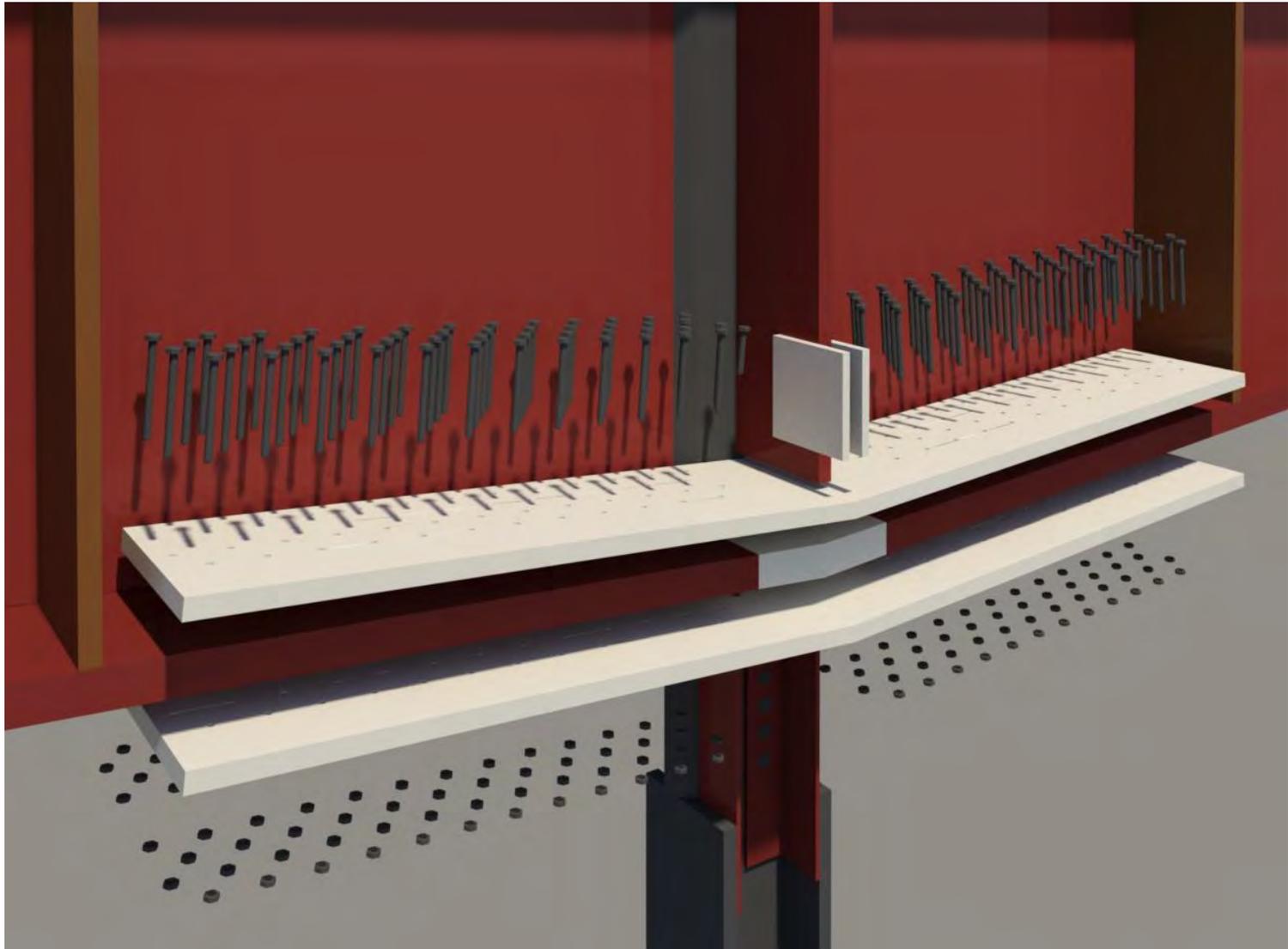
Agenda

1. Progress on the Girder Remediation/Repair Effort (Dennis)
2. Progress on confirming the Facility-Wide Validation (Ron)

Isometric View



Girder Remediation Detail



This graphic has details specific to Fremont street girders

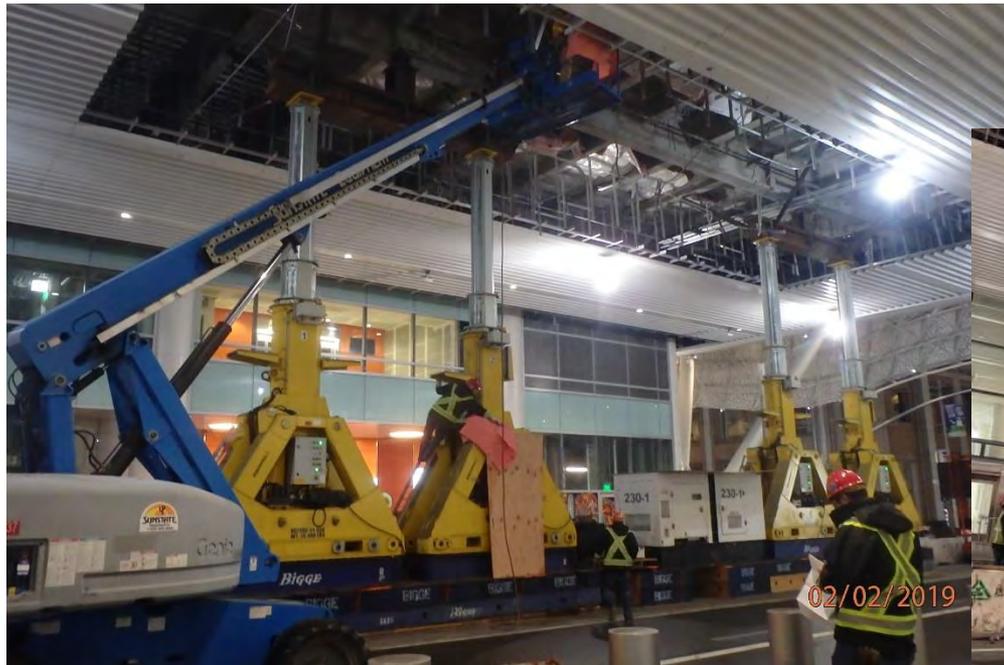
Recent Actions

Actions taken since last Board meeting:

- Fremont and First Street remediation material being machined;
- Initial preparation of Fremont street girders has begun.
- Temporary jacks at First Street replaced with steel column shoring.
- Contractor schedule update indicates repair completion no later than June.

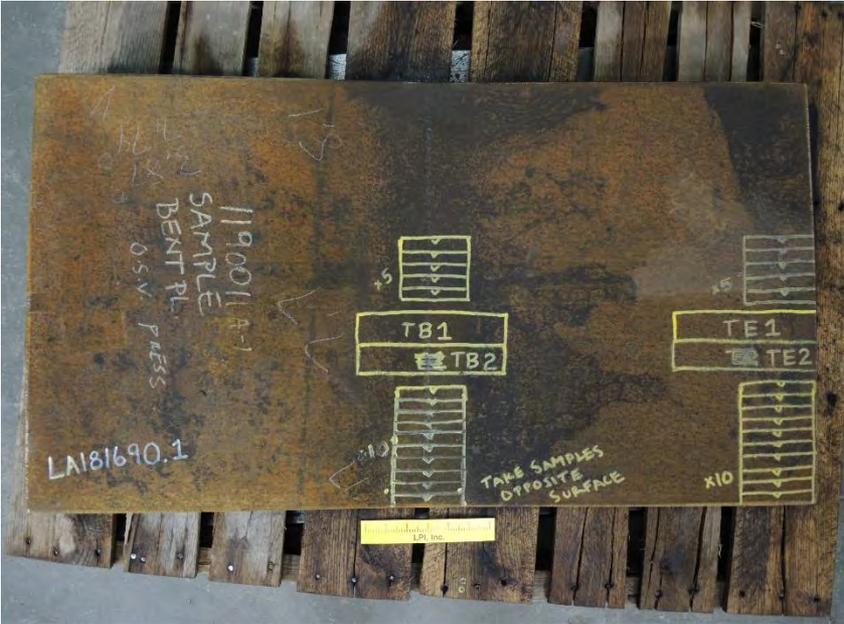
Recent Actions

Steel column shoring installed at First street in preparation for the permanent plate installation.



Recent Actions

Sample plate being tested at LPI lab



Next Steps

February 2019 actions:

- Finite Element Analysis (FEA) to be presented to PRP.
- Project Team* continuing their building-wide review for other areas that may need further review and/or inspections.

March 2019 actions:

- Project Team* continues building-wide document and field review.
- Materials arrive onsite.
- Commencement of the Fremont and First street remediation.

Repair/Remediation expected to be completed by June.

Schedule

	January				February				March				April				MAY			
	1/4	1/11	1/18	1/25	2/1	2/8	2/15	2/22	3/1	3/8	3/15	3/22	4/5	4/12	4/19	4/26	5/3	5/10	5/17	5/24
MTC ONGOING PEER REVIEW	[Blue bar from 1/4 to 5/24]																ONGOING			
DESIGN FIRST STREET REMEDIATION	[Blue bar from 1/4 to 2/1]																			
MTC PEER REVIEW FOR REMEDIATION (First Street)	[Blue bar from 1/4 to 2/8]																			
PERMANENT FIX INSTALLATION Procurement & Installation	[Blue bar from 1/4 to 6/01]																6/01			
SHORING REMOVAL????	[Blue bar from 4/12 to 5/24]																			
REINSTALLATION OF SYSTEMS, FINISHES & CEILINGS	[Blue bar from 1/02 to 5/24]																ONGOING			
PROJECT TEAM BUILDING-WIDE SEARCH	[Blue bar from 1/02 to 5/24]																ONGOING			
MTC PEER REVIEW BUILDING-WIDE VERIFICATION	[Blue bar from 1/18 to 5/24]																ONGOING			
PERFORM ANY REQUIRED BUILDING MITIGATION	[Blue bar from 3/1 to 5/24]																ONGOING			

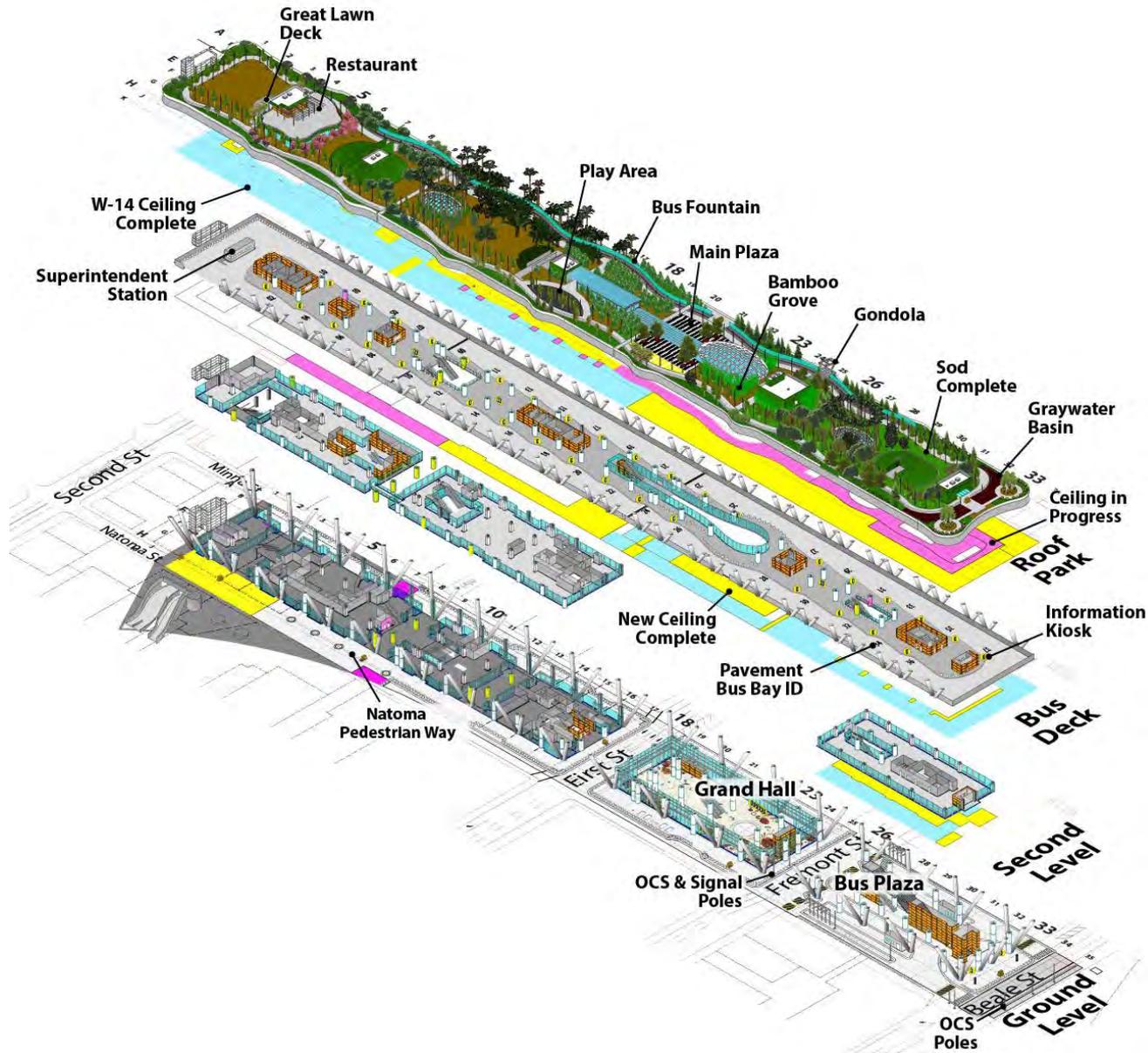
Ongoing Actions

Full Building Structural Health Check

Progression through the successive sieves of the funnel help separate areas which require further research to confirm to be acceptable.



Facility-Wide Validation Framework



Facility-Wide Validation Framework

- Reaffirm Structural Integrity of Building
- Revalidate Full Fire & Life Safety Systems completed in May
- Review Tests & Inspection Records completed in March
- Building Management Systems Commissioning completed in April
- Re-Occupancy Readiness Strategy

Facility-wide Validation Framework

- Reaffirm Structural Integrity of Building
 - Complete Engineering Findings & Reports
 - Fracture-related Investigations
 - Complete PRP Remediation Recommendations
 - Follow PRP Building Evaluation Criteria
- Revalidate Full Fire & Life Safety (F&LS) Systems
 - SFFD and Project Team established parameters for Fire & Life Safety Systems Recertification
 - Restoration of Localized Interruptions Created by Girder Work underway with activation of various zones scheduled to occur between February and May

Facility-wide Validation Framework

- Review Tests and Inspections
 - Concrete Placement Inspection Reports Review
 - 34,240 Test Cylinders were taken
 - All reviewed and accepted with exception of one pending paperwork
 - Validated all compaction tests for structural concrete
 - Review Field Condition Reports (FCR's) and Non-Compliance Reports (NCR's)
 - Current FCR/NCR Stats:
 - There were 4,647 NCRs/FCRs written to date
 - No Systemic or new issues identified during records review
 - Continue FCR and NCR Process through remediation efforts

Facility-wide Validation Framework

- Building Management Systems Commissioning
 - Commissioning Progress
 - Pre-functional Check-list Status:
 - Vertical Transportation Systems – Complete
 - Fire/Life/Safety – Complete (pending repair completion)
 - HVAC – 75% complete or in process (remaining pending repairs)
 - Hot Water, BMS, Lighting & Electrical not started
 - Functional Performance Testing
 - Implement Testing Plan per Schedule (update)
 - Measure, Monitor & Report on Functional Test
 - Validate Systems Performance
 - Closeout Documentation Status:
 - Submitted Items – 317
 - Unsubmitted Items – 542
 - Normal Operations
 - Continual Systems Operational Parameters Monitored
 - Real-time Systems Reporting and Alarming of Issues or Failures

Building Management Systems Commissioning

	January				February				March					April				
	1/4	1/11	1/18	1/25	2/1	2/8	2/15	2/22	3/1	3/8	3/15	3/22	3/29	4/5	4/12	4/19	4/26	
HVAC Equipment & Controls																		
Air Handling Units																		
Cooling Towers & Variable Frequency Drives (VFD)																		
Computer Room Air Conditioning (CRAC) units																		
Heat Pumps																		
Radiant Flooring																		
Stair Pressurization																		
Exhaust Fans																		
Supply Fans																		
Dampers / Actuation																		
Domestic Hot Water System																		
(BMCS) Mechanical																		
(BMCS) Electrical																		
Building Management Control System																		
(BMCS) Mechanical																		
(BMCS) Electrical																		
Lighting Systems Control																		
Occupancy Sensors																		
Daylight Dimming																		
Switching Systems																		
Time Schedules																		
General Electrical Systems																		
Uninterrupted Power Supplies (UPS)																		
Generators & ATS Systems																		
Transformers																		
Electrical Distribution Boards																		
Power & Energy Monitoring																		
Fire Alarm System	Completed with Recertification Pending Structural Repairs																	
Fire Suppression System	Completed with Recertification Pending Structural Repairs																	
Vertical Transportation	Completed																	

Partial
 Recommissioning
 Pending
 Structural
 Repairs

Facility-wide Validation Framework

- Re-Occupancy Readiness
 - Receive Occupancy Clearance by Zones/Floors
 - SFFD, DBI, TJPA Inspectors, Building Commissioning Agents
 - Establish Re-Activation Sequence
 - Incremental Activation as early as March to May Timeframe
 - Complete & Occupy Tenant Improvement Spaces
 - TJPA Office Move to 2nd Floor Space Imminent
 - Probable Early Bus Plaza Opening
 - Independent Salesforce Park Opening Plausible
 - Phased Bus Deck Opening Supports Early Activation
- Present Re-Occupancy Schedule March 2019



Thank You

TJPA
TRANSBAY JOINT POWERS AUTHORITY

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