

MONTHLY MONITORING REPORT

## **Transbay Downtown Rail Extension Project, Phase 2**

Transbay Joint Powers Authority (TJPA)  
San Francisco, CA

April/May 2023

PMOC Contract Number: 69319519D000031

Task Order Numbers: 69319522F30068N; 69319520F300044

OPs Referenced: OP25



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Length of time Assigned: 8 Months (October 2022 through May 2023)

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## **1.0 EXECUTIVE SUMMARY**

### **1.1 Project Description**

The Transbay Joint Powers Authority (TJPA) proposes to extend the Caltrain commuter rail line 2.4 miles from the China Basin/South Park neighborhood near the current Caltrain terminus at Fourth and King Streets to the multi-modal Salesforce Transit Center in downtown San Francisco. The Project's proposed Fourth and Townsend Street station is near Oracle Park, the home of the San Francisco Giants baseball team. The project's current estimated capital cost is \$6,987 million. The TJPA believes that the project, known as the Transbay Downtown Rail Extension Project, Phase 2 (Transbay DTX), will improve public access to bus and rail service and accommodate projected growth in travel demand in the San Jose–San Francisco corridor. The proposed Project will connect Caltrain's regional rail system to the Salesforce Transit Center in downtown San Francisco, along with the future California High-Speed Rail Authority's statewide rail system.

### **1.2 Project Status**

The Locally Preferred Alternative (LPA) was completed in March 2003, and NEPA was completed in February 2005 with a Record of Decision (ROD). FTA amended the ROD in July 2019, and the LPA was adopted into the region's fiscally constrained long range transportation plan in October 2021. The Project plans to formally request FTA approval to Enter Engineering in February 2023 and anticipates FTA approval in August 2023. The Project expects to enter the Engineering phase in 4Q-2023, receive a Full Funding Grant Agreement in 2025 and initiate revenue service in 2032.

*Through May 8, 2023, TJPA continued working with the PMOC on preparations for the OP40 Risk Workshop scheduled for the week of May 8, 2023. TJPA arranged for the logistics of the OP40 Risk Workshop that was held on site from May 8, 2023 through May 11, 2023. Prior to the workshop TJPA had many technical meetings with the FTA and PMOC for detailed review of many program scope areas as well as the program schedule and capital cost estimate. After the risk workshop, TJPA continued to provide the FTA and PMOC with additional details on the program schedule and capital cost estimate in support of the PMOC work adjusting the risk model schedule and costs baselines. On February 17, 2023, the TJPA Executive Director formally submitted TJPA's requests to the FTA for approval to Enter Engineering and to conduct the New Starts Project Rating. On March 8, 2023, TJPA provided the FTA with most of the remaining documents required to conduct the Project Rating for the FTA New Starts Program. Through May 19, 2023, TJPA continued work on planned monthly, quarterly and targeted progress updates in the areas of CIG process, risk management, value engineering, program funding and constructability as well as work on the property acquisitions, critical third-party agreements and engagement with the other 5 project stakeholders, including Caltrain, and continued work on extending the stakeholder MOU past the expiration date in June 2023. TJPA continued to advance design work on the three Enabling (Early Action) Program projects. TJPA also continued preparations for procurement of the PM/CM contract this year.*

### **1.3 Major Issues and/or Concerns**



No major issues or concerns have been identified by the PMOC at this time.

#### 1.4 Status of Key Indicators Dashboard (Post Grant)

The Key Indicators Dashboard will be completed upon award of the Full Funding Grant Agreement and then updated monthly thereafter.

#### 1.5 Core Accountability Items

Core Accountability Items				
		Original (Grant)	Current Forecast** (Million \$)	PMOC Assessment of Current Forecast
Cost	Capital Cost Estimate	(Note 1)	6,987	Under Review
Contingency	Unallocated Contingency	(Note 1)	494	Under Review
	Allocated Contingency	(Note 1)	1,226	Under Review
	Total Contingency	(Note 1)	1,720	Under Review
Schedule	Revenue Service Date	(Note 1)	Sep. 30, 2032	Acceptable
Note 1: FFGA anticipated in 2025.				
Project Progress:		Amount (\$M)		Percent of Total
Total Expenditures	Actual cost of all eligible expenditures completed to date	(Note 2)		(Note 2)
Planned Value to Date	Estimated value of all work planned to date	(Note 2)		(Note 2)
Actual Value to Date	Actual value of all work completed to date	(Note 2)		(Note 2)
Note 2: Sponsor is compiling costs/value to date.				
Contract Status:		Amount (\$)		Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded	(Note 2)		(Note 2)
Construction Contracts Awarded	Value of construction contracts awarded; % of	(Note 3)		(Note 3)

		total construction value to be awarded		
<b>Physical Construction Completed</b>		Value of physical construction (infrastructure) completed; % of total construction value completed	(Note 3)	(Note 3)
<i><b>Note 3:</b> Construction start anticipated in late 2Q-2024 for Early Action contracts. No contracts awarded to date.</i>				
<b>Rolling Stock Vehicle Status</b>		<b>Date Awarded</b>	<b>No. Ordered</b>	<b>No. Delivered</b>
(There are no direct vehicle procurements by TJPA included in the project scope of work)*		N/A	N/A	N/A
<b>Major Issues</b>	<b>Date Identified</b>	<b>Status</b>	<b>Project Sponsor Action</b>	<b>PMOC Recommendation</b>
N/A	N/A	N/A	N/A	N/A
<b>Date of Next Quarterly Meeting (if known):</b>			Next Monthly Meeting is on June 15, 2023. (Note: The May 2023 Monthly Meeting will not be held due to the required efforts on the OP40 Risk and Contingency Review and results during May 2023.)	

\*During April 2023, TJPA notified the FTA and PMOC that Caltrain, under its current procurement of electric multiple-unit vehicles (EMUs), has an option to add additional vehicles and TJPA requested permission to add one (1) additional 7-EMU trainset to the Transbay DTX program. Refer to report Section 12.2 for details.

\*\*Contingency will be reconciled with the adjusted SCC Workbook for the next reporting period.

## **2.0 OBSERVATIONS AND FINDINGS**

### **2.1 Summary of Monitoring Activities**

*This report covers the period from March 23, 2023 through May 19, 2023. Because there was no monthly FTA/PMOC progress meeting with TJPA during May 2023, the PMOC is reporting on detailed project updates through April 27, 2023 only.*

PMOC monitoring included the following activities:

- *Continued readiness review of documents verified by TJPA as ready for PMOC review.*
- *Continued to monitor and review document status in the detailed OP51 checklist for tracking Sponsor documents submission, PMOC review and finalization.*
- *Worked on draft PMOC Monthly Monitoring Report for March 2023.*
- *Continued review of updated Sponsor provided presentations on Transbay DTX Project, Phase 2, that included details of the program status, current initiatives, and schedule of major milestones for advancing the utility relocation design to 60%, the 20-year Financial Plan, Critical Third-Party Agreements and Property Acquisition along the planned project alignment.*
- *Prepared agenda for the FTA/PMOC Monthly Monitoring Meeting with Sponsor on April 27, 2023 and co-directed the meeting with the FTA. Coordinated future monthly meetings with the FTA and Sponsor.*
- *Attended FTA meeting with TJPA on April 13, 2023 for TJPA's request to include the cost of an additional electric trainset by Caltrain in the OP40 Risk Review as well as the Letter of No Prejudice (LONP) being developed for the Enabling (Early Action) Work Program.*
- *Attended FTA meeting with TJPA on May 5, 2023 regarding project risk clarifications from Caltrain.*
- *Supported project input to preparations for the FTA/PMOC Risk Assessment*
- *Attended FTA Monthly CIG check-in meeting.*
- *Attended Sponsor program management and technical meetings:*
  - *Integrated Project Management Team semimonthly meetings (Apr. 11 and May 12, 2023,)*

*In addition to the above periodic monitoring activities, the PMOC continued their review in support of TJPA's request to advance the project into the Engineering phase. This review is being conducted in accordance with FTA OP51, Readiness to Enter Engineering, dated September 2015, under the PMOC's Project Programmatic Task Order. However, many of the PMOC's OP51 review activities in that effort overlap with the periodic monitoring activities and are therefore also summarized in the applicable sections of this report. The detailed results of the readiness review will be documented in a separate report issued under the PMOC's Project Programmatic Task Order.*

### **2.2 Oversight Triggers**

The PMOC will perform monthly oversight of the project and continue through the Engineering Phase to award of the Full Funding Grant Agreement in accordance with direction from the FTA.

### **2.3 Project Management Plan (PMP) and Sub-Plans**

#### **Project Management Plan (PMP)**

FTA requested a review be undertaken of the Transbay DTX Project's PMP as part of the PMOC Readiness for Entry to Engineering review. The Transbay DTX Program Management Plan Revision 0, dated February 2023, was prepared by TJPA and submitted for FTA/PMOC review in March 2023. *The PMOC has completed its review for a project entering Engineering in accordance with FTA OP20, Project Management Plan, dated September 2015, and is preparing the draft OP20 report.*

#### **Safety and Security Management Plan (SSMP)**

*A Transbay DTX Project SSMP has been prepared by TJPA and was submitted to FTA/PMOC on April 17, 2023. TJPA's SSMP is now under review by the PMOC in accordance with OP22, Safety and Security Management Plan Review, dated September 2015, in for a project requesting Entry to Engineering. The PMOC also expects that in the future as contractors are added to the project implementation team, their safety and security plans will be incorporated under TJPA's program, and their plans will also be reviewed by FTA/PMOC once they are approved by TJPA.*

#### **Real Estate Acquisition and Management Plan (RAMP)**

In March 2023, TJPA submitted its Transbay DTX Draft RAMP Revision D, dated October 2022, for FTA/PMOC review in support of the PMOC's Readiness for Entry to Engineering review. The submittal of the RAMP was accompanied by a copy of TJPA's Relocation Assistance Program Summary. *The PMOC continued its review of both documents in accordance with OP23, Real Estate Acquisition and Management Plan Review, dated September 2015, for a project prior to entering Engineering.*

#### **Quality Assurance Plan (QAP)**

TJPA submitted its Transbay DTX QAP to the extent that it has been developed at this stage of the project. The March 2023 submittal consisted of the following documents:

- TJPA's overarching Quality Management System, Revision 3, dated December 28, 2022.
- The Program Management / Project Controls (PMPC) consultant, AECOM / Mott McDonald, Quality Management Plan Revision 1, dated March 1, 2022.
- The General Engineering Consultant (GEC), Parsons, Design Quality Management Plan Revision 1, Parts 1 and 2 of 2, dated July 12, 2021.
- Documentation of the PMCM review and acceptance of the GEC Design Quality Management Plan

*The PMOC has completed its review of the above documents in accordance with OP24, Quality Assurance – Quality Control Review, dated September 2015, and is preparing the draft OP24 report. The PMOC also expects that in the future as contractors are added to the project implementation team, their quality plans will be incorporated under TJPA's program, and their plans will also be reviewed by FTA/PMOC once they are approved by TJPA.*

### **Rail Fleet Management Plan (RFMP)**

Since Caltrain will be the operator of the Transbay DTX project when it goes into revenue service, TJPA submitted Caltrain's RFMP, the Caltrain Fleet Management Plan, Revision 3, dated December 7, 2021, in March 2023 in support of the Transbay DTX project review for readiness to enter Engineering. The PMOC's cursory review noted that while this Fleet Plan reflects operations as of the completion of the electrification of the system and includes the new electric fleet, it does not reflect the operation over the extended distance and additional station and terminal added by the Transbay DTX project. The PMOC advised of the need for an update or amendment to the Caltrain Fleet Management Plan that addresses operations over the added Transbay DTX territory to demonstrate that the system will provide the level of service committed in the project documents. TJPA stated that an addendum to the Fleet Plan will be prepared and submitted. *In April 2023, TJPA submitted a supplemental memo, "Fleet Management Plan Tech Memo to Validate 4 TPH Service" by DB E.C.O North America, Inc., which the PMOC will analyze it under the eight-step approach for vehicle demand forecast as outlined in the FTA Guidance (referenced in OP37, Fleet Management Plan Review, dated September 2015).*

### **Risk and Contingency Management Plan (RCMP)**

TJPA submitted its Transbay DTX RCMP, the Transbay Program Downtown Rail Extension Risk and Contingency Management Plan, Revision 0, dated October 27, 2021, in March 2023. The PMOC commenced a review of the RCMP Revision 0 following the guidance of FTA OP40, "Risk and Contingency Review," dated March 2022. The PMOC's cursory review found that the Plan is comprehensive and well-written but is still missing several elements due to the stage of advancement of the project. These sections will be able to be completed after the results of the FTA Risk Assessment are available and reviewed by TJPA. *The PMOC's review in accordance with OP40 continues.*

## **2.4 Management Capacity and Capability**

As part of the FTA/PMOC review of the project's readiness for Entry to Engineering phase, in March 2023 TJPA provided the PMP and supporting documentation to demonstrate that the project team has the management capacity and capability successfully advance implementation of the Transbay DTX project. The PMOC commenced a review of the TJPA applicable documentation in accordance with OP21, Management Capacity and Capability Review, dated September 2015. The results of this review will be summarized in this Monthly Monitoring Report, with the details documented in a separate OP21 report. *During April 2023, the PMOC submitted a Request for Information (RFI) for documents and items such as organization charts, position descriptions and other similar documents related to the staffing plan so that the review can be completed. The PMOC met with TJPA on May 5, 2023 to review the RFI in detail and to provide the PMOC with clarification on selected requested items.*

## **2.5 NEPA Process and Environmental Mitigation**

The project received a Record of Decision (ROD) from the FTA for the Transbay Terminal / Caltrain Downtown Extension / Redevelopment in 2005, a ROD from the Federal Railroad Administration (FRA) for the Transbay Transit Center Trainbox in 2010, and an amended ROD from FTA for the Transbay Terminal / Caltrain Downtown Extension / Redevelopment in 2019. Prior to the completion of the current Project Development (PD) phase, the project is seeking FTA NEPA clearance related to several subsequent modifications of the project's footprint.

*April 2023 Sponsor updates included:*

- *The National Environmental Policy Act (NEPA) continues to be on schedule.*
- *Section 106 Package is under SHPO review (60-day).*
- *TJPA 2<sup>nd</sup> Administrative Draft reviewed and approved by FTA, pending inclusion of SHPO comments on Section 106.*

As part of the FTA/PMOC review of the project's readiness for Entry to Engineering phase, in March 2023 TJPA provided the 30% design and supporting documentation to demonstrate that the Transbay DTX Project meets all the NEPA and environmental mitigation commitments found in the FEIS and ROD. *During April and May 2023, the PMOC continued its review of the TJPA applicable documentation in accordance with OP32B, NEPA and Design Document Comparison, dated September 2015. The final results of this NEPA comparison review will be summarized in this report, with the details documented in a separate OP32B report.*

## **2.6 Project Delivery Method and Procurement**

The Sponsor plans to construct the project using three project delivery methods.

TJPA Board-approved delivery approach consists of:

- Design-Bid-Build (DBB) for Advanced Packages Program (Early Action contracts) for Utilities and Railyard Infrastructure Relocation, and Site demolition.
- Progressive Design-Build (PDB) for main civil and tunnel
- Construction Manager-General Contractor (CMGC) for track and rail systems, station fit-out.

The PMOC previously noted that the proposed approach using three different project delivery methods will require a high level of both design and construction interface coordination and management.

*Additionally, because the Enabling Works Program is scheduled to start during Q2-2024, prior to award of the FFGA that is targeted for 2025, TJPA has acknowledged the need for development of the basis for a Letter of No Prejudice (LONP) to qualify the costs of the Enabling Works Program under the FFGA.*

## **2.7 Design**

The Sponsor has completed preparing documentation to demonstrate that the Transbay DTX Project Preliminary 30% Design Package includes all the scope of work detailed in the Design Basis and Design Criteria and is consistent with all approved environmental review results. *As part of the FTA/PMOC-led Risk Assessment that is underway to support the review of the project's readiness to enter the Engineering phase, the PMOC continued its review of the project scope in accordance with OP32C, Project Scope Review, dated September 2015. For the purpose of the Risk Assessment, the versions of the scope, cost estimate, schedule and risk register are selected to be mutually and internally consistent. For that reason, the 30% "Combined PE Final Plans" and its supporting studies, investigations, design criteria, PE report, etc., have been provided by TJPA and are undergoing the PMOC's OP32C review. Multiple separate "break-out" meetings between*

*the applicable Subject Matter Experts of TJPA and the PMOC commenced to resolve any questions, clarification requests, etc. in advance of the Risk Workshop. The final results of this scope review will be summarized in this Monthly Monitoring Report, with the details documented in a separate Risk Assessment report to be issued under the PMOC's Project Programmatic Task Order.*

*April 2023 Sponsor updates included:*

- *Advance (Enabling) Works Program Status*
  - *Utility Relocation*
    - *60% Design plans and specifications are completed and under review.*
    - *Construction cost estimate and traffic management plan are expected in May 2023.*
  - *DTX Railyard Infrastructure Relocation*
    - *Design Kick-Off meeting with Caltrain Project Managers was held on March 30, 2023.*
    - *Rail yard site walk-through with Caltrain completed on April 18, 2023 and preliminary comments provided to GEC.*
    - *Site survey started and is in progress; topographic survey includes new OCS structures constructed under the Peninsula Corridor Electrification Project (PCEP); survey will not include the passenger platforms at Caltrain's existing Fourth and King Street Terminal.*
    - *Caltrain is performing an asset survey of the existing structures located in the railyard to determine what structures will be relocated and what structures are no longer needed and will be demolition.*
  - *Site Demolition*
    - *Scope anticipated in a future NTP to GEC*
    - *30% Design scheduled to start in mid-July 2023 with completion in late November 2023; PMOC notes that this is a 3-month delay to the August 2023 forecast completion date reported in March 2023.*
    - *Demolition involves work on 3 land parcels.*

## **2.8 Value Engineering and Constructability Reviews**

The Sponsor has conducted several Value Engineering and Constructability Reviews. The corresponding reports provided to the PMOC are being used for the PMOC's OP32C Project Scope Review.

## **2.9 Real Estate Acquisition and Relocation**

The Sponsor has completed the Real Estate Acquisition and Management Plan (RAMP). The PMOC continues its OP23 review of the Real Estate Acquisition and Management Plan.

*April 2023 Sponsor updates included:*

- *Status of property acquisitions and easements*
  - *11 total acquisitions, 3 in early stages – Phase 1 Environmental Site Assessments (ESA) completed; appraisal phase to start in May 2023.*
  - *14 partial acquisitions of subsurface easements and temporary construction easements*
  - *7 rock dowel easement acquisitions*
  - *Approximately 28 potential displacees identified – Relocation Impact Study underway; PMOC notes that previously forecast draft completion date of April 1, 2023 for initiation of public comment period was not met.*
  - *Public hearing on the Relocation Impact Study is anticipated in July 2021; PMOC notes that this a 2-month delay to the May 2023 completion time reported in March; TJPA noted that there is some schedule float for the Study and TJPA will utilize the time for additional outreach.*
- *Transbay DTX work at 4th and King Streets:*
  - *Caltrain (permanent easement holder)*
    - *TJPA continued its discussions with Caltrain on the term sheet with the goal of achieving a preliminary agreement with Caltrain prior to approaching Prologis; TJPA is now meeting with Caltrain on a weekly basis.*
  - *Prologis (property fee owner)*
    - *TJPA previously advised that the agreement timeline development continues to make progress but remains dependent on outcomes of TJPA's work with Caltrain.*

Regarding the Transbay DTX work at 4<sup>th</sup> and King Streets, the PMOC previously expressed concerns about the challenges presented in negotiating agreements involving three diverse entities: an operating rail transit agency; local city government; private sector property fee owner. Under these circumstances, the negotiation process can require additional time and may require revisions to the project design, including acquisition of the project Right-of-Way (ROW)

## **2.10 Third-Party Agreements and Utilities**

The project requires multiple third-party agreements and the temporary and permanent relocation of a large number of existing utilities. The PMOC continues to review the updated presentation material provided by the Sponsor and will continue in-depth reviews of specific project documents as they are made available.

*April 2023 Sponsor updates included:*

- **City and County of San Francisco (CCSF) Agencies (8) – Interagency Cooperative Agreement (ICA).**
  - The ICA will provide a single agreement between CCSF and TJPA for Phase 2 of the Transbay Program, with a common set of terms negotiated with TJPA counsel and one team from City Attorney's Office (CAO). The ICA is supplemented by two sets of appendices: Appendix A – Real Estate; Appendix B – Technical Scopes by Agency.
  - *ICA Drafting and Approval Timeline:*
    - *Final draft completed on February 28, 2023*



- *Final document completed on March 31, 2023*
  - *April-June 2023 – Actions by department boards and commissions for approvals and signoffs has started.*
  - *Agreement execution expected in July 2023*
- Joint Trench Agreements
  - *TJPA continues to work on a single agreement for all 12 parties.*
  - *Coordination with multiple telecom companies continues based on the utility relocation 60% design. There are 9 private telecom companies currently included in coordination discussions.*
- Peninsula Corridor Joint Powers Board
  - The Master Collaborative Agreement with Caltrain (MCA) will provide the respective roles and responsibilities of TJPA and Caltrain and detail the procedures for both to work cooperatively together for the design, construction, commissioning, operation, maintenance, funding, risk allocation and asset disposition of the Transbay DTX Project. TJPA continues working on the new MCA.
  - Workplan timeline and status:
    - By June 15, 2023, draft Term Sheets are expected to be completed by TJPA and Caltrain working group.
    - By August 12, 2023, final approval by TJPA and Caltrain boards
    - *TJPA noted areas of technical discussion and coordination with Caltrain on tunnel ventilation and fire & life safety as well as asset disposition and exercising Caltrain's option for an additional 7 EMU trainset.*
- Pacific Gas and Electric (PG&E)
  - TJPA continues negotiating an agreement with PG&E for providing power to the Transbay DTX project and the new underground rail station located at Fourth and Townsend Streets.
    - Agreement targeted completion date – August 2023.
    - Includes relocation of multiple gas, electric and telecom lines located along the project ROW.
    - Project liaisons actively working with PG&E for utility line relocations.
    - *Coordination is actively ongoing based on the 60% design.*

The PMOC had previously expressed the opinion is that the critical third-party agreements present a significant risk to the project based on the following observations:

- There are four critical third-party agreements identified by the Project Sponsor for the project.
- Three of the agreements involve multiple parties with diverse interests in both the private and public sectors.
- The scope of the agreements is wide and includes various combinations of the following key project elements:
  - Project design coordination
  - Modifications to existing infrastructure not owned by TJPA
  - Cost sharing
  - Construction coordination and support
  - Operation and maintenance of new rail system and terminal

## **2.11 Construction**

Construction had been forecast to commence during 4Q-2023 with the Early Action Advance Package contracts. *The forecast changed during March 2023 with the utility relocation work now scheduled to start late in 2Q-2024, a delay of approximately 5-6 months.*

## **2.12 Vehicle Technology and Procurement**

*There are no direct vehicle procurements by TJPA included in the original project scope of work.*

At the January 2023 Monthly Meeting with the FTA and PMOC, the Sponsor indicated that the current acquisition of electric rail vehicles as described in the 2018 Caltrain Rail Fleet Management Plan (RFMP) does not include a sufficient number of trains to support a 6 trains per peak hour per direction service to the Salesforce Transit Center terminal in 2032. *The Sponsor's current plan is to provide 4 electrified trains per peak hour per direction to the new underground Fourth and Townsend Station and the new underground Salesforce Transit Center Terminal, and 2 diesel peak hour per direction trains to the existing surface Fourth and King Station, for a total of 6 peak hour trains to and from San Francisco.* It was agreed that an RFMP addendum should be considered to address the needed fleet and operational changes that would be needed to support the new service, which was submitted in April 2023. *Refer to the Rail Fleet Management Plan discussion in Section 2.3 of this report for further details.*

- *During April 2023, TJPA notified the FTA that TJPA is considering a modification to the project definition to take advantage of a contract option available under Caltrain's current EMU rail car procurement and add one additional 7-car trainset under the Transbay DTX Project, Phase 2. Caltrain is securing funding to secure four (4) trainsets under the option (three diesel replacements and one spare). If TJPA decides to include one (1) trainset in the project definition, Caltrain will increase their option order to five (5) trainsets. TJPA presented the following details for Caltrain to exercise its contract option to add vehicles to their original base order.*
- *Timeline for execution of Caltrain's Stadler contract option:*
  - *Jun. 8, 2023 – TJPA Board of Directors meeting*
  - *Jul. 12, 2023 – Caltrain Finance Committee meeting*
  - *Aug. 3, 2023 – Caltrain Board of Directors meeting*
  - *Aug. 15, 2023 – Caltrain to exercise contract option with Stadler*
- *Cash Flow (exclusive of unallocated contingency):*
  - *\$59.5 million over 4 years – FY2024 to FY2028*
  - *7-EMU rail car train-set delivery by June 30, 2028*

*With the risk workshop upcoming in the near term, FTA and PMOC conferred and agreed that one additional trainset (7 vehicles) could be included in the scope of the project that would be evaluated in the risk assessment. FTA and PMOC concluded that in this case, the additional vehicle scope is sufficiently independent of the critical project dynamics, such that if TJPA's Board ultimately does not agree with including the vehicle cost within the DTX project scope, it could be reasonably easily removed from the results of the risk assessment. On April 25, 2023, TJPA provided a revised SCC workbook for the risk workshop that included the applicable SCC 70 costs, as well as a modified Risk Register. In the few days leading up to the workshop, TJPA and the*

*PMOC collaborated to work the vehicle scope into the summary schedule to be used for the PMOC schedule risk modeling.*

## **2.13 Project Cost**

The Sponsor has completed preparing/finalizing the components of the Program Cost Estimate. The Final Capital Cost Estimate was approved at the TJPA Board meeting on February 9, 2023.

*April 2023 Sponsor updates included:*

- Program Funding Status
  - Final Draft Joint TJPA/Caltrain 20-Year Financial Plan has been completed.
  - TJPA submitted its application for \$60 million in TIRCP Project Development / Engineering funds on February 10, 2023. *TJPA was notified in April 2023 that the funding has been awarded for the Transbay DTX Project, Phase 2.*
  - *The FTA's Financial Management Oversight Contractor (FMOC) assigned to the Transbay DTX Project, Phase 2 has commenced work. The FMOC Kick-Off Meeting was held on April 24, 2023 and TJPA is currently responding to the FMOC's RFIs.*
  - *TJPA submitted its application for a \$194 million Federal/State Partnership Grant.*
- Program Cost Status
  - Final Capital Cost Estimate, including recommended cost escalation, was approved by the TJPA Board on February 9, 2023, and included in the package submitted to the FTA for conducting the New Starts Project Rating
  - February 2023 Draft Full Transbay DTX Project Cost Estimate is \$6,987 million including finance cost.
  - The Final Capital Cost Estimate was submitted to the FMOC on March 8, 2023.
  - *TJPA will add approximately \$70 million, inclusive of unallocated contingency, to the Project Cost Estimate when management confirms the decision to add rolling stock to the Program for one 7 vehicle trainset. In the meantime, and to support the upcoming risk workshop, TJPA submitted an SCC workbook inclusive of the one trainset, which reflects a total project cost of \$7,057 million.*
  - *TJPA is preparing a bottom-up cost estimate for the SCC80 elements based on its recently developed staffing plan to confirm or modify its current estimate based on percentages of the estimated construction cost.*
  - *Forecast of cost estimates updates for Enabling (Early Action) Works Program:*
    - *60% Utilities Relocation Design– May 2023*
    - *30% 4<sup>th</sup> and King Streets Sitework Design – September 2023*
    - *30% Building Demolition Design – November 2023*

*As part of the FTA/PMOC-led Risk Assessment underway to support the review of the project's readiness to enter the Engineering phase, the PMOC continues its review of the project cost estimate in accordance with OP33, Capital Cost Estimate Review, dated September 2015. For the purpose of the Risk Assessment, the versions of the scope, cost estimate, schedule and risk register*

are selected to be mutually and internally consistent. For that reason, the February 28, 2023 version of the FTA Standard Cost Category Workbook and its supporting detailed cost estimate backup information is undergoing the OP33 review. *However, as noted above, in April 2023, the cost estimate for the risk assessment was modified to include vehicle costs, which are also being included in the PMOC's OP33 review.* The final results of this cost estimate review will be summarized in this Monthly Monitoring Report, with the details documented in a separate report issued under the PMOC's Project Programmatic Task Order.

## **2.14 Project Schedule**

The Sponsor has completed preparing/finalizing the Project Master Schedule. The Master Schedule was approved at the TJPA February 9, 2023 Board meeting.

*April 2023 Sponsor updates included:*

- *Enabling (Early Action) Works Program schedule updates*
  - *Utilities Relocation – 90% Design start June 1, 2023*
  - *Building Demolition – 30% Design start July 1, 2023*
  - *4<sup>th</sup> and King Streets Sitework – 30% Design finish September 30, 2023*

*As part of the FTA/PMOC-led Risk Assessment underway to support the review of the project's readiness to enter the Engineering phase, the PMOC continued its review of the project schedule in accordance with OP34, Project Schedule Review, dated September 2015. For the purpose of the Risk Assessment, the versions of the scope, cost estimate, schedule and risk register are selected to be mutually and internally consistent. For that reason, the January 2023 progress update of the schedule is undergoing the OP34 review to support the Risk Assessment. During the review, the PMOC found that the level of detail in the construction and start-up phases of the project was not sufficient to meet either FTA expectations at Entry to Engineering or to support the schedule risk modeling. Accordingly, a series of workshop meetings with the TJPA and PMOC subject matter experts commenced and resulted in the addition of the rail yard phasing, a greater definition of construction and startup activities, and inclusion of the key dates related to the addition of vehicle scope to the project. The final results of this schedule review will be summarized in this Monthly Monitoring Report, with the details documented in a separate report issued under the PMOC's Project Programmatic Task Order.*

## **2.15 Project Risk**

TJPA had a comprehensive risk management process in place prior to the assignment of the PMOC during the Project Development phase. The process is guided by the project's RCMP, initially dated October 2021. (See Section 2.3 of this report for the status of the RCMP.) *The Sponsor is currently updating the Project Risk Register and providing a summary report to management on a quarterly basis. The top project risks as of the latest update of TJPA's Risk Register are presented in Attachment C of this report.*

TJPA also completed a Quantitative Risk Assessment in late 2022, which informed the project cost estimate and schedule that was submitted in support of TJPA's request to enter the

Engineering phase. TJPA's most recent *Quarterly risk update* was conducted in late March 2023 to review characterization of all current risks and to identify new risks.

*The PMOC continues with the project scope, cost, and schedule characterization reviews to support the FTA/PMOC led Risk Assessment that will validate the FTA expectations for a project requesting entry to the Engineering phase. The FTA/PMOC Risk Assessment will be conducted under the PMOC's Project Programmatic Task Order in accordance with OP40, Risk and Contingency Review, dated March 2022. During April and May 2023, the PMOC arranged and directed technical working meetings involving the associated subject matter experts (SMEs) from both the PMOC and TJPA for scope, cost and schedule. The working meetings held include:*

- *Utility Relocation Scope – April 3, 2023*
- *Master Schedule Review – April 4, 26, and 28, and May 11, 2023*
- *Existing Building Underpinning Scope – April 13, 2023*
- *Trackwork Scope – April 19, 2023*
- *Systems Scope – April 21, 2023*
- *Capital Cost Estimate Review – April 21, 26, and 28, 2023*
- *Railyard Reconfiguration and DTX/Mainline Tie-in – April 25, and May 5, 2023*
- *Management Capacity and Capability – May 5, 2023*

*Also under the PMOC's Project Programmatic Task Order, a hybrid Risk Workshop was conducted both in person in San Francisco and virtually by Teams during May 8 (which included a walking tour of the project) through May 10, and into the "contingency" day of May 11, 2023. Refer to Attachment I for the risk workshop agenda.*

*The workshop concluded with a list of open items with committed submittal dates, which were met by TJPA, as follows:*

- *Updated SCC workbook that includes revised vehicle costs, as well as vehicle retrofit costs (by May 15, 2023),*
- *Revised Summary Schedule that includes the changes worked out during the May 11, 2023 SME-to-SME workshop (by May 17, 2023),*
- *The value or range of values of the schedule impact used by TJPA for Risk Items on the Risk Register with a schedule score of "5" (by May 17, 2023),*
- *Relative to professional services, the level of effort and SCC subcodes for TJPA/consultant reviews of the PDB designs during the design phase (by May 17, 2023),*
- *Relative to professional services, the level of effort and SCC subcodes for TJPA/consultant Design Support During Construction for all construction contracts, (by May 17, 2023), and*
- *Updated Risk Register incorporating changes made during the workshop (May 19, 2023).*

*The PMOC then used the information received during pre-workshop reviews, from the workshop, and from the revised documents received throughout the week following the workshop to conduct the Monte Carlo schedule risk analysis model and the FTA top-down Beta Range Factor cost risk analysis model. The PMOC will consolidate the results and deliver them to the FTA within 8-10*

*business days after completion of the risk workshop. After FTA review, the results will then be shared with TJPA upon direction from the FTA.*

Based on the Caltrain Peninsula Corridor Electrification Project (PCEP) presentation to the FTA/PMOC on March 21, 2023, the PMOC observes that a significant scope change will now be required regarding Transbay DTX work involving or affecting the Caltrain rail yard and rail system infrastructure from the project limits to the existing Caltrain terminal at 4<sup>th</sup> and King Streets. TJPA has agreed that Transbay DTX work within Caltrain's property cannot start until after the PCEP work has been completed and is in revenue service that is currently forecast for September 2024. The as-built PCEP facilities will present conflicts with the planned Transbay DTX work and will require TJPA to relocate some Overhead Contact System (OCS) support structures. This additional work scope will need to be performed during overnight track outages and on weekends and will require close coordination with Caltrain operations and force account resources. As such, this development has created a significant new risk with potentially high cost and schedule impacts.

## **2.16 Quality Assurance/Quality Control**

The Sponsor has completed preparing the Project Quality Assurance Plan. The PMOC continues its OP24 review of the Sponsor's Project Quality Assurance/Quality Control (QA/QC) Program.

## **2.17 Safety and Security**

The Sponsor has completed the Project Safety and Security Management Plan (SSMP) and provided the SSMP to the PMOC on April 17, 2023. *The PMOC has commenced the OP22 review of the Project Safety and Security Management Plan.*

## **2.18 Americans with Disabilities Act (ADA)**

The PMOC will review ADA compliance during the following reviews:

- OP20 – Project Management Plan
- OP22 – Project Safety and Security Management Plan
- OP32C – Project Scope Review

## **2.19 Buy America**

The PMOC will review Buy America compliance during the following reviews:

- OP20 – Project Management Plan
- OP32C – Project Scope Review

## **2.20 Start-Up, Commissioning, Testing**

Project is currently at the Preliminary Engineering/Design Stage, approximately 30%. The PMOC will evaluate the adequacy of the system start-up, testing and commissioning provisions in the

Design Basis and Design Criteria documents that will be reviewed for the OP32C Project Scope Review.

## **2.21 Before-and-After Study Reporting**

The PMOC will confirm that the Sponsor has addressed the requirements for the Before-and-After Study Reporting during the following reviews:

- OP21 – Management Capacity and Capability
- OP33 – Capital Cost Estimate
- OP51 – Readiness to Enter Engineering

## **2.22 Lessons Learned**

OP26 – Lessons Learned is currently not included in the PMOC scope of work for either the Regional or Programmatic Task Orders for services on the Transbay Downtown Rail Extension Project, Phase 2.

## **2.23 Actions Items Table**

*Action Items on significant issues/needs will commence during June 2023.*

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status / Action Required

### 3.0 PROJECT MONITORING REPORT ATTACHMENTS

- A. List of Acronyms
- B. Safety and Security Checklist – In preparation by the Sponsor.
- C. Top 5 Project Risks – Listed upon completion of the OP40 Risk and Contingency Review.
- D. Awarded Contracts – Working with Sponsor to include all current contracts for professional services.
- E. Rolling Stock Vehicle Status Report – N/A.
- F. Project Milestones/Key Events – *Will be included in June 2023 Monthly Report based on the Final Draft Master Schedule and current schedule updates.*
- G. Roadmap to Revenue Operations – *Will provide Roadmaps for Entry to Engineering and FFGA based on FTA development details.*
- H. Project Map
- I. *Risk Workshop Agenda – May 2023*



## **Attachment A: List of Acronyms**

ACOR.... Alternate Contracting Officer Representative  
ADA..... Americans with Disabilities Act  
CAO.....City Attorney’s Office  
CCSF.....City and County of San Francisco  
CIG.....Capital Investment Grant  
CM/GC....Construction Manager – General Contractor  
DTX.....Downtown Rail Extension ( as in “Transbay DTX Project”)  
DBB.....Design/Bid/Build  
EMU.....Electric Multiple-Unit (rail car vehicle)  
FEIS.....Final Environmental Impact Study  
FFGA.....Full Funding Grant Agreement  
FMOC.....Financial Management Oversight Contractor  
FTA..... Federal Transit Administration  
GEC.....General Engineering Consultant  
ICA.....Interagency Cooperative Agreement  
IPMT.....Integrated Program Management Team  
LONP.....Letter of No Prejudice  
LPA.....Locally Preferred Alternative  
MCA.....Mater Collaborative Agreement  
NEPA.....National Environmental Policy Act  
OCS.....Overhead Contact System  
PCEP.....Peninsula Corridor Electrification Project (Caltrain)  
PDB.....Progressive Design-Build  
PG&E.....Pacific Gas & Electric  
RAMP.....Real Estate Acquisition and Management Plan  
RCMP.....Risk and Contingency Management Plan  
RFMP.....Rail Fleet Management Plan  
ROD..... Record of Decision  
SEQA.....State Environmental Quality Act (California)  
TJPA.....Transbay Joint Powers Authority  
PMOC.....Project Management Oversight Contractor  
SSMP.....Safety and Security Management Plan

## **Attachment B: Safety and Security Checklist**

## **Attachment C: Top Project Risks**

The following are the top Transbay DTX Project risks and the associated unmitigated risk scores as of the Sponsor's Q4 2022 Risk Register update:

<b>Risk ID</b>	<b>Description</b>	<b>Score</b>
138	Delay due to scope adjustment to advance work package for Caltrain 4th & King site work	25
137	Design and cost estimate impact due to unresolved design criteria variances with Caltrain	20
CR13	Failure to secure cut and cover off-street muck-out staging area and having to muck out through ports in decking	20
CR3	Delay in acquisition of funding – risk that 100% committed funding plan is not identified by time of FFGA approval (2025).	20
CR10	Delays in property acquisition could prolong the schedule.	15
37	Delays/Design Changes Resulting from Agency Reviews	15
CR2	Delay in acquisition of funding – risk that 30% of non-New Starts funds are not committed by February 2023	15
130	Inability to secure infusion of funds for right-of-way and other advance work packages causes delay	15
132	Delay in acquisition of funding – risk that 50% of non-New Starts funds are not committed by August 2023	15
133	Delay in acquisition of funding – Operating & maintenance funding plan for New Starts	15

*Risk Score/Rank*

		Probability/Likelihood				
		1	2	3	4	5
Consequence / Severity	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

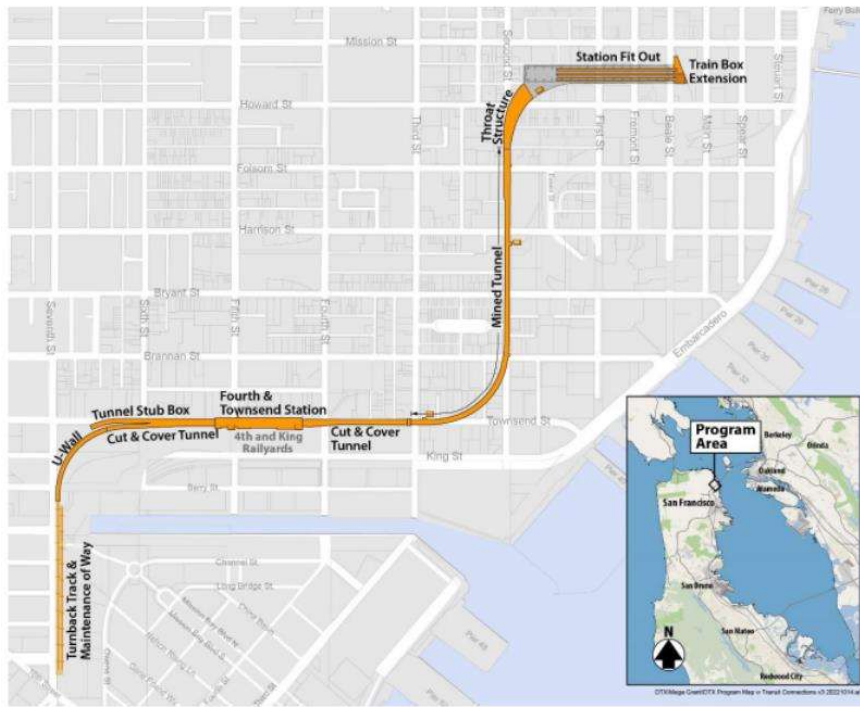
**Attachment D: Awarded Contracts**

**Attachment E: Rolling Stock Vehicle Status Report**

## **Attachment F: Project Milestones/Key Events**

## **Attachment G: Roadmap to Revenue Operations**

## Attachment H: Project Map





***Attachment I: Risk Workshop Agenda***

Monday, May 8, 2023 – Day 1 (all times Pacific)		
Meet at 375 Beale Street, Yerba Buena Room		
Day / Time	Workshop Topic	Key Participants
8:30 AM	<b>Introductions (FTA/TJPA/PMOC)</b> Introductions Opening remarks – FTA Region 9 and HQ Opening Remarks - TJPA	<b>FTA (Lead)</b> <ul style="list-style-type: none"> <li>Corey Walker (FTA HQ)</li> <li>Amy Changchien (FTA R9)</li> </ul> <b>TJPA</b> <ul style="list-style-type: none"> <li>Adam Van de Water</li> </ul>
9:00 AM	<b>Overview of the Workshop</b>	<b>PMOC:</b> Debbie Boe (PMOC)
9:15 AM	<b>Scope Discussion (TJPA Overview)</b> <ul style="list-style-type: none"> <li>Broad Overview and status of scope elements               <ul style="list-style-type: none"> <li>Enabling Works</li> <li>Tunneling (mined, cut and cover)</li> <li>At-grade</li> <li>Retained cut.</li> <li>Stations including MEP.</li> <li>Trackwork</li> <li>Yard work</li> <li>Systems (tunnel ventilation, traction power, train control, communications, lighting)</li> <li>ROW high level (details during Wednesday session)</li> <li>Vehicles</li> </ul> </li> </ul>	<b>TJPA (Lead):</b> <ul style="list-style-type: none"> <li>Anna Harvey (TJPA)</li> <li>Meghan Murphy (PMPC)</li> </ul> <b>Discussion:</b> <ul style="list-style-type: none"> <li>All</li> </ul>
10:15 AM	<b>Contract Packaging (TJPA Overview)</b> <ul style="list-style-type: none"> <li>Planned contracts and delivery method for each.</li> <li>The scope within each (including what may be moving)</li> <li>Why the scope was allocated in that manner.</li> <li>Status of procurement/procurement planning</li> </ul>	<b>TJPA (Lead):</b> <ul style="list-style-type: none"> <li>Alfonso Rodriguez (TJPA)</li> <li>Meghan Murphy (PMPC)</li> <li>David Hunt (PMPC)</li> </ul> <b>Discussion:</b> <ul style="list-style-type: none"> <li>All</li> </ul>
10:45 AM	<b>Break</b>	

Monday, May 8, 2023 – Day 1 (all times Pacific)		
Meet at 375 Beale Street, Yerba Buena Room		
Day / Time	Workshop Topic	Key Participants
11:00	<b>Schedule Discussion</b> <ul style="list-style-type: none"> <li>Overview, including: <ul style="list-style-type: none"> <li>Federal process for EE and FFGA</li> <li>Third-Party Agreements</li> <li>Design</li> <li>Procurement</li> <li>Construction</li> <li>ROW high level (detail in Wednesday Session)</li> <li>Vehicles</li> <li>Work windows, work hour restrictions, etc.</li> </ul> </li> <li>Basis of Schedule/ Assumptions / Key Interfaces</li> </ul>	<b>TJPA (Lead):</b> <ul style="list-style-type: none"> <li>Becky Mincio (TJPA)</li> <li>Danson Kelii (virtual) (GEC)</li> <li>Payam Ferdowsi (GEC)</li> <li>John Stolz (GEC)</li> </ul> <b>Discussion:</b> <ul style="list-style-type: none"> <li>Burt Kohlman (PMOC)</li> <li>All</li> </ul>
12:00 PM	<b>Cost Presentation (TJPA Overview)</b> <ul style="list-style-type: none"> <li>Element Level Overview <ul style="list-style-type: none"> <li>Construction SCC 10-50</li> <li>Temporary facilities/indirect costs (SCC 40.08)</li> <li>ROW SCC 60 high level (detail in Day 3 Session)</li> <li>Vehicles SCC 70</li> <li>Professional Services SCC 80 high level (detail in Day 3 session)</li> </ul> </li> <li>Basis of Cost Estimate /Assumptions / Exclusions</li> </ul>	<b>TJPA (Lead):</b> <ul style="list-style-type: none"> <li>David Hunt (PMPC)</li> <li>Michael Jackson (GEC)</li> <li>John Stolz (GEC)</li> </ul> <b>Discussion:</b> <ul style="list-style-type: none"> <li>Moses Gaster (PMOC)</li> <li>All</li> </ul>
1:00 PM	<b>Lunch / Summarize Day 1/ Review Agenda for Day 2</b>	
2:00 PM	<b>Tour</b> <ul style="list-style-type: none"> <li>Salesforce Station box</li> <li>Throat area</li> <li>Underpinning locations</li> <li>Caltrain Rail Yard and DTX / Mainline tie-in</li> <li>Tunnel portal area</li> </ul>	All
5:00 PM	<b>End Day 1</b>	

## Tuesday, May 9, 2023 – Day 2 (all times Pacific)

Meet at 375 Beale Street, Temazcal Room

Day / Time	Workshop Topic	Key Participants
8:30 AM	<b>Focused Risk Review - Utility Relocations</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Aged utilities</li> <li>Status of underground investigations</li> <li>Schedule responsiveness of utilities relocating at own cost</li> <li>Avoiding conflicts between advanced relocated utilities and later contracts</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 80 Combined sewer</li> <li>No. CR12 Private utility relocation</li> <li>No. 148 Sewer impact on PDB</li> <li>Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Nick Humby (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Will Spargur (PMPC)</li> <li>Meghan Murphy (PMPC)</li> <li>Anna Harvey (TJPA)</li> <li>Todd Mayen (GEC)</li> </ul>
10:00 AM	<b>Break</b>	
10:15 AM	<b>Focused Risk Register Review - Caltrain Yard</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Status of discussion/agreement with Caltrain / Operator</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 138 Funding for reconfiguration</li> <li>No. 73 Potential Development</li> <li>Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Nick Humby (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Alfonso Rodriguez (TJPA)</li> <li>Dahlia Chazan/delegate (Caltrain)</li> <li>Andrea Miller (TJPA)</li> <li>Greg Oslund (Caltrain PM)</li> <li>Meghan Murphy (PMPC)</li> <li>Chukwuma Umolu (GEC)</li> <li>Lindsay Yamane (GEC)</li> </ul>
12:00 PM	<b>Lunch</b>	

Tuesday, May 9, 2023 – Day 2 (all times Pacific)		
Meet at 375 Beale Street, Temazcal Room		
Day / Time	Workshop Topic	Key Participants
1:00 PM	<b>Focused Risk Review - Tunneling (Cut and Cover)</b> <ul style="list-style-type: none"> <li>• Discussion: <ul style="list-style-type: none"> <li>– MPT issues</li> <li>– Street restoration expectations</li> <li>– Groundwater management</li> </ul> </li> <li>• Review Risks: <ul style="list-style-type: none"> <li>– No. 47 General Order 95 (also to mined tunnel, stations?)</li> <li>– No. 139 Noise and vibration</li> <li>– No. CR13 Mucking</li> <li>– No. CR14 Foundations 655 4<sup>th</sup> Street</li> <li>– No. 137 Caltrain design criteria</li> <li>– No. 144 Vent structure timing</li> <li>– No. 145 Schedule impact of 6<sup>th</sup> Street sewer</li> <li>– No. 32 “Civils” contract</li> <li>– No. 131 delayed Fire Marshall review</li> <li>– No. 142 Fire Marshall adds scope.</li> <li>– Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>• Debbie Boe (PMOC)</li> <li>• Brian TerBush (virtual) (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>• Kimo Okamitsu (GEC)</li> <li>• Rebecca Wong (GEC)</li> <li>• Meghan Murphy (PMPC)</li> </ul>
3:00 PM	<b>Break</b>	
3:15 PM	<b>Focused Risk Review – Tunneling-(mined)</b> <ul style="list-style-type: none"> <li>• Discussion <ul style="list-style-type: none"> <li>– Production rate (Issue 14)</li> <li>– Construction dewatering / permanent tunnel drainage</li> <li>– Construction noise requirements and management</li> <li>– Waterproofing membrane (Issue 107)</li> <li>– Approach to minimize Differing Site Conditions claims.</li> <li>– Groundwater management</li> </ul> </li> <li>• Review Risks: <ul style="list-style-type: none"> <li>– No. 47 General Order 95 (see also cut and cover)</li> <li>– No. 139 Noise and vibration (see also cut and cover)</li> <li>– No. CR13 Mucking (see also cut and cover)</li> <li>– No. 22 Structural collapse</li> <li>– No. CR15 Settlement / sinkhole.</li> <li>– Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>• Debbie Boe (PMOC)</li> <li>• Brian TerBush (virtual) (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>• Kush Chohan (GEC)</li> <li>• Yiming Sun (GEC)</li> <li>• John Stolz (GEC)</li> <li>• Meghan Murphy (PMPC)</li> </ul>
5:00 PM	<b>Summarize Day 2 / Review Agenda for Day 3</b>	<b>PMOC</b>

Wednesday, May 10, 2023 – Day 3 (all times Pacific)		
Meet at 375 Beale Street, Temazcal Room		
Day / Time	Workshop Topic	Key Participants
8:30 AM	<b>Focused Risk Review - Systems</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Potential change from conventional wayside to cab based signaling system.</li> <li>Interface to date with Fire Marshall on tunnel ventilation design</li> <li>Availability of qualified labor in electrification, SCADA, etc.</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. CR11 Signals Design Criteria conflicts</li> <li>No. 136 SCADA Design Criteria conflicts</li> <li>Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Mike Savchak (virtual) (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Matt Schreffler (PMPC)</li> <li>Lindsay Yamane (GEC)</li> <li>Dahlia Chazan/delegate (Caltrain)</li> </ul>
9:30 AM	<b>Focused Risk Review - Underpinning</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Form of agreement with building owner</li> <li>Tunnel structure to carry load of building.</li> <li>Constructability</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 141 underpinning 235 2<sup>nd</sup> Street delays</li> <li>Others that arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Steve Ehrlich (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Kimo Okamitsu (GEC)</li> <li>Becky Wong (GEC)</li> </ul>
10:30	<b>Break</b>	
10:45 AM	<b>Focused Risk Review - Stations</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Governing codes and AHJ for underground stations</li> <li>Susceptibility to scope creep by third parties</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 131 delayed Fire Marshall review</li> <li>No. 142 Fire Marshall adds scope.</li> <li>Others that may arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Steve Ehrlich (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Becky Wong (GEC)</li> <li>David Fung (GEC)</li> <li>Heather Kim (GEC)</li> </ul>
11:15 AM	<b>Focused Risk Review - Track</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Availability and lead times for required special trackwork.</li> <li>Laydown and staging</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>None identified</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Steve Ehrlich (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Chukwuma Umolu (GEC)</li> <li>Becky Wong (GEC)</li> </ul>

Wednesday, May 10, 2023 – Day 3 (all times Pacific)		
Meet at 375 Beale Street, Temazcal Room		
Day / Time	Workshop Topic	Key Participants
11:45 AM	<b>Focused Risk Review - Vehicles</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Current status of Rail Car contract</li> <li>Experience with Stadler's performance to date</li> <li>Strategy for burn-in and commissioning of DTX trainset</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 140 local share for cost to add to scope.</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Bill Thomsen (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Alfonso Rodriguez (TJPA)</li> <li>Dahlia Chazan (Caltrain)</li> <li>Greg Cameron (Caltrain PM)</li> <li>Russ Larson (Caltrain PM)</li> </ul>
12:00 PM	<b>Lunch</b>	
1:00 PM	<b>Focused Risk Review – Start-up, Test, Commissioning</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Overall requirements, implementation approach and responsibilities</li> <li>Development of testing / acceptance criteria among TJPA, Caltrain, and CHSRA for testing and certification</li> <li>Labor availability (engineering support, Caltrain, 3<sup>rd</sup> party operator)</li> <li>Schedule activities for regulators' approvals to operate.</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 28 Commissioning duration underestimated.</li> <li>Others that may arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Mike Savchak (virtual) (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Lindsay Yamane (GEC)</li> <li>Alfonso Rodriguez (TJPA)</li> <li>Dahlia Chazan (Caltrain)</li> </ul>
1:15 PM	<b>Focused Risk Review – Right-of-Way</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Cost and Basis (TJPA)</li> <li>Schedule and Basis (TJPA)</li> <li>Staffing (TJPA)</li> <li>"Goodwill" not a federally eligible cost</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. CR10 Schedule delays</li> <li>No. CR9 2<sup>nd</sup> and Howard</li> <li>Others that may arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Candy Spitzer (virtual) (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>John Updike (PMPC)</li> <li>Anna Harvey (TJPA)</li> </ul>

<b>Wednesday, May 10, 2023 – Day 3 (all times Pacific)</b>		
<b>Meet at 375 Beale Street, Temazcal Room</b>		
<b>Day / Time</b>	<b>Workshop Topic</b>	<b>Key Participants</b>
2:00 PM	<b>Focused Risk Review – Third Party Agreements</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>“Critical” vs. non-critical</li> <li>Expected timing for execution.</li> <li>Implications for each if not executed timely.</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>None identified</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Ed Williamson (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Anna Harvey (TJPA)</li> <li>Will Spargur (PMPC)</li> </ul>
2:30 PM	<b>Focused Risk Review – Staffing, Professional Services</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Cost estimate and Basis (TJPA)</li> <li>Timing for adding /shedding staff.</li> <li>Resource availability</li> <li>“Burn Rate” for schedule extensions.</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No. 37 Agency reviews (what is impacted?)</li> <li>Others that may arise</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>Andrew Royston (virtual) (PMOC)</li> <li>Ed Williamson (PMOC)</li> <li>Bill Thomsen (PMOC)</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Alfonso Rodriguez (TJPA)</li> <li>Becky Mincio (TJPA)</li> <li>Mark Perez (PMPC)</li> </ul>
3:00 PM	<b>Focused Risk Review – Other Program Level Risks</b> <ul style="list-style-type: none"> <li>Discussion: <ul style="list-style-type: none"> <li>Labor resource availability</li> <li>Strategy to avoid contractor-to-contractor conflicts.</li> <li>Interface to date with regulators (FRA, CPUC)</li> <li>Secondary Mitigation</li> </ul> </li> <li>Review Risks: <ul style="list-style-type: none"> <li>No.143 Market – limited bidders</li> <li>No. 135 Market escalation</li> <li>No. 127 agreement on delivery agency</li> <li>Nos. CR2, CR3, 129, 130, 132, 133 - Funding</li> </ul> </li> </ul>	<b>PMOC (Lead):</b> <ul style="list-style-type: none"> <li>Debbie Boe (PMOC)</li> <li>All</li> </ul> <b>DTX Team:</b> <ul style="list-style-type: none"> <li>Alfonso Rodriguez (TJPA)</li> <li>Andrea Miller (TJPA)</li> <li>Dave Hunt (PMPC)</li> <li>Joe O’Carroll (PMPC)</li> </ul>
3:30 PM	<b>Break</b>	
3:45 PM	<b>FTA / PMOC Only Huddle</b>	
4:45PM	<b>FTA/TJPA/PMOC</b> <ul style="list-style-type: none"> <li>Wrap up</li> <li>Open Items</li> <li>Next Steps</li> <li>Closing remarks</li> </ul>	<ul style="list-style-type: none"> <li>PMOC</li> <li>PMOC</li> <li>FTA</li> <li>FTA and TJPA</li> </ul>
5:00 PM	<b>Adjourn</b>	

NOTE: Thursday, May 11, 2023, has been arranged as a “contingency” day, to allow for possible follow up on any open items or issues that could not be covered in the main three-day schedule.