

MONTHLY MONITORING REPORT

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

Transbay Joint Powers Authority (TJPA)

San Francisco, CA

July 2023

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Length of time Assigned: 10 Months (October 2022 through July 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. *As of July 31, 2023, the project's estimated capital cost is \$7,091 million but is under revision to address changes in project scope.* 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.

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 much of the remaining documents required to conduct the Project Rating for the FTA New Starts Program. The project formally requested FTA approval to Enter Engineering in February 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.

After completion of the OP40 Risk Workshop, held on site from May 8, 2023, through May 11, 2023, 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. The PMOC then conducted the risk modeling, and FTA shared the results with TJPA on May 30, 2023, and provided the draft combined Scope, Cost, Schedule, Risk and Contingency Review Report on June 15, 2023. *However, finalization of the report was held, pending TJPA's planned decision by June 30, 2023, on whether to include one 7-EMU trainset in the scope of the project. TJPA's decision to exclude the trainset, but to include non-revenue vehicles and the train box that was completed under the Transbay DTX Phase 1 Program, was announced at the end of July 2023. As a result, the PMOC requested updated scope descriptions, SCC Workbook, and project schedule to support the re-performance of the FTA/PMOC quantitative cost and schedule risk modeling under OP40. TJPA committed to provide the updated information by August 1, 2023.*

*Through July 31, 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 and critical third-party agreements.*

*TJPA continued engagement with the other 5 project stakeholders, including Caltrain, to prepare the revised Stakeholder MOU, now scheduled to be approved later this year and to be in effect as of January 1, 2024. TJPA continued to advance design work on the three Early Action (Enabling) Work 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**

<b>Core Accountability Items</b>				
		<b>Original (Grant)</b>	<b>Current Forecast** (Million \$)</b>	<b>PMOC Assessment of Current Forecast</b>
<b>Cost</b>	Capital Cost Estimate	(Note 1)	7,091	Under Review
<b>Contingency</b>	Unallocated Contingency	(Note 1)	891	Under Review
	Allocated Contingency	(Note 1)	916	Under Review
	Total Contingency	(Note 1)	1,806	Under Review
<b>Schedule</b>	Revenue Service Date	(Note 1)	Sep. 30, 2032	Acceptable
<b><u>Note 1:</u> FFGA anticipated in 2025.</b>				
<b>Project Progress:</b>		<b>Amount (\$M)</b>	<b>Percent of Total</b>	
<b>Total Expenditures</b>	Actual cost of all eligible expenditures completed to date	(Note 2)	(Note 2)	
<b>Planned Value to Date</b>	Estimated value of all work planned to date	(Note 2)	(Note 2)	
<b>Actual Value to Date</b>	Actual value of all work completed to date	(Note 2)	(Note 2)	

<i><b>Note 2:</b> Sponsor is compiling costs/value to date.</i>				
<b>Contract Status:</b>		<b>Amount (\$)</b>	<b>Percent</b>	
<b>Total Contracts Awarded</b>	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded	(Note 2)	(Note 2)	
<b>Construction Contracts Awarded</b>	Value of construction contracts awarded; % of total construction value to be awarded	(Note 3)	(Note 3)	
<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>			<i>Next Monthly Meeting is on August 16, 2023.</i>	

\*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. In July 2023, TJPA removed the additional 7-EMU trainset from the Transbay DTX Phase 2 Program but added five non-revenue maintenance-of-way vehicles and the existing Salesforce Transit Center train box completed under the Transbay DTX Phase 1 Program. Refer to report Section 12.2 for details.

\*\*As of July 31, 2023. Final cost estimates and contingency will be reconciled with the adjusted SCC Workbook when the final adjustments arising from the FTA Risk Assessment are completed.

## **2.0 OBSERVATIONS AND FINDINGS**

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

*This report covers the period from July 1, 2023, through July 31, 2023.*

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 June 2023 and finalized report after FTA's review and the TJPA "fact check" review.*
- *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 90%, 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 July 11, 2023 and co-directed the meeting with the FTA.*
- *Attended FTA Monthly CIG check-in meeting on July 20, 2023.*
- *Attended project scope / revised OP40 input deliverables / timeline meeting (FTA/PMOC and TJPA) on July 24, 2023.*
- *Attended Sponsor program management and technical meetings:*
  - *Integrated Project Management Team semimonthly meetings (July 11, July 25, 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. Many of the PMOC's OP51 review activities in that effort overlap with the OP40 Risk and Contingency Review as well as 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 continues to finalize 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 has been reviewed by the PMOC in accordance with OP22, Safety and Security Management Plan Review, dated September 2015, for a project requesting Entry to Engineering. *The PMOC has prepared the initial draft OP20 Report and continues to finalize the report.* 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 completed its review of both documents in accordance with OP23, Real Estate Acquisition and Management Plan Review, dated September 2015, for a project requesting Entry to Engineering. *The review found the RAMP to be in partial compliance with OP23, with comments in the areas of acquisition and relocation processes, real estate team organization, document control, property management, and property disposition. Since the project is already engaged in real estate acquisition and relocation activities, TJPA was requested to revise and resubmit the RAMP as soon as possible, but no later than 45 calendar days.*

### **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 completing 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. 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 completed analysis 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). *Results have been drafted to share with the Sponsor and will be summarized in the separate OP51 report.*

### **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 was completed and results were provided to TJPA within the draft combined Scope, Cost, Schedule, Risk and Contingency Review report. *TJPA and the PMOC collaborated on the comments, especially to define the project's "contingency drawdown curves," and TJPA commenced a revision to the RCMP for resubmittal.*

## **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. The initial draft of the OP21 Report has been completed. *The PMOC completed the interviews with 10 key staff on the Transbay DTX project team including TJPA, the PMPC and GEC consultants as well as Caltrain. The PMOC is preparing the final draft OP21 Report for the Management Capacity and Capability Review.*

## **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 Train Box 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. Final FTA approval of the NEPA re-evaluation was received on June 9, 2023.

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. The initial draft OP32B Report has been completed and is being finalized.

## **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, and for 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 possible need for development of the basis for a Letter of No Prejudice (LONP) to qualify the costs of the Enabling Works Program for those elements not otherwise covered under pre-award authority in accordance with the FFGA. *However, as of July 31, 2023, there is no apparent need for a LONP based on the current project plan and schedule.*

## **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 and to support the PMOC's OP51 review of the project's readiness to enter the Engineering phase, the PMOC completed 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 have undergone the PMOC’s OP32C review. *The draft of the combined Scope, Cost, Schedule, Risk and Contingency Review report was distributed to both FTA and to the Sponsor in May 2023. Comments were received and reconciled; however, the final issue of the report was pending TJPA’s decision on whether the one 7-EMU trainset will remain within the scope of the project. TJPA announced on July 24, 2023, that it would not procure the trainset through the existing vehicle procurement option but would instead procure it through a planned future Caltrain procurement. Subsequently on July 31, TJPA informed FTA and the PMOC that it will not include the 7-EMU trainset in the Transbay DTX scope of work at all, but that the project scope was being expanded to include five non-revenue maintenance-of-way service vehicles, as well as the Salesforce Transit Center train box that had been completed previously under the Transbay DTX Phase 1 Program, and for which inclusion had been approved by FTA after a Headquarters review.*

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 as well as some wayside signal/train control equipment and associated cabling.* 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. *Based on the PMOC’s recommendation, TJPA and Caltrain will investigate relocation of any PCEP facilities not yet installed to avoid future conflict with planned DTX work.*

*July 2023 Sponsor updates included:*

- *Advance (Enabling) Works Program Status*
  - *Utility Relocation*
    - *60% Design plans and specifications and Draft Maintenance and Protection of Traffic (MPT) plan have been reviewed.*
    - *60% Design cost estimate is under review.*
    - *90 % Design has started.*
  - *DTX 4<sup>th</sup> and King Site Work Packages*
    - *Three standing TJPA weekly meetings with Caltrain, PMPC and GEC.*
    - *Site walk for Caltrain and GEC was held July 6, 2023.*
    - *The site survey requires two additional days.*

- *Building Demolition Package*
  - *30% Design has started.*

## **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 Draft Real Estate Acquisition and Management Plan (RAMP). Refer to the Project Management Plan and Subplans section of this report for the status of the RAMP.

*July 2023 Sponsor updates included:*

- Status of property acquisitions and easements
  - 11 total acquisitions for FY2023-2024, forecast to start in November 2023.
  - 3 properties in early stages: Phase 1 Environmental Site Assessments (ESA) completed.
  - Acquisition of 14 subsurface easements, the temporary construction easements and the seven rock-dowel easements is forecast to commence in the first half of FY2024-2025.
  - Approximately 28 potential displacees have been identified.
  - Relocation Impact Study has been paused to align with the anticipated schedule for availability for the associated funding.
  - The revised real estate Relocation Plan schedule milestones include:
    - Resume work on the Relocation Impact Study in September 2023.
    - Public comment period completed in October 2023.
    - TJPA Board consideration of study in November 2023.
    - TJPA stated that the revised schedule does not delay the original acquisition end date.
- Transbay DTX 4<sup>th</sup> and King Site Work:
  - 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 regarding the DTX scope of work; TJPA continues meetings with Caltrain utilizing focus groups for specific areas and reports that they are making progress in a number of areas.*
  - 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; Prologis has been briefed on 6<sup>th</sup> Street sewer re-route plans and met with Caltrain and TJPA on July 13, 2023; TJPA anticipates comments on the proposed sewer plans.*

- *DTX Underpinning Work on Three Existing Structures*
  - *Detailed review of noise and vibration impacts is required prior to work on the critical property at 235 2<sup>nd</sup> Street.*
    - *TJPA was granted access to the property.*
    - *Background noise and vibration readings were collected.*
    - *Remote noise and vibration simulation of the EMU vehicle was completed.*

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.

*July 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:
    - *Approved by full Board of Supervisors on June 27, 2023.*
    - *Resolution signed by Mayor; ICA being finalized for execution.*
    - *The first Technical Advisory Committee Meeting was held in July 2023.*
- Joint Trench Agreements
  - *TJPA continues to work on a single agreement for all 12 parties and will share the cost estimate.*
  - Draft Form A has been distributed and is under review.
  - Coordination with the 12 telecom companies continues in support of the utility relocation design progression and development.
  - *TJPA legal rights established under CCSF franchise agreements.*
- 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:
  - *The Draft Term Sheets are in various stages of completion. The earlier goal of completing all drafts by June 15, 2023, has not been met. Accordingly, the August 12, 2023, target date for final approval by TJPA and the Caltrain boards will not be met. Instead, both parties are working on completing an Interim Agreement by mid-August 2023 with Completion of the Final MCA targeted for October 2024.*
  - *Interim Agreement:*
    - *Separate Agreement – August 2023 to September 2024.*
    - *Defers work in Rail Yard.*
    - *Focus on Reimbursement Mechanics: Work Scope; Caltrain investments; Resource Scheduling.*
- , 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.
    - TJPA has opened a Phase 2 account under gas utilities to engage PG&E review of project submittals. The updated DTX power load flow analysis is in progress.

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. The PMOC notes that as of this date, one of the agreements, with the City and County of San Francisco is nearly completed, a significant achievement given the several City departments involved.
- 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 required fleet and operational changes that would be needed to support the new service, and the addendum 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 was 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. *However, at the end of July 2023, TJPA decided not to include the one trainset in the Transbay DTX Phase 2 Program, but Caltrain will continue with its plan to procure four (4) trainsets under the existing option (three diesel replacements and one spare) under a separately funded project.*

## **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.

*July 2023 Sponsor updates included:*

- **Program Funding Status**
  - Final Draft Joint TJPA/Caltrain 20-Year Financial Plan has been completed. Additional adjustments are in progress:
    - *Finalizing revised cost and cashflow based on Risk Review and project scope adjustments.*
    - *Updating Transportation Demand Model output*
    - *Updating Caltrain O&M plan based on number of trainsets.*
  - *TJPA is awaiting a response to the applications it submitted for a \$194 million Federal/State Partnership Grant and the \$60 million CRISI.*
  - TJPA has responded to all questions to date from the FMOC.
- **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 was \$6,987 million including finance cost.

- The Final Capital Cost Estimate was submitted to the FMOC on March 8, 2023.
- *In support of the OP40 Risk Workshop, TJPA submitted an updated SCC workbook inclusive of the one trainset, for \$96 million with contingency, which reflected a total project cost of \$7,091 million. PMOC notes that the trainset was subsequently deleted in July 2023 based on TJPA's final decision, and TJPA commenced preparing another updated SCC workbook for submittal by August 1, 2023, to reflect the final agreed scope.*
- *TJPA continues to work on the 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. Any adjustments will be reflected in the updated SCC workbook to be submitted August 1, 2023.*
- *Updated forecast of cost estimates updates for Enabling (Early Action) Works Program:*
  - *90% Utilities Relocation Design – November 2023*
  - *30% 4<sup>th</sup> and King Sitework Design – January 2024*
  - *30% Building Demolition Design – October 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 completed its review of the initially submitted 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 underwent the OP33 review. However, as noted above, in April 2023, the cost estimate for the risk assessment was modified to include vehicle costs, and yet another issue of the SCC workbook was provided at the end of the risk workshop to further refine vehicle costs, all of which were included in the PMOC's OP33 review. The results of this cost estimate review were detailed in a separate draft combined Scope, Cost, Schedule, risk and Contingency Review report issued under the PMOC's Project Programmatic Task Order. The draft combined Scope, Cost, Schedule, Risk and Contingency Review report was distributed to both FTA and to the Sponsor. Comments have been received and reconciled; however, the final issue of the report was held pending TJPA's decision on whether the one trainset will remain within the scope of the project. *TJPS's final decision to exclude the one 7-EMU trainset from the scope, but to include five non-revenue maintenance-of-way service vehicles and the train box that was completed under the Transbay DTX Phase I Program, was announced at the end of July 2023. The PMOC requested that an updated SCC Workbook be submitted both to undergo another OP33 review and to support the re-performance of the FTA/PMOC quantitative cost risk modeling under OP40.*

## **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.



*July 2023 Sponsor updates included:*

- *The June 2023 schedule update has been merged with the current Master Schedule with the risk schedule model, based on January 2023 schedule, and has a data date of May 31, 2023.*
  - *Advanced Utility Relocation work is now on the project critical path.*
  - *4<sup>th</sup> and King Site Work is now near critical with less than 15 WD float.*
- *Enabling (Early Action) Works Program schedule updates*
  - *Utilities Relocation – 90% Design started June 1, 2023*
  - *Building Demolition – 30% Design started July 10, 2023*

As part of the FTA/PMOC-led Risk Assessment to support the review of the project's readiness to enter the Engineering phase, the PMOC completed 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 results of this schedule review were detailed in a separate draft combined Scope, Cost, Schedule, Risk and Contingency Review report issued under the PMOC's Project Programmatic Task Order. The draft combined Scope, Cost, Schedule, Risk and Contingency Review report was distributed to both FTA and to the Sponsor. *Comments have been received and reconciled; however, the final issue of the report has been pending TJPA's decision on whether the one trainset will remain within the scope of the project. The PMOC notes that TJPA's final decision to delete the additional trainset was announced on July 28, 2023. The project schedule was to be revised once again by TJPA to reflect the final agreed scope of the project and resubmitted on August 1, 2023. The results of the PMOC's review of this revised schedule will be reported in a revised Scope, Cost, Schedule Risk and Contingency Review report.*

## **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 recorded on the post-PMOC Risk Assessment Risk Register are presented in Attachment C of this report. However, it should be noted that the risks are subject to review based on the revised project scope announced on July 24 through July 31, 2023.*

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 completed its 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 was 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.

Prior to the risk workshop, 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.

Also, under the PMOC's Project Programmatic Task Order, a hybrid Risk Workshop was then 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.

The workshop concluded with a list of open items with committed submittal dates, which were met by TJPA. Subsequent to the completion of the risk workshop, TJPA committed to providing a final decision to the FTA by June 30, 2023, regarding the addition of a single trainset of 7 rail vehicles in the scope of the Transbay DTX Project.

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 consolidated the results and delivered them to the FTA on May 22, 2023, and they were then shared with TJPA on May 30, 2023. After FTA's review, the draft combined Scope, Cost, Schedule, Risk and Contingency Review Report was provided to TJPA on June 15, 2023, followed by a TJPA/FTA/PMOC meeting on the report content on June 22, 2023. *However, finalization of the report was held, pending TJPA's planned decision by June 30, 2023, on whether to include the one 7-EMU trainset in the scope of the project. As reported earlier, the decision to exclude the trainset, but to include non-revenue vehicles and the train box that was completed under the Transbay DTX Phase 1 Program, was announced at the end of July 2023. As a result, the PMOC requested that updated scope descriptions, SCC Workbook, and project schedule reflecting the final agreed scope be submitted to FTA/PMOC, both to undergo further OP23B, OP33, and OP34 reviews and to support the re-performance of the FTA/PMOC quantitative cost and schedule risk modeling under OP40. TJPA committed to provide the updated information by August 1, 2023.*

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

The Sponsor has completed preparing the Project Quality Assurance Plan, and *the PMOC has completed its OP24 review. Refer to the Project Management Plan and Subplans section of this report for the status of the QAP.*

## **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, *and the PMOC completed its review. Refer to the Project Management Plan and Subplans section of this report for the status of the SSMP.*

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

The PMOC has reviewed 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 has reviewed 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 oversight services on the Transbay Downtown Rail Extension Project, Phase 2.

## 2.23 Actions Items Table

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status / Action Required
1.	Confirm inclusion of one 7-vehicle trainset in project scope of work.	TJPA	April 2023	June 30, 2023	July 31, 2023	Awaiting final TJPA, Caltrain decision
2.	<i>Updated scope descriptions, SCC Workbook, and project schedule reflecting the final agreed scope</i>	<i>TJPA</i>	<i>July 24, 2023</i>	<i>Aug. 1, 2023</i>		<i>Open</i>

### **3.0 PROJECT MONITORING REPORT ATTACHMENTS**

- A. List of Acronyms
- B. Safety and Security Checklist – In preparation by the Sponsor.
- C. Top Project Risks
- 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 a subsequent Monthly Report based on the risk-informed 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

## **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
CMGC	-	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 their associated unmitigated risk scores as recorded in the Post PMOC Risk Assessment:

<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
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
148	Relocating locker room may have union issue if distance is increased. There is uncertainty as to what facilities need to be moved and where	20
45	Addition of floating slab to minimize operating train noise and vibration	16
3	Premium for work adjacent to operating tracks	16

*Risk Score/Rank*

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

