

BART SILICON VALLEY PHASE II EXTENSION PROJECT
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
CITIES OF SAN JOSÉ AND SANTA CLARA, CA

FTA Region IX

Status as of February 29, 2024

PROJECT MONITORING REPORT

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1. Executive Summary

A. Project Description

Bay Area Rapid Transit (BART) Silicon Valley Phase II (BSVII) is an approximately 6.0-mile extension of the BART system from the existing terminus at the Berryessa / North San José BART Station through downtown San José to the proposed Santa Clara Station in the City of Santa Clara. BSVII includes a total of four stations: three below-grade (28th Street / Little Portugal Station, Downtown San José Station, and Diridon Station) and one at grade (Santa Clara Station). BSVII also includes two parking garages, and the Newhall storage Yard and Maintenance Facility (NYMF). Forty-eight vehicles will be paid for with project funds but are included in the procurement for BART Federal Transit Administration (FTA) Core Capacity grant program fleet upgrades. The project is being designed and constructed by Santa Clara Valley Transportation Authority (VTA), will be owned by VTA, and operated and maintained by BART. Service is planned to operate in the opening year from 4:00 AM to 1:00 AM on weekdays and from 6:00 AM to 1:00 AM on weekends, with trains every 7.5 minutes during the weekday peak period, every 7.5-15 minutes off-peak during the weekday, and every 20 minutes on evenings and weekends.

B. Project Status

BSVII is in the New Starts Project Development phase. The project's new baseline cost and schedule estimates for a New Starts Entry to Engineering review and risk assessment were submitted to FTA/PMOC on October 11, 2023. The project new baseline cost and schedule estimates are total project cost of \$12.237B and Revenue Service Date in October of 2036.

FTA issued a Record of Decision (ROD) to the BSVII project in June 2018. BSVII was selected for advancement under the Expedited Project Delivery (EPD) Pilot Program on September 21, 2021. In October 2022, VTA submitted a letter to FTA requesting the BSVII project be allowed to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program and seeking a Letter of No Prejudice (LONP). On December 1, 2022, FTA agreed to move the project from the (EPD) Pilot Program back into the Project Development phase as a New Starts project. FTA also approved a LONP covering expenses VTA incurred when it started in New Starts Project Development in March 2016, through the Project's migration to the EPD Pilot Program, as well as for all remaining work on the project, thereby matching the pre-award authority VTA had been given while it was in the EPD Pilot Program for the New Starts Basis total project cost of \$9.318 billion.

The project implementation plan had previously been that BSVII would be delivered through four major design-build construction contract packages: Systems Construction Package 1 (CP1); Tunnel and Trackwork Construction Package 2 (CP2); Newhall Yard and Maintenance Facility and Santa Clara Station Construction Package 3 (CP3); and Underground Stations Construction Package 4 (CP4).

CP2 has progressed based on its original procurement. The VTA Board of Directors approved the award of the CP2 Progressive Design Build contract on May 5, 2022. CP2 Limited Notice to Proceed (LNTP) for a 90-day innovations phase was issued on June 9, 2022; NTP1 was issued

for Programming Services on September 7, 2022; and NTP1A was issued for Stage 1 Design Professional Services on February 21, 2023. Early Works Packages are progressing through design, pricing, and negotiations to support the launch of the Tunnel Boring Machine (TBM) that was ordered on October 31, 2023.

All major packages other than CP2 were re-evaluated and subject of a Peer Review in November 2022. Since then, VTA has selected Design-Bid-Build delivery for all work previously identified as CP1 – Systems, CP3 – Newhall Yard, Santa Clara Station and Parking Garage, and CP4 – Underground Stations.

VTA is in the process of determining how this remaining construction work will be packaged for bids. Then it can be communicated to the PMOC and incorporated into the project management documents.

C. Major Issues and/or Concerns

The December 2022 schedule was updated to reflect the New Starts Basis and monthly updates were generated through April 2023. The April 2023 schedule update moved the Revenue Service Date (RSD) out from July 29, 2033, to February 22, 2034. This further extends the schedule delay beyond VTA’s New Starts Basis RSD of March 2033. The Project Management Oversight Contractor (PMOC) remains concerned that much of that extension is due to delays experienced in early activities. Further delays are occurring while some activities have slowed while the new baseline was developed, and value engineering has been underway.

PMOC has long been concerned that until VTA reconfigured its contract implementation planning and incorporated those changes into updated schedule, cost, and risk assessment for the program, the project estimate is under-representing the total cost due in part to contingency, inflation, and an optimistic base schedule and risk profile. VTA’s latest cost and schedule and risk and contingency management plan reflect a substantial increase in the project cost and extension of the project schedule. VTA’s new baseline documents are under review by PMOC in coordination with the risk workshop and assessment.

PMOC is concerned that a key VTA BSVII position (Construction Director) is currently vacant and that VTA may have difficulties filling this key position with qualified transit individuals due to the high demand for transit professionals in the U.S. and especially in the California market.

Due to frequent turnover and vacancies in key BSVII positions, PMOC is concerned about the lack of succession planning and inadequate transition periods in dealing with attrition and turnover.

PMOC is concerned about some differences in BART and VTA understanding of BART staff roles and authority in the review and approval process during various phases of project implementation (Engineering, Construction, Testing and Start-up).

PMOC is concerned that the Program Management Services Contract is set to expire on October 31, 2024 and there has been no reported action plan describing the next steps for maintaining program management services.

D. Table 1 Core Accountability Items

| | | Original (Grant) | FTA Current P65 Forecast (EPD Letter of Intent) | VTA New Starts Basis (Sept 2022) ⁷ | PMOC Assessment of Current Forecast ⁷ |
|--|---|--------------------|---|---|--|
| Cost | Capital Cost Estimate ¹ | N/A | \$9.148B | \$9.318B | No change from LOI. Pending VTA project delivery re-packaging, new baseline, and risk refresh. |
| Contingency | Unallocated Contingency | N/A | | \$875M ² | |
| | Allocated Contingency | N/A | | \$854M ² | |
| | Total Contingency | N/A | \$2.653B ³ | \$1.729B ² | |
| Schedule | Revenue Service Date | N/A | June 21, 2034 ⁵ | March 1, 2033 ⁴ | |
| Project Progress | | | Amount (\$M) | Percent of Total | |
| Total Expenditures | Actual cost of all eligible expenditures completed to date ⁶ | | \$870.4 | 9.3% | |
| Planned Value to Date | Estimated value of work planned to date | | N/A | N/A | |
| Actual Value to Date | Actual value of work completed to date | | N/A | N/A | |
| Contract Status | | | Amount (\$) | Percent | |
| Total Contracts Awarded | Value of all contracts (design, support, construction, equipment) awarded: % of total value to be awarded | | \$1,181 | N/A | |
| Construction Contracts Awarded | Value of construction contracts awarded: % of total construction value to be awarded | | 0 | 0 | |
| Physical Construction Completed | Value of physical construction (infrastructure) completed: % of total construction value completed | | 0 | 0 | |
| Rolling Stock Vehicle Status | Date Awarded | No. Ordered | No. Delivered | | |
| Heavy Rail Vehicles | N/A | 48 (planned) | 0 | | |

¹ FTA P65 Capital Costs include a sum of Year of Expenditure (YOE) \$389.72M in finance costs based on the EPD submission, whereas VTA New Starts Basis includes YOE \$564.95M in finance costs.

² Contingency amounts are base year dollars taken from VTA's New Starts Basis SCC Cost Estimate (September 2022).

³ PMOC P65 risk on Stripped and Adjusted Base Cost of \$6.495B at EPD risk assessment.

⁴ VTA's New Starts Basis RSD was not supported with a detailed schedule submission, and the project preliminary baseline has yet to be adopted and is *subject to change as a result of PMOC/FTA risk assessment currently being completed to support VTA's request to enter Engineering.*

⁵ Based upon recommended 125% of remaining duration of critical path as of PMOC risk assessment conducted May 2021 (PMOC P65 RSD was February 2, 2034). *Per note 7 below, updates to VTA's baseline cost and schedule are subject to change based on the FTA/PMOC risk assessment currently being completed to support VTA's request to enter Engineering.*

⁶ Includes standard cost categories (SCC) 10, 40, 60 and 80 expenditures in Project Development, reported through January 31, 2024, based on accruals. Percentage calculated based on New Starts Basis Total \$9.318B.

⁷ The BSVII team has prepared new baseline documents for Entry to Engineering which are currently under review and revision.

2. PMOC Observations and Findings

A. Summary of Monitoring Activities

The PMOC oversight commenced in July 2020. PMOC has since received numerous documents and coordinated with VTA via email and telephone conversations. *This report covers project status and documents received through February 29, 2024 (and including the January 2024 monthly progress reporting received March 1, 2024). The monthly PMOC oversight call was conducted on March 14, 2024, discussion at which covered those documents received in February 2024.*

VTA submitted their Expedited Project Delivery (EPD) Pilot Program application on April 7, 2021, and FTA/PMOC Risk Workshops were held on May 10-12, 2021. FTA selected the Bay Area Rapid Transit (BART) Silicon Valley Phase II (BSVII) project to advance in the EPD Pilot Program in September 2021 and on October 25, 2021, FTA issued a Letter of Intent (LOI) to obligate funds for BSVII contingent upon VTA meeting specified conditions by October 25, 2023.

In October 2022, VTA submitted a letter to FTA requesting the BSVII project be allowed to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program and seeking a Letter of No Prejudice (LONP). On December 1, 2022, FTA agreed to move the project from the (EPD) Pilot Program back into the Project Development phase as a New Starts project. FTA also approved a LONP allowing the extension of pre-award authority to the activities that are not allowed under Project Development phase of the New Starts (NS) CIG program, activities such as long lead procurement and construction.

In October 2022, VTA also presented FTA with a roadmap of activities and milestones assuming they progress to a Full Funding Grant Agreement (FFGA) in the CIG Program. FTA will continue to work with VTA regarding the roadmap and anticipated time limits for the various milestones and activities with initial focus on the roadmap to Entry to Engineering.

VTA staff presented the BSVII cost and schedule new baselines to the VTA Board of Directors on October 5, 2023, as an Information Item. On October 20, 2023, VTA staff and VTA Board of Directors held a workshop and discussed the BSVII Cost and Schedule new baselines. VTA transmitted to FTA/PMOC on October 11, 2023, these new baseline cost and schedule estimates including a total project budget of \$12.237B and Revenue Service Date (RSD) in October of 2036.

FTA/PMOC held a Risk Workshop with VTA on January 16-18, 2024. Preliminary risk review results advised an increase in costs to \$12.754B and a recommended RSD of February 2039 based on the use of 125% of the remaining critical path Stripped and Adjusted Base Schedule (SABS) duration.

B. Project Management Plan (PMP) and Sub-Plans

The following PMP and Sub-Plan documents include documents that were reviewed by the PMOC for BSVII program EPD readiness:

| Document Title | Revision | |
|---|----------|--------------------|
| | No. | Dated |
| Project Management Plan (PMP) | 0.C | April 9, 2021 |
| Management Capacity and Capability Plan (MCCP) | 0.E | April 16, 2021 |
| Risk and Contingency Management Plan (RCMP) | 0.C | April 16, 2021 |
| Quality Management Plan (QMP) | 0.D | April 19, 2021 |
| Real Estate Acquisition Management Plan (RAMP) | 0.B | September 30, 2020 |
| Safety and Security Management Plan (SSMP) | 0.B | April 20, 2021 |
| BART Rail Fleet Management Plan (RFMP) FY2020 to FY2036 | D | September 2019 |
| Third Party Agreement Management Plan | 0.C | April 18, 2021 |
| Project Delivery and Procurement Plan | 0.F | April 16, 2021 |
| Project Implementation Plan | C | September 30, 2020 |

On December 1, 2022, FTA agreed to allow the BSVII program to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program. Around the same time as the change in federal funding source and the update of the project budget, VTA also re-evaluated the project delivery scheme. Looking ahead to the New Starts Entry to Engineering request, VTA submitted 39 documents on May 26, 2023, including the following updates to the PMP and sub-Plans to FTA to be reviewed by the PMOC:

| Document Title | Revision | |
|---|----------|---------------|
| | No. | Dated |
| Project Management Plan (PMP) | 1 | May 1, 2023 |
| Management Capacity and Capability Plan (MCCP) | 1.A | May 1, 2023 |
| Risk and Contingency Management Plan (RCMP) | 0.D | May 22, 2023 |
| Quality Management Plan (QMP) | 2 | May 1, 2023 |
| Real Estate Acquisition Management Plan (RAMP) | 0.C | May 1, 2023 |
| Safety and Security Management Plan (SSMP) | 0.C | May 1, 2023 |
| BART Rail Fleet Management Plan (RFMP) FY2020 to FY2034 | F | February 2023 |
| Third Party Agreement Management Plan | 1 | May 1, 2023 |
| Project Delivery and Procurement Plan | 0.G | May 1, 2023 |

| Document Title | Revision | |
|-------------------------------|----------|------------|
| | No. | Dated |
| VTA Bus Fleet Management Plan | 1 | May 2023 |
| VTA LRT Fleet Management Plan | 1 | April 2023 |

PMOC recommendations and comments from the EPD readiness review as related to OP20, OP22, OP23, and OP24 were provided to VTA informally to help VTA prepare for the submissions needed for Entry to Engineering readiness. PMOC conducted an initial review of the new submissions in support of the Entry to Engineering risk assessment and readiness review and provided preliminary summary comments regarding inconsistencies and incomplete elements to VTA on June 27, 2023.

VTA submitted 37 documents in November 2023 and 11 additional documents in December 2023, including the following updates to the PMP sub-Plans to FTA:

| Document Title | Revision | |
|--|----------|-------------------|
| | No. | Dated |
| Project Management Plan (PMP) | 2 | December 15, 2023 |
| Management Capacity and Capability Plan (MCCP) | 2 | December 15, 2023 |
| Safety and Security Management Plan (SSMP) | 0.D | December 8, 2023 |
| Real Estate Acquisition Management Plan (RAMP) | 0.C | December 8, 2023 |
| Quality Management Plan (QMP) | 2 | November 1, 2023 |
| VTA 2023 Bus Fleet Management Plan (BFMP) | 1.0 | November 2023 |
| Third-Party Agreement Management Plan (TAMP) | 1.0 | November 1, 2023 |
| Project Delivery and Procurement Plan | 0.G | November 1, 2023 |

PMOC reviewed the new submissions from November 2023 and December 2023 and provided input to PMOC's risk assessment and Oversight Procedure (OP) 51 Readiness to Enter Engineering review. PMOC's OP 51 report will be one input to FTA's determination regarding Santa Clara Valley Transportation Authority's (VTA's) Capital Investment Grants (CIG) Program application.

C. Management Capacity and Capability

Refer to Section B above for revision and submittal status of the Management Capacity and Capability Plan (MCCP) and other PMP Subplans to support VTA's New Starts request to enter Engineering.

VTA has several professional services contracts awarded by which consultants have been supporting VTA in the project development phase. VTA consultants are managed under the

HNTB/WSP joint venture Project Management Team (PMT) and the MM/W joint venture General Engineering Consultant (GEC). The PMT and the GEC include professional resources providing program management and multiple specialized engineering services.

At the February 08, 2024, monthly meeting, VTA presented an updated VTA's BART Silicon Valley Phase II Extension Program Organization reflecting the following updates:

- The BSVII Safety and Security Lead reporting to VTA General Manager/CEO.
- The BSVII Quality Manager reporting to VTA General Manager/CEO.
- The VTA Program Director who will oversee the consultant Program Manager remains vacant.
- The VTA Construction Director who will oversee all BSVII construction management activities including the Construction Manager assigned to each construction contract remains vacant.
- BART agency staff added showing BSVII coordination among BART and VTA.
- The Rail Systems Organization (RSO) that includes BART staff, VTA staff and VTA consultants was added with direct coordination with the General Engineering Services (GEC).

At the March 14, 2024, monthly meeting, VTA provided these further updates:

- *VTA indicated they are actively recruiting for the VTA Construction Director position and that they made an employment offer to a candidate for the VTA Program Director position.*
- *VTA completed negotiations with the selected Construction Management services firm and will seek authorization from the Board of Directors on April 4, 2024, to authorize the General Manager/CEO to execute a contract with the selected firm.*

D. National Environmental Policy Act (NEPA) Process and Environmental Mitigation

FTA signed the BSVII Record of Decision (ROD) in June 2018. BSVII project staff has converted the Mitigation Monitoring and Reporting Program (MMRP) from the ROD into a new format for tracking that is called the Environmental Commitments Record (ECR). Applicable environmental mitigation requirements were integrated into each of the contract packages via the ECR and the Design Requirements and Best Management Practices matrix. A NEPA re-evaluation was completed, submitted to FTA, and approved by FTA HQ in March 2021 in support of the requirements associated with VTA's EPD selection. On December 1, 2022, FTA agreed to allow the BSVII program to re-enter the New Starts Project Development phase of the Capital Investment Grants (CIG) program.

Coordination between VTA and FTA is ongoing as VTA continues to conduct technical analysis required to re-evaluate NEPA in support of the requirements associated with New Starts and recent changes to the project.

At the March 14, 2024, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:

- Ongoing review of KST Submittals to ensure consistency with Environmental Requirements
-
- Coordinating with KST re: Archaeological Testing Program
- Finalizing the NEPA/CEQA document and associated technical reports.

E. Project Delivery Method and Procurement

VTA’s plan for project delivery has evolved over recent years. VTA developed a Project Delivery and Procurement Plan (Revision 0.F dated April 16, 2021) which referenced the Project Implementation Plan. Those documents reflected the BSVII project baseline contracting plan which consisted of four distinct Design-Build contract packages for Systems (CP1), Tunnel and Trackwork (CP2), Santa Clara Station/Newhall Yard (CP3), and Underground Stations (CP4).

| Package Number | Construction Contract Package Name | 2022 Delivery Method |
|-----------------------|--|-----------------------------|
| CP1 | Systems | Design Build |
| CP2 | Tunnel and Trackwork | Progressive Design Build |
| CP3 | Newhall Yard, Santa Clara Station and Parking Garage | Design Build |
| CP4 | Underground Stations | Design Build |

VTA determined in early 2023 that Design Bid Build will be used to procure the Systems and Facilities construction that is not completed by the Progressive Design Builder for CP2. VTA has yet to determine, and communicate, the contract packaging scheme for all scope other than CP2 and the Diridon Temporary Parking. This remaining scope is sometimes still referred to as CP1, CP3, and CP4 as identified above, but more generically described as Systems and Facilities. In the below table, the decision to procure the Systems and Facilities construction via Design Bid Build is documented.

| Construction Contract Package Name | 2023 Delivery Method |
|---|-----------------------------|
| Systems (formerly CP1) | Design Bid Build |
| Tunnel and Trackwork (CP2) | Progressive Design Build |
| Facilities (formerly CP3 and CP4) | Design Bid Build |

Between fall 2020 and 2022, VTA initiated a three-step procurement process for the BSVII contract packages, including Requests for Industry Feedback (RFIF), Requests for Qualifications

(RFQ), and Requests for Proposals (RFP). Historic data documenting dates for select procurement activities are reported in the following table for the four contract packages included in baseline contracting plan.

| Milestones | | Contract Packages | | | |
|----------------------------|--------------|-------------------------------|----------|-------------------------------|-----------------------------|
| | | CP1 | CP2 | CP3 | CP4 |
| Request for Qualifications | RFQ Release | 2/26/21 | 12/29/20 | 9/13/21 | 6/29/21 |
| | SOQ Response | 5/18/21 | 3/19/21 | 11/30/21 | 9/23/21 |
| | Shortlist | 6/30/21 | 5/11/21 | 2/3/22 | RFQ was cancelled 3/1/2022. |
| Request for Proposals | Pre-Final | 4/15/22 | 7/19/21 | 5/20/22 | |
| | Final | RFP was cancelled 12/31/2022. | 9/24/21 | RFP was cancelled 12/31/2022. | |
| | RFP Response | | 12/10/21 | | |

Requests For Qualifications were issued for all 4 packages. The RFQ of CP4 (Stations) was cancelled on March 1, 2022. The Statements of Qualifications (SOQs) for CP1 (Systems), CP2 (Tunnel and Trackwork), and CP3 (Newhall Yard and Santa Clara Station) were evaluated and resulted in the following:

- CP1 (Systems) – 2 Prime contractors being shortlisted.
- CP2 (Tunnel and Trackwork) – 3 Prime contractors being shortlisted.
- CP3 (Newhall Yard and Santa Clara Station) – 3 Prime contractors being shortlisted.

The Final Tunnel and Trackwork (CP2) RFP was released on September 24, 2021, with the final addendum to this RFP released November 24, 2021. BART Silicon Valley Phase II Tunnel Partners (B2TP) and Kiewit Shea Traylor (KST) Joint Venture submitted proposals on December 10, 2021. VTA completed negotiations with the highest ranked team and issued a Notice of Recommended Award to KST. The Contract award was approved by the VTA Board of Directors on May 5, 2022. Limited Notice to Proceed (NTP) was issued June 9, 2022, NTP1 was issued for Programming Services on September 7, 2022, and subsequently increased the lump sum not to exceed with Letter #12, dated November 10, 2022, authorizing KST to proceed with Early Works Packages design and estimating. VTA issued KST NTP1A for Stage 1 Design Professional Services on February 21, 2023. Amendment #1, valued at \$144M was executed in October 2023 for the Tunnel Boring Machine Purchase Order.

In November 2022, VTA held the Contract Packaging and Delivery Peer Review to receive feedback on the delivery approaches to be used for all contract packages other than CP2 (Tunnel and Trackwork). The RFPs for CP1 (Systems) and CP3 (Newhall Yard and Santa Clara Station) were cancelled on December 31, 2022, pending reevaluation of contract packaging and delivery

methods.

On March 2, 2023, VTA transmitted to FTA and the PMOC the “Contract Packaging and Project Delivery Draft Report” dated February 28, 2023. Taking the Contract Packaging and Project Delivery Peer Review panel feedback into account, VTA concluded that Design-Build (DB) was not the preferred approach for the remaining contracts other than CP2. Since then, VTA has selected Design-Bid-Build delivery for all work previously identified as CP1, CP3 and CP4, and now described as Systems and Facilities.

The Construction Management Services RFP was released on September 25, 2023, with a schedule for the final addendum to be issued October 24, 2023, and proposals due on November 15, 2023. The scope of the CM Services contract is the entire construction program. *At the March 14, 2024, monthly meeting VTA reported that they were completing negotiations with the selected bidder and would seek authorization from the Board on April 4, 2024, to authorize the General Manager/CEO to execute a contract with the selected firm.*

F. Design

VTA has been progressing designs and reassessing the division of scopes of work for all major packages other than CP2.

CP2 Tunnel and Trackwork – *At the March 14, 2024, monthly meeting, VTA noted the following progress:*

- *Ongoing design optimization process to evaluate possible savings.*
- *Advance Partial Design Units (APDU):*
 - *APDU 2 Pre-Cast tunnel liner 100% Design – VTA review in Progress.*
 - *APDU 3C - West Portal TBM launch structure SOE (Support of Excavation) and 3E ground improvement design - 100% Design – VTA review in Progress.*
 - *APDU 3D – West Portal Caterpillar SOE Final Design – 100% Design – VTA review in Progress.*
 - *APDU 5A - DTSJ Chase building demolition, civil & Maintenance of Traffic (MOT) packages – 100% Design – VTA review in Progress.*
 - *APDU 8B – East Portal Enabling Works – 85% Design – VTA Over the Shoulder (OTS) review in Progress.*
 - *APDU 11B – West portal Temporary Power High Voltage Sub-station 85% Design - Expected March 2024.*
 - *APDU 12A – Diridon Station Enabling Works and Utilities 100% Design - VTA review in Progress.*
 - *APDU 14 – 28th Street Station Enabling Works 100% Design - Resubmittal expected March 2024.*
 - *APDU 20 – Track and Tunnel Alignment 100% Design – Comment resolution with BART.*
- *7 of 8 total 60% design units received to-date:*
 - *D10 – Bored Tunnel Design – Basis of Design complete. 60% Design – comment resolution complete.*

- *D15 – Tunnel Internal Structures - Basis of Design complete. 60% Design – comment resolution complete.*
- *D20 – Track and Tunnel - Basis of Design complete. 60% Design – comment resolution in progress.*
- *D25 – Diridon Station Design – Basis of Design complete. 60% Design – comment resolution complete.*
- *D45 – West Portal Design – Basis of Design complete. 60% Design – comment resolution complete.*
- *D30 – Downtown San José Station - Basis of Design complete. 60% Design – Expected June 2024.*
- *D35 – 28th Street / Little Portugal Station - 60% Design – VTA Review complete.*
- *D40 – East Portal Design - 60% Design – VTA Review complete.*

Program-wide, Facilities and Systems Engineering – *At the March 14, 2024, monthly meeting, VTA noted the following progress:*

- *Design Status and advancing to FFGA submission.*

| <i>CP1</i> | <i>CP3</i> | <i>CP4</i> |
|---------------|---------------|---------------|
| <i>Design</i> | <i>Design</i> | <i>Design</i> |
| <i>46%</i> | <i>41%</i> | <i>45%</i> |

- *Technical assurance / design reviews continue with KST submittals in support of the CP2 Management Team*
- *Continue the collaborative development of interface design requirements definition (KST & GEC)*
- *Supporting BART engagement by participating in technical working groups*
- *Implementing changes to the technical requirements within the BSVII Program DCM*

Due to the cancellation of procurements for CP1, CP3, and CP4 and potential re-packaging of scope, the completion status for the RFP volumes is on hold and was not included in VTA’s reporting for this period. Percent complete and RFP volume status reporting will resume as appropriate after the procurement strategy and timeline is finalized and documented in the Contract Implementation Plan.

G. Value Engineering and Constructability Reviews

VTA conducted a Value Engineering (VE) workshop in early 2020 based upon the 10% design (submitted December 2019) which consisted of the 55-foot diameter single bore running tunnel with center platforms. The VE workshop was facilitated by a third-party consultant and the resulting report remains in draft status. The workshop was “a shortened version of a formal Value Engineering Study” required by FTA for Capital Investment Grants (CIG) projects. However, several of the recommended VE elements were applicable and incorporated into the EPD configuration. Stage 1 initial innovations vetting, as well as iterative design and cost

estimating exercises, will accomplish further value engineering under the CP2 PDB procurement.

The DRAFT Constructability Review Report was written in August 2020 addressing biddability and buildability of the EPD configuration.

VTA conducted a peer review September 22, 23, and 25, 2020. VTA established action items to implement based on the peer recommendations and is tracking the implementation of those action items in their risk register.

A three-day facilitated Value Engineering (VE) workshop was held the week of June 19, 2023, and the Value Engineering Workshop Report was submitted to FTA/PMOC, documenting VE efforts from June 2023 through September 2023.

Constructability reviews were held on July 20 and 21, 2023. and the Draft Constructability Review Report was submitted to FTA/PMOC in December 2023.

H. Real Estate Acquisition and Relocation

Refer to Section B above for revision and submittal status of the Real Estate Acquisition Management Plan (RAMP) and other PMP Subplans to support VTA's New Starts request to enter Engineering.

VTA's implementation of the acquisition program is in progress. VTA has identified 75 total parcels with acquisitions needed, including full and partial acquisitions, subsurface tunnel easements, temporary construction easements (construction staging areas), and permanent easements. *During the March 14, 2024, monthly meeting VTA presented a high-level summary, as of January 2024, of the Real Estate Acquisition / Relocation Status per the following Real Estate Summary Table:*

| PROJECT ACQUISITION STATUS | | | | | | | | | | | |
|--------------------------------------|-------|---------------------|------------------------|--|-----------------------|-------------|-----------------------------|---------------------------|--------------------------|-----------------|-----------|
| Description | Total | Possession Obtained | In Acquisition Process | Status of "Parcels in Acquisition Process" | | | | | | Relocation **** | |
| | | | | Eminent Domain Actions Filed *** | Board Adoption of RON | Offers Made | Appraisal Process Completed | Legals and Plats Approved | Pending Legals and Plats | Required | Completed |
| SUMMARY OF REQUIRED TAKES | | | | | | | | | | | |
| Total Parcels: 75 * | 75 | 25 | 50 | 17 | 7 | 10 | | 1 | 15 | 37 | 10 |
| Type of Take: Quantity | | | | | | | | | | | |
| BPE ** & Other Takes: | 5 | | 5 | 1 | | 2 | | | 2 | 3 | |
| Full Fee: | 8 | 6 | 2 | 2 | | | | | | 15 | 10 |
| Other Multiple Takes (Easement/Fee): | 4 | | 4 | 1 | | | | | 3 | 15 | |
| Tunnel Easement: | 44 | 19 | 25 | 13 | 6 | 2 | | 1 | 3 | | |
| Roadway Easement: | 3 | | 3 | | | | | | 3 | | |
| Utility Easement: | 4 | | 4 | | | | | | 4 | | |
| Temporary Construction Easement: | 7 | | 7 | | 1 | 6 | | | | 4 | |

- * Six Building Protective Easements were removed due to elimination of DTSJ Secondary HH; pending Property Protection Study report
- ** BPE: Building Protective Easements – Parcels have additional acquisitions, such as Tieback Easement
- *** Total includes two parcels removed from the elimination of DTSJ Secondary HH
- **** Represents total tenants not parcels

During the March 14, 2024, monthly meeting VTA reported the following progress as of February 2024 (75 active parcels):

- o *Legal/Plats Approved: 80%*
- o *Appraisals Completed: 79%*
- o *Offers made: 79%*
- o *Purchase Agreements Signed: 33%*

No update was provided regarding the sixteen additional parcels pending legals and plats that are not considered “active” parcels in the acquisition process during the March 14, 2024, meeting:

- o *Seven private parcels near Santa Clara Station/Newhall Yard (associated owners and negotiations)*
- o *Two private parcels at the East Portal*
- o *Two private tunnel easements*
- o *Five public agency-owned parcels.*

I. Public Involvement/Outreach/Communications

At the March 14, 2024, monthly meeting, VTA provided the following Public Involvement/Outreach/Communications updates:

- ***Public and Stakeholder Meetings and Presentations***
 - o *February 29 – Pizza and Policy and Ask VTA BART Phase II Overview*
 - o *March 4 - Small Business Task Force*
 - o *March 11 – Chamber Presentation*
 - o *April 17 – July 19 – Design Review Committee Meetings for three other stations*

- *May – Public meetings for CTMP 2*
- **Communications and Public Relations**
 - *TBM Naming Contest*
 - *NTP for Early Works Blog*
- **West Portal Groundbreaking June 2024 Events**
 - *Alum Rock Business Mixer 2/21, Transit Day at Meta 2/27, Paratransit Open House 2/29*

J. Third-Party Agreements and Utilities

Refer to Section B above for revision and submittal status of the Third-Party Agreement Management Plan and other PMP Subplans to support VTA’s New Starts request to enter Engineering.

The Third-Party agreement tracking matrix is updated and submitted to the FTA/PMOC monthly. The third-party agreement tracking matrix provides detailed information including a listing of all the critical and non-critical agreements and permits, and their anticipated or actual execution dates. Per OP39, “critical third-party agreements are required before Construction, or Operations can begin, the absence of which may significantly change the cost, scope, and schedule.”

At the March 14, 2024, monthly meeting, VTA provided the following Third-Party Agreements updates:

- *The total number of Third-Party Agreements is reduced from 44 to 42 (two of San José Water Company relocation Notice to Owner at 13th St. And Stockton Avenue, are no longer required due to elimination of the Mid Tunnel Facility)*
- *Critical Agreements prior to FFGA: 26*
 - *25 Executed, and 1 Open*
- *The open critical agreement, UPRR Final Engineering Cost Reimbursement Agreement for CP2 Work, is anticipated to be executed by June 2024)*
- *Critical Agreements post FFGA: 6 (mainly Operations & Maintenance agreements, not started)*

As noted in previous reports, VTA is pursuing a re-use strategy for the tunnel spoils that will require environmental clearance (by a lead agency other than FTA) and permits prior to implementation of that sustainability solution. The latest Third-Party Agreement tracking log has a separate tab that identifies associated permits needed for the re-use of the tunnel spoils at the South San Francisco Salt Pond. This is regardless of the funding source for the environmental clearance and with the understanding that if not obtained (either by BSVII or others), the contractor will use alternative disposal.

Summary of Planned Utility Relocations

| Utility Type | Planned Relocations ¹ |
|--------------------------|----------------------------------|
| Communications | 30 |
| Electrical | 9 |
| Gas | 6 |
| Sanitary Sewer | 6 |
| Storm Drain | 7 |
| Water | 7 |
| Total Relocations | 65 |

¹ Utilities to be protected in place are not included in this summary.

Summary of Utility Relocation Design and Construction Progress

| LOCATION | RELOCATIONS DESIGN | RELOCATIONS IN CONSTRUCTION |
|---|--------------------|-----------------------------|
| OWNER LED RELOCATIONS | | |
| West Portal / NHY / SCS | 7 | 3 |
| Diridon Station | 8 | 3 |
| Downtown San José Station | 5 | 1 |
| 28 th Street / Little Portugal Station | 7 | 0 |
| East Portal | 5 | 0 |
| Sub Total | 32 | 7 |
| CONTRACTOR LED RELOCATIONS | | |
| West Portal / NHY / SCS | 3 | 0 |
| Diridon Station | 4 | 0 |
| Downtown San José Station | 0 | 0 |
| 28 th Street / Little Portugal Station | 3 | 0 |
| East Portal | 2 | 0 |
| Sub Total | 12 | 0 |
| Total | 44 | 7 |

VTA revised the above table to report design and construction progress with additional clarity. However, the sum of relocations in design and construction do not total the previously reported 65 total relocations. PMOC confirmed in the Sponsor's written reporting that there are 13 utility relocations that have not started in design and recommends that total number (65) not be lost in future meeting reporting as an important factor in monitoring progress. During the March 14, 2024, monthly meeting VTA reported the following:

- West Portal:
 - PG&E 115kV power is expected Q2 2025

- Cogent/Sprint relocation design submitted for review.
- *Diridon West Vent Shaft:*
 - AT&T relocations design by Utility owner on-going
 - PG&E electrical design by Utility owner on-going
- *Downtown Station:*
 - PG&E gas and Electrical relocations ready for construction
 - AT&T conducting Potholing for design verification before construction.
- *East Portal:*
 - KST finalizing the utility relocation alignments for Sewer, Storm Water, PG&E gas and Electric at East Portal

K. Construction

During the March 14, 2024, monthly meeting VTA reported the following early works procurement / negotiations activities and status of progress:

- *Early Works Package Negotiations:*
 - *EWP 3A – West Portal Initial Sitework: negotiations completed. NTP end of February.*
 - *EWP 7A – West Portal Instrumentation & Monitoring: negotiations completed, NTP end of February.*
 - *EWP 11A – West Portal TBM and Plant Power: negotiations completed, NTP end of February.*
 - *EWP 2A – Precast Final Lining, Material & Plant procurement: negotiations ongoing.*
 - *EWP 3B – West Portal Sitework (Phase 2): negotiations ongoing.*
 - *EWP 3C – West Portal TBM Launch Structure: negotiations near completion.*
 - *EWP 9A – TBM Tunnel Support Equipment: negotiations ongoing.*
 - *EMP 11B – West Portal TBM and Plant Power Phase 2: negotiations ongoing.*
 -
- *Construction – West Portal:*
 - *West Portal early works initial sitework start - Amendment signed and issued NTP end of February.*
 - *Completed Right of Entry discussions with UPRR.*
 - *Continuing SSWP process with Caltrain for the installation of existing track instrumentation and monitoring devices*
 - *Developing SSWP with Caltrain to pothole existing utilities in Caltrain ROW*
 - *Developing site specific work plans for initial construction activities*
 - *Updating VTA policies and procedures for construction*
 - *Reviewing Construction Submittal*

- Construction - Facilities–Downtown San José, Diridon Station, 28thStreet/ Little Portugal:
 - *Developing early work and major construction facilities CTMP (Construction Traffic Management Plan) No. 4.*
 - *Property protection assessment development ongoing.*
 - *Developing Enabling Works packages for the station facilities.*
- Construction - Project-wide:
 - *KST developing Pre and Post Construction Property Survey plans.*
 - *Developing obstructions report/plan for existing structure foundation investigations.*
- Construction - Diridon Station Temporary Parking. Contract V22160:
 - *Miscellaneous electrical work in the interior*
 - *Work on-going on the fire alarm and testing.*
 - *Continue to work on the rooms (Telecom, Electrical, Office and Restroom)*
 - *Did an informal punch walk.*

L. Vehicle Technology and Procurement

Expansion of BART’s existing fleet to serve the BSVII service to Santa Clara is included in BART’s Rail Fleet Management Plan (RFMP). Forty-eight vehicles have been identified in the BSVII budget. However, all vehicles will be procured under BART’s vehicle procurement contracts not through a separate VTA procurement. BART’s current RFMP includes sixty vehicles that VTA will be capitally responsible for, but only the forty-eight required for BSVII will have a federal interest through the BSVII grant. At the February 08, 2024, monthly meeting, VTA reported that they are working with BART to get the next vehicle option executed under BART’s agreement with the vehicle manufacturer. *No update was provided at the March 14, 2024, monthly meeting.*

M. Project Cost

VTA has provided FTA and the PMOC their new baseline cost estimate reflecting status through June 2023. This new baseline cost estimate is being reviewed in accordance with FTA’s OP 33 Project Cost Review. The PMOC has received those documents for supporting VTA’s Entry to Engineering and are reviewing them in coordination with the ongoing risk assessment.

The following is a summary of VTA’s SCC Cost Estimate Workbook submission associated with their New Starts rating request in August 2022. This working budget, also referred to as VTA’s New Starts Basis, is in place until the new baseline effort is complete.

| SCC | Base Year Dollars w/o Contingency (\$) | Base Year Dollars Allocated Contingency (\$) | Base Year Dollars TOTAL (\$) | YOE Dollars TOTAL (\$) |
|---|--|--|------------------------------|------------------------|
| 10 GUIDEWAY & TRACK ELEMENTS | 1,402,611,590 | 211,095,837 | 1,613,707,427 | 1,781,417,743 |
| 20 STATIONS, STOPS, TERMINALS, INTERMODAL | 1,401,548,777 | 227,335,502 | 1,628,884,280 | 1,876,483,510 |
| 30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | 208,610,864 | 61,691,476 | 270,302,339 | 315,238,795 |
| 40 SITEWORK & SPECIAL CONDITIONS | 249,180,987 | 39,672,536 | 288,853,523 | 315,018,472 |
| 50 SYSTEMS | 489,311,625 | 75,839,731 | 565,151,356 | 685,070,957 |
| 60 ROW, LAND, EXIST. IMPROV. | 168,313,887 | 145,550,424 | 313,864,311 | 321,581,867 |
| 70 VEHICLES (48) | 173,880,000 | 8,694,000 | 182,574,000 | 208,440,828 |
| 80 PROFESSIONAL SERVICES | 1,950,744,657 | 83,817,088 | 2,034,561,745 | 2,257,833,697 |
| 90 UNALLOCATED CONTINGENCY | | | 875,000,000 | 991,570,760 |
| 100 FINANCE CHARGES | | | 431,059,911 | 564,953,067 |
| TOTAL (SCC 10-100): | | | 8,203,958,892 | 9,317,609,696 |

VTA has reported expenditures through January 31, 2024, including accruals, which total \$870.4M. Project costs have been expended in SCC10, SCC 40, SCC 60, and SCC 80. Project commitments include SCC 10, SCC 40, SCC 60, and SCC 80 and total \$1,181M through January 31, 2024.

A new preliminary baseline budget was developed reflecting the CP2 Stage 1 baseline, and the updated design-bid-build (DBB) contract packaging strategy for CP1, CP3 and CP4. This preliminary baseline budget (with expenditures through June 30, 2023) was submitted to FTA in October 2023, to support the risk assessment. *The updated project capital cost estimate, including SCC Workbook, Baseline Schedule, Basis of Schedule, and Basis of Estimate is currently under PMOC review.*

Upon completion of the FTA’s risk assessment, the updated preliminary baseline budget is anticipated to be adopted as the new Project Baseline Budget. *Various additional detailed documents regarding costs were provided to PMOC in November, December, and January. The preliminary budget reported to VTA management and Board of Directors in October 2023 and*

submitted to FTA/PMOC for review and consideration in the risk assessment is summarized below.

| <i>SCC</i> | <i>Preliminary Budget (\$M)</i> |
|--|---------------------------------|
| <i>10 GUIDEWAY & TRACK ELEMENTS</i> | <i>\$2,819</i> |
| <i>20 STATIONS, STOPS, TERMINALS, INTERMODAL</i> | <i>\$1,932</i> |
| <i>30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS</i> | <i>\$337</i> |
| <i>40 SITEWORK & SPECIAL CONDITIONS</i> | <i>\$568</i> |
| <i>50 SYSTEMS</i> | <i>\$1,329</i> |
| <i>60 ROW, LAND, EXIST. IMPROV.</i> | <i>\$241</i> |
| <i>70 VEHICLES (48)</i> | <i>\$201</i> |
| <i>80 PROFESSIONAL SERVICES</i> | <i>\$2,779</i> |
| <i>90 UNALLOCATED CONTINGENCY</i> | <i>\$1,550</i> |
| <i>100 FINANCE CHARGES</i> | <i>\$481</i> |
| <i>TOTAL (SCC 10-100):</i> | <i>\$12,237</i> |

N. Project Schedule

VTA did not provided an updated schedule. A detailed analysis will resume when a revised baseline is adopted for entry to engineering.

VTA has stated “The January 2024 schedule update (February 1, 2024, data date) and preliminary February 2024 schedule updates (March 1, 2024 data date) are being merged to form the baseline schedule for presentation to the VTA Board of directors in March 2024 in preparation for submitting the New Starts Engineering Application.”

VTA provided a milestone chart with the dates by quarter and year. The table includes the preliminary baseline forecast for reference as well as last month forecast and current month forecast for each milestone. No dates moved since the last month. The milestone dates that have changed since the preliminary baseline forecast are as follows:

- VTA Request to enter NSEE went from Q3 2023 to Q1 2024.*
- FTA Issue Entry into NSEE went from Q1 2024 to Q2 2024.*

A summary narrative was provided noting that “The VTA BSVII program schedule has been updated to reflect the Preliminary Baseline Schedule submission to FTA. The baseline schedule that was used as a basis to submit to FTA has been progressed with the Data Date of January 1,

2024. The December 2023 Monthly Schedule Update indicates December 31, 2036, as the completion date (Revenue Service Date).”

VTA also noted that the critical path was impacted this month. West Portal construction is on the critical path as of this reporting period. The following items are on the critical path as of this update.

1. West Portal enabling work (CP2)
2. TBM launch structure, excavation, and base slab (CP2)
3. TBM assembly, set up, and testing (CP2)
4. Tunnel mining from West Portal to DTSJ station (CP2)
5. DTSJ Station: Primary Headhouse heavy construction & Adits mining (CP2)
6. DTSJ Station: Primary Headhouse construction (CP4)
7. DTSJ Station: Primary Headhouse Systems (CP1)
8. BART PTC Validation / Testing
9. BART OCC Validation / Testing

The near-critical items as of this update are:

1. CP2 – TBM procurement, fabrication, and shipping
2. CP2 – TBM power long lead procurement and installation

The Master Project Schedule (MPS) is comprised of a summary schedule plus the following twelve individual schedules:

1. Program Management and Administration
2. Right-of-Way Acquisition
3. Design
4. Advertise, Bid, and Award
5. Utilities
6. Third Party
7. Vehicles & Parking
8. Testing and Commissioning
9. Systems
10. Contract Package 2
11. Yard/SC Station
12. Underground

VTA reported the Revenue Service Date as 22OCT36 on the new baseline schedule (data date 01AUG23). The February 2024 BSVII Monthly Report included a Revenue Service Date of 31DEC36.

O. Project Risk

Overall Status

PMOC reviewed various versions of the Risk and Contingency Management Plan (RCMP) leading up to VTA’s EPD selection. On May 26, 2023, VTA submitted an updated RCMP (Rev.

0.D dated May 22, 2023) with the above-noted PMP Subplans to support VTA's New Starts request to enter Engineering. On October 11, 2023, VTA submitted another revision of the RCMP (Rev B dated September 14, 2023) associated with the new baseline cost and schedule.

VTA reported having continued their on-going risk review meetings with project and discipline teams, updating risk response plans and risk register. VTA has included the FTA and PMOC in the BSVII Risk review sessions for May, June, July, August, September, and October 2023.

VTA has previously indicated, as per CP2 contract requirements, the KST team is anticipated to include a risk register following the review of the Configuration Design submittal. The BSVII team will review KST's identified risks with BSVII disciplines and revise the Program Risk Register as appropriate and establish a dedicated joint VTA/KST CP2 Project Risk Register that will be reviewed with the KST team on a regular basis. As of the risk workshop held in January 2024, this register has not been provided to PMOC.

The project risk profile may well have changed either favorably or unfavorably since the EPD submission and is likely further impacted as the project has moved back into the New Starts program. *The PMOC has completed a refreshed risk assessment given the new baseline cost and schedule by VTA that reflects their planned delivery and updated packaging strategy, along with awarded CP2 contractor (KST) approved innovations. The Entry to Engineering risk workshop for the project was conducted in January 2024 with the FTA, the project sponsor and PMOC. While the risk assessment and associated PMOC reporting is being completed, there are limited PMOC comments against the VTA risk updates for the latest monthly reporting period. VTA is anticipated to incorporate the FTA/PMOC risk assessment results into their new baseline for a request to enter engineering.*

New Risk: None for the period

Retired Risk: None for the period

Increased Risk: None for the period

Reduced Risk: None for the period

Provided in the table below are the Top 10 risks as reported by VTA for the period (please also refer to Attachment D for additional risk detail).

| VTA January, 2024 Risk Register Top 10 | | |
|--|--|----------------|
| Risk ID | Risk Title | VTA Risk Score |
| BSV-203 | Timely readiness and cost of the West Portal TBM launch facility. | 20 |
| BSV-211 | Opportunity for eliminating DTSJ secondary HH. | 15 |
| BSV-005 | Unanticipated or inadvertent damage to historic buildings, critical utility & other structures due to vibration and/or settlement. | 12 |
| BSV-029 | VTA financial capacity / funding plan to finance potential project cost increases. | 12 |
| BSV-036 | Shortage of construction labor to support aggressive schedule resulting in competition for resources. | 12 |
| BSV-096 | Testing and Commissioning delays due to various factors. | 12 |
| BSV-132 | Management capacity with staff continuity and availability of employees with technical experience to replace departing staff. | 12 |
| BSV-152 | Truck traffic volume for disposal of muck from the tunnel resulting in additional costs. | 12 |
| BSV-170 | KST proposed Stage 2 Lump Sum price increase VTA CP2 budget. | 12 |
| BSV-201 | East Portal - Complicated ROW acquisitions with Kolander and A&B properties. | 12 |
| | | |
| | Threat | Opportunity |

During the PMOC monthly meeting held March 14, 2024, VTA presented the following progress updates:

- Ongoing internal Risk Review meetings with Program, Project, Discipline Leads and key stakeholders.
- Continue refresh of Program Risk Register consistent with cost and schedule new baseline submitted to the FTA/PMOC.
- Progressing update of the Risk and Contingency Management Plan consistent with cost and schedule baseline updates.
- No new risk added, or existing risk retired during this period.

P. Quality Assurance/Quality Control

PMOC reviewed various versions of the Quality Management Plan (QMP) leading up to VTA's EPD selection. On May 26, 2023, VTA submitted an updated QMP (Rev. 2 dated May 1, 2023) with the above-noted PMP Subplans to support VTA's New Starts request to enter Engineering. PMOC reviewed the revised QMP and provided preliminary summary comments to VTA on June 27, 2023. The QMP (Rev. 2 dated November 1, 2023) was submitted to the PMOC on November 22, 2023

During the March 14, 2024, monthly meeting VTA reported the following quality activities:

- CP2: Completed Geotech lab audit on Construction Testing Services (CTS) Laboratory.
- CP2: Completed audit of KST Design Quality Management Plan (DQMP), Design Management & FTA QMS Guidelines Element 3 Design Control
- CP1, CP3 & CP4: GEC completing responses to the design program audit and has updated the GEC DQMP to Revision 4.

Q. Safety and Security

VTA and BART previously indicated an intent to conduct joint Fire Life Safety and Security Committee (FLSSC) and Safety and Security Review Committee (SSRC) meetings for the early phase of the BSVII program.

The monthly SSRC meetings commenced in January 2021, with the latest meeting held October 25, 2023. On August 30, 2023, VTA issued the SSRC charter. The SSRC is chaired by VTA Program Administrator and includes VTA (Security Specialist, Chief of System Safety & Security, System Safety & Security Lead, and project managers), BART (engineering, operations, system safety, and police), BSVII Program Management Team, Federal Transit Administration, and the Project Management Oversight Contractor.

The first FLSSC meeting was conducted on October 7, 2021. FLS (Fire Life Safety) continues to monitor project progress, but there are no significant updates to report. The second FLSSC meeting was scheduled for May 11, 2023, then cancelled; the next meeting was held on October 18, 2023, when removal of the mid-tunnel ventilation facilities and the current design for the EVS were discussed.

On August 30, 2023, VTA issued the FLSSC charter. The FLSSC charter is co-chaired by VTA Chief Program Delivery Officer and BART Assistant General Manager of Operations. It includes committee members from the Cities of San José and Santa Clara fire and police departments, Santa Clara Sheriff, California Public Utilities Commission (CPUC), BART (engineering, system safety, and police), and VTA (System Safety & Security, and project managers). The CPUC is the State Safety Oversight Agency (SSOA) as certified by FTA.

During the March 14, 2024, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:

- *Derived PHA and TVA items from the current PHA and TVA are being compiled.*
- *A Fire-Life Safety and Security Committee Meeting was held 2/27 with several items presented to the committee for review.*
- *Field safety training materials are being finalized for PMT staff.*
- *The SSMP and SSCP are being signed for submittal to FTA/PMOC and CPUC.*

R. Americans with Disabilities Act (ADA)

VTA produced an Accessibility Report to meet the EPD application requirements specified in the NOFO (Notice of Funding Opportunity).

S. Buy America

VTA has committed to meeting the Buy America requirements in their PMP documentation. Additional details regarding how they intend to meet the 70-percent content threshold and their management of contractor requirements have yet to be made available to the PMOC for review.

VTA is including a notification in the RFQ to all prospective bidders that Buy America requirements will be part of each contract. VTA sets the expectation that each supplier and

subcontractor will be required to research and present findings for verification. Additional work is needed to coordinate the requirements and compliance at a program level. VTA indicated that their contract technical teams will provide input regarding that program coordination.

No update was provided at the March 14, 2024, monthly meeting. PMOC recommends that VTA revisit their plan for Buy America implementation and management with respect to Buy America Build America changes as well as the program's adjusted delivery plan.

T. Start-Up, Commissioning, Testing

VTA and their contractors will be responsible for Phase 1 and 2 system integration testing. Upon successful completion of Phase 2 system integration testing, the system will be turned over to BART to complete Phase 3 system integration and pre-revenue testing. As noted above, VTA has established a Rail Systems Organization (RSO) teaming with BART to manage systems and operations input to project development and address related issues. The RSO is developing the System Integration Testing Program Plan. The testing plan will define BART Phase 3 System Integration Testing (SIT) to be Operations Control Center (OCC) validation of tests previously performed. The intent of Phase 3 SIT is not to introduce new tests to be performed. However, if there are system validation failures during SIT Phase 3 BART will have the right to perform new tests until all testing discrepancies are cleared.

As previously noted, VTA has determined that CBTC design will be progressed for implementation on the BSVII extension. To accommodate the technology, BART CBTC implementation from Warm Springs to Berryessa needs to be completed. VTA provided the following milestones related to this phase/segment of BART's project:

- *Migration design from Q3 2025 to Q4 2029*
- *Procurement from Q4 2025 to Q3 2028*
- *Installation from Q1 2029 to Q4 2029*
- *Testing and Commissioning from Q3 2029 to Q4 2030*
- *Revenue service expected at the end of 2030.*

No update was provided at the March 14, 2024, monthly meeting.

U. Action Items Table

| Item | | Responsible Party | Date | | | Status / Action Required |
|------|--|-------------------|------------|------------|-----------|---|
| No. | Description | | Identified | Due | Complete | |
| 152 | Provide timeline for CBTC Implementation between Warm Springs & Berryessa | VTA | 12/14/2023 | 01/11/2024 | 2/27/2024 | Closed <i>High-level dates for key CBTC activities were provided via email on February 27, 2024.</i> |
| 155 | Notify PMOC when EWP's are executed | VTA | 2/8/2024 | 3/1/2024 | | In-Progress <i>3/7/2024 – VTA notified PMOC about execution of EWP's 3a, 7a, & 11a</i> |
| 156 | Send notification email to FTA/PMOC with link to Q4 2023 MMRP update | VTA | 2/8/2024 | 3/1/2024 | 2/20/2024 | Closed <i>Received notification email 2/20/2024</i> |
| 157 | Set up focus meeting to update Third-Party Agreement tracking matrix | VTA | 3/14/2024 | 3/29/2024 | 3/18/2024 | New and Closed <i>Met on 3/18/2024. VTA to update and submit matrix to PMOC</i> |
| 158 | Provide update on parcels that have not yet entered acquisition steps (pending design decisions) | VTA | 3/14/2024 | 3/29/2024 | | In Progress – <i>interim update provided via email 3/22/2024; can be closed when information is incorporated into monthly meeting presentations.</i> |

3. Project Monitoring Report Attachments

Attachment A. List of Acronyms

Attachment B. Monthly Meeting Agenda

Attachment C. Monthly Meeting Attendees – *not used this month.*

Attachment D. List of Documents Received

Attachment E. VTA Top 10 Project Risks

Attachment F. PMOC Memorialized Risk Analyses

Attachment G. Project Milestones/Key Events

Attachment H. Project Map

Attachment I. Memorialized Summary Risk Schedule

A. List of Acronyms

| | |
|----------|---|
| ADA | Americans with Disabilities Act |
| BART | Bay Area Rapid Transit |
| BIM | Building Information Modeling |
| BSVII | BART Silicon Valley Phase II |
| CAGR | Compound Annual Growth Rate |
| Caltrans | California Department of Transportation |
| CBC | California Building Codes |
| CBTC | Communications Based Train Control |
| CCB | Change Control Board |
| CIG | Capital Investment Grants |
| CMGC | Construction Manager / General Contractor |
| CoC | Certificate of Conformance |
| CPUC | California Public Utilities Commission |
| CQMP | Construction Quality Management Plan |
| CSC | City of Santa Clara |
| CSJ | City of San José |
| CQMP | Construction Quality Management Plan |
| CTMP | Construction Transportation Management Plan |
| DCM | Design Criteria Manual |
| DMP | Design Quality Management Plan |
| EVS | Emergency Ventilation Structure |
| EPD | Expedited Project Delivery |
| FLSS | Fire, Life, Safety and Security |
| FTA | Federal Transit Administration |
| GMP | Guaranteed Maximum Price |
| IDR | Interdisciplinary Review |
| IMPS | Integrated Master Project Schedule |
| IWP | Integrated Work Program |
| LOE | Level of Effort |
| LS | Lump Sum |
| MCCP | Management Capacity and Capability Plan |
| MSS | Market Saturation Study |
| NDA | Non-disclosure Agreement |
| NEPA | National Environmental Policy Act |
| NFPA | National Fire Protection Association |
| NOFO | Notice of Funding Opportunity |
| NYMF | Newhall Yard and Maintenance Facility |
| NTO | Notice to Owner |
| OP | Oversight Procedure |
| PCJPB | Peninsula Corridor Joint Powers Board |
| PDB | Progressive Design Build |
| PHA | Preliminary Hazard Analysis |
| PM | Project Manager |
| PMOC | Project Management Oversight Contractor |
| PMP | Project Management Plan |

| | |
|--------|---|
| QA/QC | Quality Assurance/Quality Control |
| QAP | Quality Assurance Plan |
| QMP | Quality Management Plan |
| RAMP | Real Estate Acquisition Plan |
| RCMP | Risk and Contingency Management Plan |
| RFIF | Request for Industry Feedback |
| RFMP | Rail Fleet Management Plan |
| RFP | Request for Proposal |
| RFQ | Request for Qualifications |
| ROW | Right of Way |
| RSO | Rail Systems Organization |
| RVTM | Requirements Verification Traceability Matrix |
| SCC | Standard Cost Categories |
| SOQ | Statement of Qualifications |
| SSI | Sensitive Security Information |
| SSMP | Safety and Security Management Plan |
| SSOA | State Safety Oversight Agency |
| SSRC | Safety and Security Review Committee |
| STOPS | Simplified Trips-On-Project Software |
| SVBX | Silicon Valley Berryessa Extension |
| SVTC | Silicon Valley Transit Consultants |
| TBM | Tunnel Boring Machine |
| TOD | Transit Oriented Development |
| TVA | Threat and Vulnerability Analysis |
| TWG | Technical Working Group |
| U.S.C. | United States Code |
| VE | Value Engineering |
| VTA | Santa Clara Valley Transportation Authority |

B. Monthly Meeting Agenda

Monthly Coordination Meeting/Teleconference

VTA BART Silicon Valley Extension Phase II

Thursday, March 14, 2024 – 10:00am (Pacific)

Conference Connection: MS Teams

1. Introductions/Roll Call
2. Key Agency-level updates (organization, financial, legal, safety, etc.)
3. Action Items from latest Monthly Call
4. Issues and Concerns from latest Monthly Meeting
5. Project Status
 - a. Project Management Organization Updates
 - i. PMP and sub-plans
 - ii. Management Capacity and Capability
 - b. Project Summary Description
 - c. Key Project Issues
 - i. Key Personnel staffing update
 - ii. Construction Management Procurement update
 - iii. CP2 Early Work packages update
 - iv. Revenue Vehicle procurement update
 - d. NEPA / Environmental Mitigations
 - e. Project Delivery Method and Procurement Status
 - i. Project-Wide
 - ii. Systems DBB
 - iii. CP2 PDB
 - iv. Facilities DBB
 - v. Stations DBB
 - f. Design Status
 - i. Project-Wide
 - ii. Systems
 - iii. CP2 – Tunnel & Trackwork
 - iv. Facilities
 - v. Stations
 - g. Real Estate Acquisition/Relocation Status
 - h. Public Involvement/Outreach
 - i. Third-Party Agreements
 - j. Utilities
 - k. Construction
 - l. Project Controls
 - i. Schedule Updates
 - ii. Cost and Expenditures Updates
 - iii. Change Order Status
 - iv. Contingency Status

- m. Project Risk Management
 - n. Quality Assurance / Quality Control
 - o. System Safety and Security
6. New Action Items
 7. Upcoming Monthly Coordination Meetings:
 - a. April 11, 2024, 10:00am (Pacific)
 - b. May 09, 2024, 10:00am (Pacific)

C. List of Documents Received

| Document | Received |
|---|-----------|
| BSVII Monthly Progress Report December 2023 | 2/2/2024 |
| BSVII MPS December 2023 Updates (01-26-2024) | 2/2/2024 |
| BSVII MPS December 2023 Detailed Schedule | 2/2/2024 |
| Third party agreement tracking 12.29.23 update | 2/2/2024 |
| BSVII Project Risk Register DEC-2023 | 2/2/2024 |
| <i>MMRP Quarterly Reporting notification for Q4 2023 report posting</i> | 2/20/2024 |
| <i>Milestones for BART's CBTC implementation between Warm Springs and Berryessa</i> | 2/27/2024 |
| <i>Beneficial Reuse Salt Ponds Restoration Project Schedule</i> | 2/27/2024 |
| <i>BSVII Monthly Progress Report January 2024</i> | 2/29/2024 |
| <i>BSVII Project Risk Register JAN-2024</i> | 2/29/2024 |
| <i>Third party agreement tracking 1.31.24 update</i> | 3/1/2024 |

D. VTA Top 10 Project Risks

| Risk ID | Risk Title | Risk Description | Risk Score | Action Items Description |
|---------|--|---|------------|--|
| BSV-203 | Timely readiness and cost of the West Portal TBM launch facility | Cause: Constructability challenges of the West Portal caterpillar shaft, permit/design review coordination with UPRR, disagreement between KST/VTA on EWP estimates, approval of EWPs. Risk: Longer time to design and construct West Portal facility Impact: Delays to launch of TBM operations | 20 | 1. Following input from constructability review workshop, KST to finalize design of EWP 3C (SOE) construction. 2. Develop documentation for VTA Board approval on EWP Budgets. 3. Explore option to have partial NTP for KST sub-contractor to start Caterpillar Shaft construction. |
| BSV-211 | Opportunity for eliminating DTSJ Secondary Headhouse | Cause: VTA's VE study identified elimination of DTSJ Secondary Headhouse Risk: Reduction in capital cost for eliminating DTSJ SH as well as all ROW parcels associated with it Impact: Direct cost savings | 15 | 1. Implement the approved VE and realize savings as part of 60% design estimate. |
| BSV-005 | Unanticipated damage to historic buildings, critical utilities & other structures | Unanticipated or inadvertent damage to buildings (especially historic buildings), structures and/or utilities caused by vibration and/or settlement during construction leading to additional cost to mitigate. Mainly focused downtown along Santa Clara St, but extending to the area encompassed by settlement trough. | 12 | 7. Obtain access (PTE) to perform structural inspection on historic, sensitive structures and utilities. 8. KST to develop instrumentation and monitoring program for the sensitive structures. VTA to support KST in obtaining access to install and monitor instrumentation as appropriate. |
| BSV-029 | VTA financial capacity / funding plan to finance potential future project cost increases | Project is currently at an early stage of design. Changes in cost may result from further design development and coordination with stakeholders. It is conceivable that future cost estimates will exceed current available funding and/or local funds may expire, necessitating the identification of additional funding sources and/or debt financing. This could result in a) delays in progressing the project, b) changes to scope in order to align with identified funding and project cost. | 12 | 2. Update financial plan following agreement with FTA on BSVII Program Budget. 3. Identify secondary mitigation and review with BART as applicable. |
| BSV-036 | General construction labor shortage / labor premiums resulting in delays or increased cost | With so many on-going concurrent projects in the state, and the potential for more projects ramping up due to Federal /State stimulus to create jobs, there may be a shortage of skilled labor to support aggressive project milestones. In addition, competition of resources for skilled labor (operators, electricians, tunnel moles, etc.) and equipment may create the need to pay a premium. | 12 | 2. Continue to monitor economic trends. 3. Continue project public outreach efforts. |
| BSV-096 | Testing and Commissioning delays due to various factors | Testing and commissioning delays due to: - Insufficient time allocated to the schedule for testing activities. - Unanticipated systems integration/interface issues. - Inadequate installation verification and QA/QC processes implemented. - Failed testing of equipment and/or testing parts requiring major rework. - Improper handoff from other CPs to systems contractor. | 12 | 2. Develop detailed resources loaded schedule for system's testing, commissioning and training activities. 3. Rigorous implementation of lessons learned including integrating BART's Operations (Maintenance and Engineering) team into the design, construction and testing phases of the program. 4. PMT to work with GEC to ensure clear definition of the inspection and test conditions to be included in the CP1/3/4 contract documents as they constitute SOW definition. Also, PMT to work with the CP 2 Management Team to ensure KST technical deliverables clearly specify equivalent requirements for their contracted SOW. As part of the review process with BART and other stakeholders the intent is to give reviewers the opportunity to comment on the stated installation and test conditions specified. 5. Introduce the Rail Acceptance Officer early on during the testing phase. 6. Establish joint testing and commissioning organization, under an experienced systems integration manager. Ensure Project key personnel include: Interface/Integration Manager (Facilities Design), Systems Design Integration and Systems Testing/Start-Up Manager. 7. VTA, BART and other stakeholders jointly develop all technical, operational and maintenance requirements for the rail systems, and fixed facility systems. 8. Develop detailed SOW services for installation verification and QA/QC within procurement contracts. 9. VTA and its representatives responsible for defining testing, turnover and acceptance for their integrated testing and pre-revenue demonstration in support of passenger service. |

| Risk ID | Risk Title | Risk Description | Risk Score | Action Items Description |
|---------|--|---|------------|--|
| BSV-132 | Program staffing capacity and continuity (VTA/PM/CM/Design) to support long program timeline | Cause: BSVII Program continues over 10+ years, key personnel changes, limited availability of talent locally Impact: Knowledge gaps during project implementation, lead to ineffective contract interface management and integration / turn-overs from one to another contractor and finally to BART, resulting in impacts to scope, schedule and budget. | 12 | 1. Develop succession plan for each key position that identifies another role/individual who can take on interim role if a key position departs the project. Implement cross-training within team members to ensure readiness for interim role. This will mitigate any gaps in knowledge and capabilities of key performers. 2. Extend this plan to VTA, VTA's consultant team and BART given the importance of the management of scope, schedule, and budget to achieve project goals. |
| BSV-152 | Truck traffic volume for disposal of muck from the tunnel resulting in additional costs | The Oct 2023 revised cost estimate already includes cost of muck disposal via traditional haul/disposal (i.e., at disposal sites with added cost) via trucks at market rate. As the muck disposal is very costly, there is a risk that eventual disposal cost may be higher than currently estimated due to actual volume of trucks at West Portal that may strain public traffic requiring additional work constraints or limitations. | 12 | 4. Determine maximum and average truck count per day during TBM mining for removal of spoils. 5. Investigate market capacity of trucks. 6. Maximize truck capacity (load size) to increase spoils removal per truck. 7. Establish potential overflow location(s) on-site. 8. Consider weekend, extended hour hauling if required and allowed. |
| BSV-170 | KST proposed Stage 2 Lump Sum price increase VTA CP2 budget | During the design development, potential challenges arising with scope growth, complicated means and methods, and current market conditions may result in KST proposed Stage 2 GMP higher than VTA's preliminary baseline. | 12 | 4. Review KST's Configuration Design estimate to identify potential areas of major difference between VTA and KST and work throughout the Stage 1 period to resolve the difference. 5. Identify secondary mitigations to relieve pressure on VTA budget. |
| BSV-201 | East Portal - Complicated ROW acquisitions with Kolander and A&B properties | Cause: Kolander and A&B properties - Potential for litigation with owner, unclear BPE requirements, removal of access to street, cell tower and business relocations Risk: Potential untimely finalization of technical documents needed for BPE, access closure, delays in tunnel easement language finalization Impact: Delays in obtaining either easement or final acquisition | 12 | 2. VTA to work with property owner to redesign access, obtain city permits and reconstruct new access. Target Aug 2025. 3. VTA Real Estate to acquire Kolander property and relocate business by Oct 2025. 4. Work with KST to split sequencing of work between north of Las Plumas and south of Las Plumas. South side of Las Plumas is near critical path. |

Source: BSVII Monthly Progress Report January 2024

E. Project Milestones/Key Events

| Milestone | Planned Date |
|---|--------------|
| General Key Milestones | |
| Contract Package 1 Systems Design Bid Ready & Review | 10-Mar-27 |
| Contract Package 3 Newhall Yard and Santa Clara Station Design Bid Ready & Review | 22-Jan-26 |
| Contract Package 4 Stations and Support Facilities Design Bid Ready & Review | 9-Jan-26 |
| Start of Revenue Service | 22-Oct-36 |
| Construction Contracts Key Milestones | |
| Contract Package 1 Systems | |
| Contract Package 1 NTP Systems | 18-Apr-28 |
| Track Testing Completion | 17-Jan-36 |
| Systems Testing Completion Turn Over to BART | 18-Jan-36 |
| Contract Package 2 Tunnel and Trackwork | |
| Contract Package 2 NTP2 Tunnel & Trackwork | 15-Nov-24 |
| Order TBM | 29-Sep-23 |
| Deliver TBM | 30-Jun-25 |
| Start of Tunneling | 4-Dec-25 |
| Start of Trackwork | 7-Aug-28 |
| Contract Package 3 Newhall Yard and Santa Clara Station | |
| Contract Package 3 NTP Newhall Yard and Santa Clara Station and Parking Garage | 3-Feb-27 |
| Santa Clara Station Fit-Out Completion | 26-Dec-29 |
| Santa Clara Station Parking Garage Construction Completion | 20-Sep-30 |
| Newhall Yard Trackwork Completion | 18-Sep-31 |
| Contract Package 4 Stations | |
| Contract Package 4 NTP Stations and Support Facilities | 25-Mar-27 |
| Diridon Station Fit-Out Completion | 27-Jun-33 |
| DTSJ Station Fit-Out Completion | 20-Sep-32 |
| 28th Street Station Fit-Out Completion | 6-Oct-33 |
| 28th Street Station Parking Garage Construction Completion | 12-Nov-32 |

Source: VTA's BART Silicon Valley Phase II Extension Project Basis of Schedule, New Starts Entry to Engineering Revision A, September 19, 2023

F. Project Map

