

**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 April 30, 2024

**PROJECT MONITORING REPORT**

Draft – May 20, 2024

Final – May 30, 2024

PMOC Contract Number: 69319519D000021  
Task Order Number: 69319522F30057N

Project Number: 1  
Project Type: New Starts  
Project Phase: Project Delivery  
Task Order Issued September 21, 2022

OP Nos. Referenced: 1, 25

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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 four stations (three located in San José and one in Santa Clara) along with a maintenance facility at Newhall Yard. The project's easternmost station, 28th Street/Little Portugal, will be located underground near Santa Clara Street and U.S. 101. Two stations, also underground, are planned for downtown San José: Downtown San José Station at Santa Clara Street near Market Street; and Diridon Station at the Diridon Intermodal Transit Center. The westernmost station in the City of Santa Clara is planned to be at-grade adjacent to the Santa Clara Caltrain Station. The Newhall Yard and Maintenance Facility is planned to be located at the end of the alignment directly adjacent to the Santa Clara Station. 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.

VTA selected the locally preferred alternative (LPA) in November 2001. The project originally entered the Capital Investment Grants (CIG) program Project Development phase in March 2016. The locally Preferred Alternative (LPA) was adopted into the Metropolitan Transportation Commission's financially constrained Long-Range Plan [Final Plan Bay Area 2040.pdf](#) ([planbayarea.org](http://planbayarea.org)) on July 26, 2017.

VTA began pursuing FTA's Expedited Project Delivery (EPD) Pilot Program in early 2018. In April 2018, FTA agreed to extend CIG Project Development while VTA pursued funding through the EPD Pilot Program and stated the Project would be allowed to return to CIG Project Development without penalty should the EPD Pilot Program be determined to no longer be a good fit. Per the National Environmental Policy Act of 1969 (NEPA), BSVII received a Record of Decision (ROD) from FTA on June 18, 2018. In April 2021, VTA submitted an EPD Pilot Program application to FTA. In October 2021, FTA issued a Letter of Intent (LOI) indicating it would obligate funds under the EPD Pilot Program on the condition that VTA demonstrate local funding commitment and readiness to receive a grant within two years.

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 2022 New Starts Basis total project cost of \$9.318 Billion.

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's new baseline cost and schedule estimates include a total project cost of \$12.237B and Revenue Service Date in October of 2036.

FTA/PMOC held a Risk Workshop with VTA on January 16-18, 2024. Risk review results advised an increase in costs to \$12.746B 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.

Since FTA issued the ROD in 2018, VTA has closely coordinated with FTA to determine when and if additional analysis was needed to maintain compliance with NEPA. FTA determined that a NEPA Re-evaluation was required for project changes at the EPD stage and again for project changes introduced by the Progressive Design Builder Innovations and Value Engineering initiatives adopted for the Entry to Engineering design. Both Re-evaluations confirmed the conclusions in the 2018 ROD are still valid. FTA approved the Re-evaluation associated with the Entry to Engineering preliminary design baseline in March of 2024.

VTA formally requested FTA's approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B and a Revenue Service Date (RSD) of February 2039.

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**

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 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.

PMOC is concerned about 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 about the delay in executing the Final Engineering Cost Reimbursement Agreement with the Union Pacific Railroad prior to the Support of Excavation Early Works at the West portal.

## D. Table 1 Core Accountability Items

		FTA P65 Forecast (EPD Letter of Intent) (Oct 2021)	VTA New Starts Basis (Sept 2022)	New Baseline New Starts – Entry to Engineering (Oct 2023)	FTA P65 Forecast - Entry to Engineering (Mar 2024)
<b>Cost</b>	Capital Cost Estimate	\$9.148B	\$9.318B	\$12.237B	\$12.746B
<b>Contingency</b>	Allocated and Unallocated Contingency	\$2.653B	\$1.729B	\$2.878B	\$3.119B <sup>1</sup>
<b>Schedule</b>	Revenue Service Date	June 21, 2034	March 1, 2033	October 22, 2036	February 28, 2039 <sup>2</sup>
<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 <sup>3</sup>	\$917.0		9.3%	
<b>Planned Value to Date</b>	Estimated value of work planned to date	N/A		N/A	
<b>Actual Value to Date</b>	Actual value of work completed to date	N/A		N/A	
<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	\$1,218		N/A	
<b>Construction Contracts Awarded</b>	Value of construction contracts awarded: % of total construction value to be awarded	0		0	
<b>Physical Construction Completed</b>	Value of physical construction (infrastructure) completed: % of total construction value completed	0		0	
<b>Rolling Stock Vehicle Status</b>	<b>Date Awarded</b>	<b>No. Ordered</b>		<b>No. Delivered</b>	
<b>Heavy Rail Vehicles</b>	N/A	48 (planned)		0	

<sup>1</sup> Includes \$1.657 of Unallocated Contingency.

<sup>2</sup> Recommended Revenue Service Date of February 28, 2039, based on the use of 125% of the remaining critical path Stripped and Adjusted Base Schedule (SABS) duration.

<sup>3</sup> Includes standard cost categories (SCC) 10, 40, 60 and 80 expenditures in Project Development, reported through March 31, 2024, based on accruals.

## **2. PMOC Observations and Findings**

### **A. Summary of Monitoring Activities**

The PMOC oversight commenced in July 2020. PMOC has since received documents and coordinated with VTA via email and telephone conversations. *This report covers project status and documents received through April 30, 2024 (and including the March 2024 monthly progress reporting received April 30, 2024). The monthly PMOC oversight call was conducted on May 9, 2024, discussion at which covered those documents received in April 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. Risk review results advised an increase in costs to \$12.746B 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.

VTA adopted the results of January 2024 Risk review and formally requested FTA's approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B and a Revenue Service Date (RSD) of February 2039.



## 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
Risk and Contingency Management Plan (RCMP)	B	September 14, 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.

*On March 29, 2024, along with the application to enter the New Starts Engineering Phase, VTA submitted revised PMPs and sub-Plans. The PMOC current assessment of the PMP and sub-Plans is based on the PMP and Sub-Plans submissions from November 2023 and December 2023 and only includes significant changes from the revised PMPs and sub-Plans that were submitted on March 29, 2024.*

### **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), the MM/W joint venture General Engineering Consultant (GEC) and the Bechtel Infrastructure Corporation Construction Management Services (CMS). The PMT, the GEC, and the CMS include professional resources providing program management and multiple specialized engineering and construction management services.

*At the May 9, 2024, monthly meeting, VTA presented the VTA's BART Silicon Valley Phase II Extension Program Organization and provided the following updates:*

- *Actively recruiting for the VTA Construction Director position and anticipate completing the recruitment by July 1, 2024.*
- *Planning to extend the Program Management Services Contract until the end of calendar year 2024.*
- *Anticipate releasing a Request for Proposal for PMT services during Q3 2024.*

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

FTA signed the BSVII Record of Decision (ROD) in June 2018. BSVII project staff converted the Mitigation Monitoring and Reporting Program (MMRP) from the ROD into a new format for tracking 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.

At the May 9, 2024, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:

- NEPA Re-evaluation approved March 2024
- Finalizing CEQA document
- Ongoing preparation of the quarterly Environmental Commitments Record (ECR)
- Ongoing review of KST Submittals to ensure consistency with Environmental Requirements

**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).

<b>Package Number</b>	<b>Construction Contract Package Name</b>	<b>2022 Delivery Method</b>
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.

<b>Construction Contract Package Name</b>	<b>2023 Delivery Method</b>
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 May 9, 2024, monthly meeting VTA reported that they are on-boarding a core group of the Construction Management Services (CMS) using a 60 days workplan. An annual workplan will be prepared to staff up the CMS for the following year.*

## **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 May 9, 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% complete design pending – VTA reviewing portion.*
  - *APDU 3C - West Portal design-Wall SOE Rev. 1 - 100% Design reviewed, comment resolution complete.*
  - *APDU 3D – West Portal Caterpillar SOE Final Design Rev. 1 – 100% Design reviewed, – comment resolution complete.*
  - *APDU 5A - DTSJ Chase building demolition, civil & Maintenance of Traffic (MOT) packages – 100% Design reviewed – comment resolution complete.*
  - *APDU 8B – Over the Shoulder (OTS) review of 85% Design complete, comment resolution following progress.*
  - *APDU 11B – West portal Temporary Power High Voltage Sub-station 85% Design - 85% design submittal received, VTA review in progress.*
  - *APDU 12A – Diridon Station Enabling Works and Utilities – Comment resolution on 100% complete.*
  - *APDU 14 – 28th Street Station Enabling Works – Comment resolution on 100% complete.*
  - *APDU 20 – Track and Tunnel Alignment– Comment resolution on 100% complete.*
    - *D10 – Bored Tunnel Design –85% Design submittal received, VTA review in progress.*
    - *D15 – Tunnel Internal Structures - 85% Design – submittal to VTA pending.*
    - *D20 – Track and Tunnel - 60% Design review complete, comment resolution in progress.*

- *D25 – Diridon Station Design –60% Design review complete, comment resolution complete.*
- *D30 – Downtown San José Station - 60% Design – submittal to VTA pending.*
- *D35 – 28<sup>th</sup> Street / Little Portugal Station - 60% Design complete, comment resolution in progress.*
- *D40 – East Portal Design - 60% Design complete, comment resolution in progress.*
- *D45 – West Portal Design – 60% Design review complete, comment resolution complete.*

**Program-wide, Facilities and Systems Engineering**

*At the May 9, 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>57%</i>	<i>55%</i>	<i>58%</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 May 9, 2024, monthly meeting VTA presented a high-level summary, as of March 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
<b>SUMMARY OF REQUIRED TAKES</b>											
Total Parcels: 75 *	77	26	51	16	7	10	0	1	17	38	10
Type of Take: Quantity											
BPE ** & Other Takes:	5		5	1		2				2	3
Full Fee:	8	7	1	1						15	10
Other Multiple Takes (Easement/Fee):	4		4	1					3	16	
Tunnel Easement:	46	19	27	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 May 9, 2024, monthly meeting VTA reported the following progress as of March 2024 (75 active parcels):*

- *Legal/Plats Approved: 78%*
- *Appraisals Completed: 77%*
- *Offers made: 77%*
- *Purchase Agreements Signed: 34%*

*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 May 9, 2024, meeting:*

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

## **I. Public Involvement/Outreach/Communications**

*At the May 9, 2024, monthly meeting, VTA provided the following Public Involvement/Outreach/Communications updates:*

- ***Public and Stakeholder Meetings and Presentations***
  - *West Portal Early Construction Coordination meetings with stakeholders*
  - *Community Working Group Series May 14 - 16*
  - *28th Street/Little Portugal Community Meeting (week of May 27)*
  - *4<sup>th</sup> Advocacy Breakfast (May)*
  - *Design Review Committee Meetings for 3 San Jose Stations (Summer)*
  - *Diridon Technical Taskforce (May – June)*
  - *Downtown/Diridon Construction Transportation Management Plan – City & Stakeholder Engagement Kickoff (June – July)*
  - *Third Party 60% Design Review (June)*
- ***Communications and Public Relations***
  - *TBM Naming Selection*
  - *Groundbreaking Event June 14*
  - *Business Resource Program Launch (Summer 2024)*
- ***Tabling Events***
  - *4<sup>th</sup> Annual Santa Clara PowWow 5/4, Dia de Portugal Festival 6/8, VTA’s EBRC Project groundbreaking and Community Resource Fair Celebration 6/8*

## **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 May 9, 2024, monthly meeting, VTA provided the following Third-Party Agreements updates:*

- *Received Valley Water’s letter confirming their preference to use its permit process for tunnel crossings under its facilities in lieu of a Cost Reimbursement Agreement.*
- Updated the Third-Party Agreements based on new baseline and recategorized the Critical / Non-Critical
  - Future BART Implementation Letters will be monitored and added when identified
  - Deleted SJWC relocations at Stockton Ave. and 13th St. due to elimination of MTF
- The total number of Third-Party Agreements is now 43
- Critical Agreements prior to FFGA: 31
  - 30 Executed, and 1 Open
  - The open critical agreement (UPRR Final Engineering Agreement for CP2 Work) is anticipated to be executed by July 19, 2024, with a Need by Date of August 14, 2024
- Critical Agreements post FFGA (Construction): 4 (BART IL, UPRR C&M, SJWC (2))
- Critical Agreements post FFGA (Operations): 5 (BART, JPB, CT, CSJ, CSC)

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**

<b>Utility Type</b>	<b>Planned Relocations<sup>1</sup></b>
Communications	30
Electrical	9
Gas	6
Sanitary Sewer	6
Storm Drain	7
Water	7
<b>Total Relocations</b>	<b>65</b>

<sup>1</sup> Utilities to be protected in place are not included in this summary.

**Summary of Utility Relocation Design and Construction Progress**

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

During the May 9, 2024, monthly meeting VTA reported the following:

- *West Portal:*
  - *PG&E 115kV interconnection Construction started April 30, 2024*
  - *Cogent/Sprint relocation design review complete – awaiting final design package*
- *Diridon West Vent Shaft:*
  - *AT&T relocations design complete – Construction Notice to Owner (NTO) executed*
  - *SJWC construction in progress*
- *Downtown Station:*
  - *PG&E gas and Electrical relocations to begin mid-May*
  - *AT&T preliminary design in-review*

- *East Portal:*
  - *KST finalizing the utility relocation alignments for Sewer, Storm Water, PG&E gas and Electric at East Portal*

## **K. Construction**

*During the May 9, 2024, monthly meeting VTA reported the following early works procurement / negotiations activities and status of progress:*

- *Early Works Package Negotiations:*
  - *EWP 2A – Precast Final lining, Material & Plant Procurement: negotiations ongoing.*
  - *EWP 3A – West Portal Initial Sitework: NTP issued February 2024, construction started April 2024.*
  - *EWP 3B – West Portal Sitework (Phase 2): negotiations ongoing.*
  - *EWP 3C – West Portal TBM Launch Structure: negotiations completion, amendment to be executed May 2024.*
  - *EWP 7A – West Portal Instrumentation & Monitoring: NTP issued February 2024, installations in May 2024.*
  - *EWP 9A – TBM Tunnel Support Equipment: negotiations ongoing.*
  - *EWP 11A – West Portal TBM and Plant Power: NTP issued February 2024, KST initiating procurement.*
  - *EMP 11B – West Portal TBM and Plant Power Phase 2: Contract Amendment complete.*
- *Construction – West Portal:*
  - *Preconstruction meeting held April 2024.*
  - *Met with Earthquakes and the cities of San Jose and Santa Clara to discuss construction activities.*
  - *Construction mobilization late April 2024.*
  - *Started weekly construction meeting with KST.*
  - *Continuing coordination with Caltrain and UPRR for the installation of existing track instrumentation and monitoring devices.*
  - *Developing site specific work plans for initial construction activities.*
  - *Updating VTA policies and procedures for construction – Construction Completion Procedure and Construction Inspection Procedures.*
  - *Reviewing Construction Submittals (SWPPP for early works).*
  - *Completed preconstruction survey of existing facilities, including pavement condition assessment.*

- Construction – Facilities–Downtown San José, Diridon Station, 28thStreet/ Little Portugal:
  - Property protection assessment development ongoing.
  - Developing Enabling Works packages for the station facilities.
  - Performing additional geotechnical investigation (borings) at Downtown and Diridon BOH locations.
  
- Construction – Project-wide:
  - KST developing Pre and Post Construction Property Survey plans.
  - Developing obstructions report/plan for existing structure foundation investigations along the tunnel alignment.

## **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 May 9, 2024, monthly meeting, VTA reported that, at the May 2, 2024, VTA Board meeting, the VTA Board of Directors authorized the General Manager/CEO to enter into an agreement with the San Francisco Bay Area Rapid Transit (BART) for the purchase of 48 revenue vehicles for the BSVII Extension Project through BART’s existing contract with Alstom (formerly Bombardier). The costs related to these revenue vehicles are estimated to total \$172,600,000.*

## **M. Project Cost**

VTA transmitted to FTA/PMOC on October 11, 2023, their new baseline cost estimate that included a total project budget of \$12.237B. The new baseline cost, with a status date of June 30, 2023, was developed reflecting the CP2 Stage 1 baseline, and the updated design-bid-build (DBB) contract packaging strategy for CP1, CP3 and CP4.

This new baseline cost estimate has been reviewed in accordance with FTA’s OP 33 Project Cost Review in coordination with the January 2024 Entry to Engineering risk assessment. The risk review resulted in P65 Forecast cost of \$12.746B that was accepted and adopted by VTA. VTA formally requested FTA’s approval to enter Engineering Phase in a letter dated March 29, 2024, with a total project cost of \$12.746B and a Revenue Service Date (RSD) of February 2039.

The BSVII project budget of \$12.746B supporting VTA’s March 29, 2024, request for FTA’s approval to enter Engineering is summarized below.

SCC	Title	Cost Estimate – YOE (in \$M)
10	Guideway & Track Elements	\$2,900
20	Stations, Stops, Terminals, Intermodal	\$2,037
30	Support Facilities: Yards, Shops, Admin. Buildings	\$352
40	Sitework & Special Conditions	\$582
50	Systems	\$1,409
<b>Construction Subtotal (10 – 50)</b>		<b>\$7,280</b>
60	ROW, Land, Existing Improvements	\$241
70	Vehicles (48)	\$205
80	Professional Services	\$2,973
<b>Subtotal (60 – 80)</b>		<b>\$3,419</b>
90	Unallocated Contingency	\$1,657
100	Finance Charges	\$390
<b>TOTAL (SCC 10-100)</b>		<b>\$12,746</b>

*VTA has reported expenditures through March 31, 2024, including accruals, which total \$917.0M. Project costs have been expended in SCC 10, SCC 40, SCC 60, and SCC 80. Project commitments include SCC 10, SCC 40, SCC 60, and SCC 80 and total \$1,218M through March 31, 2024.*

*At the During the May 9, 2024, monthly meeting VTA reported the following Budget / Cost updates for the March 2024 reporting period:*

- *New baseline cost estimate was implemented in March 2024 reflecting updated program costs that include FTA/PMOC risk assessment recommendations.*
- *No changes to budgets in current period.*
- *Budget updates / transfers in process to reflect executed CP2 amendments.*

**N. Project Schedule**

*VTA provided a March updated schedule with a data date of 01APR24. A full analysis was completed on this schedule.*

*VTA has stated “BSVII has a new Baseline schedule effective this period. The new baseline schedule was developed reflecting the CP2 Innovations, the approved Stage 1 baseline schedule from the CP2 Contractor with updates, and the updated design-bid-build (DBB) contract packaging strategy for CP1, CP3 and CP4; and incorporation of FTA’s recommendation of an*

extended RSD. This baseline schedule (data date of March 1, 2024) was submitted to FTA as part of VTA’s application to enter the New Starts Engineering Phase in Q1- 2024”

*VTA provided a milestone chart with the dates by quarter and year. The table includes the preliminary baseline forecast for reference and current month (New Baseline) forecast for each milestone. No dates moved for Contract 2 however there was movement on the other three contracts, CP1, CP3 and CP4. The milestone dates that have changed since the preliminary baseline forecast are as follows:*

<i>Milestone</i>	<i>Preliminary Baseline Forecast</i>	<i>New Baseline Forecast</i>
<b>CP1 - Systems</b>		
• CP1 RFP Issue	Q1 2027	Q1 2028
• CP1 NTP	Q2 2028	Q2 2029
<b>CP3 - Newhall Yard and Santa Clara Station</b>		
• CP3 RFP Issue	Q1 2026	Q1 2027
• CP3 NTP	Q1 2027	Q1 2028
<b>CP4 - Underground Stations</b>		
• CP4 RFP Issue	Q1 2026	Q4 2027
• CP4 NTP	Q1 2027	Q4 2028

The new VTA baseline schedule has a target Revenue Service Date (RSD) of Q2-2037. The preliminary risk assessment by PMOC indicated a projected RSD of February 2039, inclusive of FTA-assessed schedule contingency. VTA is adopting the FTA-recommended schedule contingency that indicates a Q1-2039 RSD while managing to the target RSD of Q2-2037.

*On the New Baseline VTA has adjusted the activities for the Revenue Ready Date. There is now an activity titled “VTA Target RSD” with a date of 12MAY37, and an activity titled “FFGA RSD” with a date of 28FEB39.*

VTA also noted that the critical path excluding the contingency and reserve includes the following items:

1. West Portal enabling work (CP2)
2. TBM Procurement: Assembly and testing (CP2)
3. Tunnel mining from West Portal to East Portal (CP2)
4. West Portal: Final concrete work and finishes (CP2)
5. West Portal: Train Control Building (CP2)
6. Newhall Yard: Systems installation (CP1)
7. Phase 2 testing by CP1 with BART oversight
8. BART OCC Validation / Testing

The near-critical items as of this update are:

1. CP2 – TBM procurement, fabrication, and delivery
2. TBM Plant temporary power at the West Portal

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

*The critical path on the overall schedule has a total float at 0. However, some of the activities on this path have loss time on this month's update. The one of the first activities on the critical path with 0 total float is the CP2 Santa Clara Station Enabling Works Utility Cap-off which started late and is indicating it will take longer to complete than was estimated. The other activity starting the critical path is CP2 Newhall Yard Enabling Works I&M Work Plans Permits. This activity is on time.*

*The longest path contains activities which are part of the Summary Schedule. Also contained within the longest path are the Project Contingency and the Project Reserve. These two activities equal 763 days.*

*It appears that the ROW schedule has a mix of Duration percent complete and Physical percent complete. With Physical percent default the percentage has to be manually entered and along with the actual finish date.*

*The Utility overall schedule has lost 831 days and is now indicating a finish date of 01JUL31 where before it had been 15MAR28. This loss is coming for the utility construction portion of the schedule and is being driven by the CP2 East Portal. All the start dates in this section but one has been moved out and they have start constraints on them.*

*The overall Third-Party schedule has lost 787 days. This loss is in the permit section of the schedule. Due to the changes the CPUC Approval of Safety Certification Verification Report now only has 21 days of total float.*

*For Contract Package 2, the 28<sup>th</sup> Street Utilities relocations activity lost 118 days and Diridon Utilities activity lost 79 days. There has been slippage on Enabling works for Newhall Yard, Santa Clara Station, Downtown San Jose East Ventilation Shaft, and South of Las Plumas. There has also been slippage on the construction for East Vent Shaft, 28<sup>th</sup> Street Headhouse, North Vent, And South of Las Plumas.*



## 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 indicated, as per CP2 contract requirements, the KST team is expected to include a risk register after the review of the Configuration Design submittal. The BSVII team will review KST's identified risks with BSVII disciplines, revise the Program Risk Register as appropriate and establish a joint VTA/KST CP2 Project Risk Register that will be reviewed with the KST team regularly. 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. The PMOC has proposed a few new risks related to geotechnical conditions, Buy America requirements, interface requirements associated with changing scope, Real Estate management plan, TBM productivity assumptions, agency capacity, timely decision with BART and external stakeholder impacts including potential delays from Board of Directors. VTA has incorporated the FTA/PMOC risk assessment results into their new baseline and request to Enter Engineering.*

***New Risk:*** *None for the period*

### ***Retired Risk:***

**BSV-191: CP2 PDB Stage 1 extended innovations concurrence process impact PDB cost and schedule.** *Per VTA, this risk pertains to the KST innovations report that was submitted in August 2022. KST has moved forward with innovations and incorporated them within the configuration design. Since then, both VTA and BART have reviewed the KST configuration design. All BART's comments on the KST Configuration Design have now been addressed, and KST has advanced design to 60% which has been issued to BART for concurrence. This risk is now marked for retirement as it is no longer applicable.*

*The PMOC acknowledges the retirement of this risk.*

*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 E for additional risk detail).*

VTA March, 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

*During the PMOC monthly meeting held May 9, 2024, VTA presented the following progress updates:*

- *Ongoing internal Risk Review meetings with Program, Project, Discipline Leads and key stakeholders.*
- *Forthcoming risk updates summarized as follows:*

Change	Risk	Notes
Retired	• BSV-139: Delays in fabrication and delivery of TBM	• Sufficient float on TBM fabrication and delivery. New risk added to address TBM storage in accordance with completion of West Portal Launch Facility
New	• BSV-213: CP2 optimizations has potential to redesign • BSV-214: Stakeholders' input resulting in Diridon Station design changes • BSV-215: Timing of FFGA execution • BSV-216: ROE permit delays • Instrumentation Monitoring NTP • BSV-217: TBM storage additional costs	• Various cost saving measures being evaluated currently; once finalized would result in additional design time and design cost • City requested Diridon Station BOH to be underground and providing connection to future Diridon Business Case, negating VE savings • VTA proposed timeline of FFGA execution perceived very aggressive, potential delays to FFGA beyond Dec 2024 may result in additional financing costs • Extended coordination with KST and JPB on Right of Entry (ROE) terms has the potential to delay instrumentation and monitoring early works
Change	• BSV-201: East Portal ROW acquisitions timeline • BSV-132: Program staffing capacity to support long timeline • BSV-208: CP2 design completeness/quality	• Reduced: ROW acquisition is progressing as planned; Previously this parcel acquisition was near critical path, now no longer viewed as high severity the revised baseline schedule allows sufficient float for this parcel. • Reduced: VTA hired Program Manager in April 2024, CM team also on board, risk of staffing capacity is therefore reduced • Reduced: Separated out optimizations as new risk, now this risk addresses primarily design quality/completeness which is low severity

## **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 May 9, 2024, monthly meeting VTA reported the following quality activities:*

- *Contract Package-2 KST*
  - *Closed two Corrective Action Requests (CARs) based on satisfactory KST response*
  - *Completed review of KST Project Wide Procurement Procedure, Earthwork Test Program Plan, Quality Assurance Plan and Quality Standard Operating Procedures (SOPs)*
- *General Engineering Consultant (GEC)*
  - *Closed out review of the Design Quality Management Plan (DQMP) with formal transmittal of notification of No Exceptions Taken (NET) to DQMP Rev. 4*
- *BSVII Program*
  - *Delivered Quality Program training to staff joining the Program Management Team*

## **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 May 9, 2024, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:*

- *Safety and Security Review Committee (SSRC):*
  - *The May 21, 2024, SSRC meeting is being planned and will include an update of CP2 Certification status.*
- *A Fire Life Safety and Security Committee Meeting was held April 16, 2024*
  - *There was an introduction to issues related to standpipes in the tunnel and at the portals. A small group follow up meeting is planned for May 6<sup>th</sup>*
  - *We also had a scenario discussion around a trespasser in the tunnel. This the first of a series of mini-tabletop discussions to explore potential issues in the tunnel that might require first responder involvement.*

## **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 May 9, 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 May 9, 2024, monthly meeting.*

## U. Action Items Table

Item		Responsible Party	Date			Status / Action Required
No.	Description		Identified	Due	Complete	
155	Notify PMOC when EWP's are executed	VTA	2/8/2024	3/1/2024		<b><i>In-Progress</i></b> 3/7/2024 – VTA notified PMOC about execution of EWP's 3A, 7A, & 11A
158	<i>Provide update on parcels that have not yet entered acquisition steps (pending design decisions)</i>	VTA	3/14/2024	3/29/2024	5/9/2024	<b><i>Closed</i></b>
159	<i>Focus Meeting (VTA/FTA/PMOC) regarding the Third-Party Agreements as they relate to OP 39 &amp; 51</i>	PMOC	4/11/2024	4/19/2024	4/15/2024	<b><i>Closed</i></b>
160	<i>VTA to provide UPRR and JPB agreements impacts on EWP's</i>	VTA	4/11/2024	5/9/2024		<b><i>Open</i></b>
161	<i>Share a list of obstructions along the tunnel alignment</i>	VTA	4/11/2024	5/9/2024	4/26/2024	<b><i>Closed</i></b>
162	<i>Provide PMOC with Valley Water's letter confirming their preference to use its permit process</i>	VTA	5/9/2024	6/13/2024		<b><i>New</i></b>

### **3. Project Monitoring Report Attachments**

Attachment A. List of Acronyms

Attachment B. Monthly Meeting Agenda

Attachment C. Monthly Meeting Attendees

Attachment D. List of Documents Received

Attachment E. VTA Top 10 Project Risks

Attachment G. Project Milestones/Key Events

Attachment H. Project Map

## A. List of Acronyms

ADA	Americans with Disabilities Act
BART	Bay Area Rapid Transit
BSVII	BART Silicon Valley Phase II
CBTC	Communications Based Train Control
CIG	Capital Investment Grants
CPUC	California Public Utilities Commission
CSC	City of Santa Clara
CSJ	City of San José
DCM	Design Criteria Manual
EVS	Emergency Ventilation Structure
EPD	Expedited Project Delivery
FLSS	Fire, Life, Safety and Security
FTA	Federal Transit Administration
LS	Lump Sum
MCCP	Management Capacity and Capability Plan
NDA	Non-disclosure Agreement
NEPA	National Environmental Policy Act
NOFO	Notice of Funding Opportunity
OP	Oversight Procedure
PDB	Progressive Design Build
PMOC	Project Management Oversight Contractor
PMP	Project Management 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
SCC	Standard Cost Categories
SOQ	Statement of Qualifications
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
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, May 9, 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.* June 13, 2024, 10:00am (Pacific)
  - b.* July 11, 2024, 10:00am (Pacific)

### C. Monthly Meeting Attendees

Organization	Name	E-mail
FTA Region IX	Susan Ko	<a href="mailto:susan.ko@dot.gov">susan.ko@dot.gov</a>
FTA	Tahir Khattak	<a href="mailto:m.khattak@dot.gov">m.khattak@dot.gov</a>
VTA	Afshin Abtahi	<a href="mailto:aabtahi@vtabsv.com">aabtahi@vtabsv.com</a>
VTA	Bernice Alaniz	<a href="mailto:bernice.alaniz@vta.org">bernice.alaniz@vta.org</a>
VTA	Khair Amini	<a href="mailto:KhairMohammad.Amini@vta.org">KhairMohammad.Amini@vta.org</a>
VTA	Kannu Balan	<a href="mailto:kbalan@vtabsv.com">kbalan@vtabsv.com</a>
VTA	Monica Born	<a href="mailto:mborn@vtabsv.com">mborn@vtabsv.com</a>
VTA	Chris DuVilla	<a href="mailto:cduvilla@vtabsv.com">cduvilla@vtabsv.com</a>
VTA	Rosemarrie Gonzalez	<a href="mailto:rosemarrie.gonzalez@vta.org">rosemarrie.gonzalez@vta.org</a>
VTA	Kevin Kurimoto	<a href="mailto:kevin.kurimoto@vta.org">kevin.kurimoto@vta.org</a>
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VTA	Ronak Naik	<a href="mailto:ronak.naik@vta.org">ronak.naik@vta.org</a>
VTA	Rob Ostermiller	<a href="mailto:rostermiller@vtabsv.com">rostermiller@vtabsv.com</a>
BART	Ni Lee	<a href="mailto:nlee@bart.gov">nlee@bart.gov</a>
CPUC	Daniel Kwok	<a href="mailto:daniel.kwok@cpuc.ca.gov">daniel.kwok@cpuc.ca.gov</a>
BKF	Andrew Michel	<a href="mailto:AMichel@BKF.com">AMichel@BKF.com</a>
HNTB	Suresh Kataria	<a href="mailto:skataria@hntb.com">skataria@hntb.com</a>
HNTB	Chuck Morganson	<a href="mailto:cmorganson@hntb.com">cmorganson@hntb.com</a>
WSP	Lurae Stuart	<a href="mailto:lurae.stuart@wsp.com">lurae.stuart@wsp.com</a>
PMOC	Emile Jilwan	<a href="mailto:emile.jilwan@atkinsrealis.com">emile.jilwan@atkinsrealis.com</a>
PMOC	Kyle Knudson	<a href="mailto:kyle.knudson@atkinsrealis.com">kyle.knudson@atkinsrealis.com</a>
PMOC	Laurel Espenlaub	<a href="mailto:laurel.espenlaub@atkinsrealis.com">laurel.espenlaub@atkinsrealis.com</a>
PMOC	Beth Sprague	<a href="mailto:beth.sprague@atkinsrealis.com">beth.sprague@atkinsrealis.com</a>
PMOC	Frank Ward	<a href="mailto:fward@dovetailconsulting.net">fward@dovetailconsulting.net</a>

**D. List of Documents Received**

<b>Document</b>	<b>Received</b>
<i>BSVII Monthly Progress Report February 2024</i>	<i>4/2/2024</i>
<i>Appendix A VTA BSVII Detailed Schedule February 2024</i>	<i>4/2/2024</i>
<i>VTA BSVII MPS February 2024</i>	<i>4/2/2024</i>
<i>Third Party Agreement Tracking 2.19.24</i>	<i>4/2/2024</i>
<i>BSVII Project Risk Register FEB-2024 Clean Draft 03-01-2024</i>	<i>4/2/2024</i>
<i>Third Party Agreement Tracking 2.19.24</i>	<i>4/3/2024</i>
<i>2019_0926 Valley Water Minutes</i>	<i>4/3/2024</i>
<i>2024-04-CA-BSVII OP25-ProjectMonitoringReport_Draft-VTA_Review</i>	<i>4/29/2024</i>

## E. 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	<ol style="list-style-type: none"> <li>Following input from constructability review workshop, KST to finalize design of EWP 3C (SOE) construction.</li> <li>Develop documentation for VTA Board approval on EWP 3C Budgets.</li> <li>Explore option to have partial NTP for KST sub-contractor to start submittals, shop drawings and procurement long lead items prior to start of Caterpillar Shaft construction. Incorporate partial NTP into the schedule to evaluate time savings / critical path.</li> </ol>
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	<ol style="list-style-type: none"> <li>Implement the approved VE and realize savings as part of 60% design estimate.</li> </ol>
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	<ol style="list-style-type: none"> <li>Obtain access (PTE) to perform structural inspection on historic, sensitive structures and utilities.</li> <li>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.</li> </ol>
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	<ol style="list-style-type: none"> <li>Update financial plan following agreement with FTA on BSVII Program Budget.</li> <li>Identify secondary mitigation and review with BART as applicable.</li> </ol>
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	<ol style="list-style-type: none"> <li>Continue to monitor economic trends.</li> <li>Continue project public outreach efforts.</li> </ol>
BSV-096	Testing and Commissioning delays due to various factors	Testing and commissioning delays due to: <ul style="list-style-type: none"> <li>- Insufficient time allocated to the schedule for testing activities.</li> <li>- Unanticipated systems integration/interface issues.</li> <li>- Inadequate installation verification and QA/QC processes implemented.</li> <li>- Failed testing of equipment and/or testing parts requiring major rework.</li> <li>- Improper handoff from other CPs to systems contractor.</li> </ul>	12	<ol style="list-style-type: none"> <li>Develop detailed resources loaded schedule for system's testing, commissioning and training activities.</li> <li>Rigorous implementation of lessons learned including integrating BART's Operations (Maintenance and Engineering) team into the design, construction and testing phases of the program.</li> <li>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.</li> <li>Introduce the Rail Acceptance Officer early on during the testing phase.</li> <li>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.</li> <li>VTA, BART and other stakeholders jointly develop all technical, operational and maintenance requirements for the rail systems, and fixed facility systems.</li> <li>Develop detailed SOW services for installation verification and QA/QC within procurement contracts.</li> <li>VTA and its representatives responsible for defining testing, turnover and acceptance for their integrated testing and pre-revenue demonstration in support of passenger service.</li> </ol>

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 60% 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. 8. Explore splitting ROW parcel acquisition to allow utility relocation in advance of full parcel acquisition.

Source: BSVII Monthly Progress Report March 2024

## F. Project Milestones/Key Events

Milestone	Planned Date
<b>General Key Milestones</b>	
Contract Package 1_Systems Design Bid Ready & Review	9-Mar-28
Contract Package 3_Newhall Yard and Santa Clara Station Design Bid Ready & Review	22-Jan-27
Contract Package 4_Stations and Support Facilities Design Bid Ready & Review	5-Oct-27
VTA Target Start of Revenue Service	12-May-37
FTA Target Start of Revenue Service	28-Feb-39
<b>Construction Contracts Key Milestones</b>	
<b>Contract Package 1_Systems</b>	
Contract Package 1 NTP Systems	18-Apr-29
Track Testing Completion	16-Oct-34
Systems Testing Completion Turn Over to BART	9-Nov-35
<b>Contract Package 2_Tunnel and Trackwork</b>	
Order TBM	<b>31-Oct-23</b>
Contract Package 2 NTP2 Tunnel & Trackwork	6-Jan-25
Deliver TBM	21-May-26
Start of Tunneling	6-Nov-26
Start of Trackwork	1-Nov-29
<b>Contract Package 3_Newhall Yard and Santa Clara Station</b>	
Contract Package 3 NTP Newhall Yard and Santa Clara Station and Parking Garage	3-Feb-28
Santa Clara Station Fit-Out Completion	4-Feb-32
Santa Clara Station Parking Garage Construction Completion	18-Dec-31
Newhall Yard Trackwork Completion	22-Jul-33
<b>Contract Package 4_Stations</b>	
Contract Package 4 NTP Stations and Support Facilities	18-Dec-28
Diridon Station Fit-Out Completion	12-Dec-33
DTSJ Station Fit-Out Completion	19-Aug-33
28th Street Station Fit-Out Completion	26-Aug-33
28th Street Station Parking Garage Construction Completion	5-Dec-33

Source: VTA's BART Silicon Valley Phase II Extension Project Basis of Schedule, New Starts Entry to Engineering Revision 0, March 25, 2024

## G. Project Map

