

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 January 31, 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 two key VTA BSVII positions (Program Director and Construction Director) are currently vacant and that VTA may have difficulties filling these key positions 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		\$845.6	9.1%	
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		\$1,146	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.

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).

⁶ Includes standard cost categories (SCC) 10, 40, 60 and 80 expenditures in Project Development, reported through December 31, 2023, 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.

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 January 31, 2024 (and including the December 2023 monthly progress reporting received February 2, 2024). The monthly PMOC oversight call was conducted on February 08, 2024, discussion at which covered those documents received in January 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 in October of 2036.

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
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.

PMOC will be reviewing the new submissions from November 2023 and December 2023 and will provide 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.

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
<i>Project Management Plan (PMP)</i>	<i>2</i>	<i>December 15, 2023</i>
<i>Management Capacity and Capability Plan (MCCP)</i>	<i>2</i>	<i>December 15, 2023</i>
<i>Safety and Security Management Plan (SSMP)</i>	<i>0.D</i>	<i>December 8, 2023</i>
<i>Real Estate Acquisition Management Plan (RAMP)</i>	<i>0.C</i>	<i>December 8, 2023</i>
<i>Quality Management Plan (QMP)</i>	<i>2</i>	<i>November 1, 2023</i>
<i>VTA 2023 Bus Fleet Management Plan (BFMP)</i>	<i>1.0</i>	<i>November 2023</i>
<i>Third-Party Agreement Management Plan (TAMP)</i>	<i>1.0</i>	<i>November 1, 2023</i>
<i>Project Delivery and Procurement Plan</i>	<i>0.G</i>	<i>November 1, 2023</i>

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 is added with direct coordination with the General Engineering Services (GEC).*
- *At the February 08, 2024, monthly meeting, VTA indicated they are actively recruiting for the VTA Program Director and the VTA Construction Director positions currently vacant. PMOC notes that due to the limited time between VTA's submittal of the MCCP on December 10, 2023, unavailability of staff during the 2023 holidays and key BSVII vacancies that are expected to be filled soon; only a limited number of BSVII key staff (VTA, Consultants, and BART) were interviewed on January 9, 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 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 February 08, 2024, monthly meeting VTA reiterated that they are targeting the end of the year 2023 for FTA's approval of the NEPA re-evaluation.

At the February 08, 2024, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:

- *Review of KST Submittals to ensure consistency with Environmental Requirements*
- *Q4 2023 Environmental Compliance Record was finalized and posted on VTA's website*
- *Coordinating with KST re: Archaeological Testing Program*
- *Preparation of NEPA/CEQA document and technical reports underway*

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 Qualification 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 cancelled March 1, 2022.
Request for Proposals	Pre-Final	4/15/22	7/19/21	5/20/22	
	Final	RFP was cancelled December 31, 2022.	9/24/21	RFP was cancelled December 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, not just CP2 as previously reported. *At the February 08, 2024, monthly meeting VTA reported that that they identified their selected CM Services consultant and award is anticipated Q2 2024.*

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 February 08, 2024, monthly meeting, VTA noted the following progress:*

- *Advance Partial Design Units (APDU):*
 - *APDU 2 Pre-Cast tunnel liner 85% design submittal (with reinforcement) – KST incorporating VTA comments.*
 - *APDU 3C - West Portal TBM launch structure SOE (Support of Excavation) and 3E ground improvement design - in VTA review.*
 - *APDU 3D – West Portal Caterpillar SOE Final Design – KST incorporating VTA comments.*
 - *APDU 5A - DTSJ Chase building demolition, civil & Maintenance of Traffic (MOT) packages – in VTA review.*
 - *APDU 8B – East Portal Enabling Works – Expected end of February 2024.*
 - *APDU 11B – West portal Temporary Power High Voltage Sub-station 85% design - Expected mid-February 2024.*
 - *APDU 12A – Diridon Station Enabling Works and Utilities 100% - KST incorporating VTA comments.*
 - *APDU 14 – 28th Street Station Enabling Works 100% - KST incorporating VTA comments.*
 - *APDU 20 – Track and Tunnel Alignment 100% design – KST incorporating VTA comments.*
- *4 of 9 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 complete.*
 - *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 in Progress.*
 - *D40 – East Portal Design - 60% Design – VTA Review in Progress.*

Program-wide, Facilities and Systems Engineering – At the February 08, 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>43%</i>	<i>35%</i>	<i>41%</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 February 08, 2024, monthly meeting VTA presented a high-level summary, as of December 2023, 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	16	7	9	1	1	16	38	10
Type of Take: Quantity											
BPE ** & Other Takes: 4	4	0	4	1		1			2	2	0
Full Fee: 7	7	5	2	1					1	19	10
Other Multiple Takes (Easement/Fee): 5	5	1	4	1		1			2	14	0
Tunnel Easement: 44	44	18	26	13	6	2	1	1	3	0	0
Roadway Easement: 3	3	0	3						3	0	0
Utility Easement: 4	4	0	4						4	0	0
Temporary Construction Easement: 8	8	1	7		1	5			1	3	0

* 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 February 08, 2024, monthly meeting VTA reported the following progress as of December 2023 (75 active parcels):

- *Legal/Plats Approved: 79%*
- *Appraisals Completed: 77%*
- *Offers made: 77%*
- *Purchase Agreements Signed: 33%*

The following are sixteen additional parcels pending legals and plats that are not considered “active” parcels in the acquisition process:

- *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 February 08, 2023, monthly meeting, VTA provided the following Public Involvement/Outreach/Communications updates:

- ***Public and Stakeholder Meetings and Presentations***
 - *February 6 – 8 – Community Working Groups Meeting Series*
 - *February 8 – Business Resource Program Steering Committee Presentation*
 - *February 16 – Santa Clara Station Design Review Committee*
 - *February 29 – ASK VTA BART Phase II Overview*
 - *April 17 – July 19 – Design Review Committee Meetings for three other stations*
 - *May – Public meetings for CTMP 2*
- ***Communications and Public Relations***
 - *New BART Silicon Valley website*
 - *TBM Naming Contest*
 - *NTP for Early Works Blog*
- ***Events***
 - *West Portal Groundbreaking*

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 February 08, 2024, monthly meeting, VTA provided the following Third-Party Agreements updates:

- *The total number of Third-Party Agreements is reduced from 44 to 43 (San José Water Company relocation Notice to Owner at 13th St., a non-critical agreement, is 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 prior to required need by date (which is tied to EWP #3C West Portal TBM launch structure SOE start in 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	8	3
Diridon Station	7	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	5	0
Downtown San José Station	0	0
28 th Street / Little Portugal Station	3	0
East Portal	2	0
Sub Total	13	0
Total	45	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 conformed 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 February 08, 2024, monthly meeting VTA reported the following:

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

- Cogent relocation layout design review is ongoing
- *Diridon West Vent Shaft:*
 - AT&T relocations design by Utility owner on-going
 - PG&E electrical design by Utility owner on-going
- *East Portal:*
 - KST finalizing the utility relocation alignments for Sewer, Water, PG&E gas and Electric at East Portal

K. Construction

During the February 08, 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: negotiations completed. NTP target date early February.*
 - *EWP 3B – West Portal Sitework (Phase 2): negotiations ongoing.*
 - *EWP 3C – West Portal TBM Launch Structure: negotiations ongoing.*
 - *EWP 7A – West Portal Instrumentation & Monitoring: negotiations completed, NTP target date early February.*
 - *EWP 9A – TBM Tunnel Support Equipment: negotiations ongoing.*
 - *EWP 11A – West Portal TBM and Plant Power: negotiations completed, NTP target date early February.*
- *Construction – West Portal:*
 - *West Portal early works initial sitework start pending VTA executing Amendment and issuing NTP.*
 - *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*
 - *Working toward project mobilization*
- *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. Report received in December is under review.*
 - *Developing Enabling Works packages for the station facilities.*

- Project-wide:
 - *KST developing Pre and Post Construction Property Survey plans.*
 - *Developing obstructions report/plan for existing structure foundation investigations.*
- Diridon Station Temporary Parking. Contract V22160:
 - *Outside parking lot striping on going*
 - *Buildout structural inspection approved to close in walls*
 - *Walls for the rooms and offices built and painted*
 - *Interior garage parking striping completed*
 - *Camera Install complete*
 - *UPS transformer and Fire alarm install complete*

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.*

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 December 31, 2023, including accruals, which total \$845.6M. 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 \$1,178M through December 31, 2023.

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 BOD 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 provided an updated schedule with status through the end of December, data dated 01JAN24, as part of their monthly reporting. A detailed analysis will resume when a revised baseline is adopted for entry to engineering. Until that baseline is adopted VTA is updating the preliminary baseline schedule.

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 also provided which list “Major changes to the schedule since last update”, “Major milestones missed since the last update”, “Critical path summary” and “Major events forecasted for next reporting period”.

Under Major changes to the schedule since last update would be the movement of “Revenue Service” to 31DEC36. VTA also reported some ROW slippage and Utility Owner slippage, neither of which impacted the critical path. The start of Vehicles Procurement activity was moved to April 30, 2024, to coincide with the price-hold decision required between BART and the vehicle manufacturer.

The West Portal Enabling work NTP has slipped for 01DEC23 to 01FEB24. This was noted as a missed milestone.

The critical path has remained through essentially the same activities, however with the delay in West Portal enabling work procurement, the critical path was extended. RSD shifted from November 24, 2036, to December 31, 2036.

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

A soundness/health check on the provided schedules was performed. PMOC identified the following:

- *There are activities with duplicate activity descriptions, so it is impossible to tell which of the contracts the activity is referencing.*
- *There are activities with predecessors but no start relationships.*
- *There are activities without finish relationships.*
- *There are task activities with zero (0) durations. Task activities shall have durations greater than zero.*
- *There are activities with multiple logic relationships which are not SS & FF pairs. Two activities that share more than one relationship is highly unusual. When more than two relationships are used it is likely to be an error.*
- *There are non-overlapping lags which places a gap between work. Relationships should be reviewed to verify there is not a better predecessor that would allow the work to be continuous.*

VTA reported the Revenue Service Date as 22OCT36 on the new baseline schedule (data date 01AUG23). The November 2023 updated schedule (data dated 01DEC23), included a Revenue Service Date of 24NOV36. The latest December 2023 updated schedule (data date 01JAN2024) further shifted the Revenue Service Date to 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 is completing 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.*

New Risk:

BSV-211 – Opportunity for eliminating Downtown San Jose Station 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*

Per VTA, a new opportunity was added to account for potential cost savings resulting from the elimination of secondary headhouse at the Downtown San Jose Station.

The PMOC acknowledges the addition of this risk opportunity.

BSV-212 – Value Engineering implementation cost savings reduce overall program cost
Cause: Several Value Engineering concepts are identified that save capital cost and resolve some complicated interfaces.

- *Risk: Implementing VE concepts*
- *Impact: Reduction in capital costs*

Per VTA, A new opportunity was added to account for potential cost savings resulting from implementation of multiple value engineering proposals associated with program scope.

The PMOC acknowledges the addition of this risk opportunity.

Retired Risk: *None for the period*

Increased Risk:

BSV-152 – Truck traffic volume for disposal of muck from tunnel resulting in additional costs.

Per VTA, The Oct 2023 revised baseline 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. Therefore, cost impact reduced based on current estimate allocation for muck disposal. Schedule impact increased to reflect risk of reduced muck off-haul capacity.

The PMOC acknowledges this increased risk scoring.

BSV-138 - Design interfaces between GEC and KST leads to integration issues, errors and disputes. *Interdependency of CP2 PDB design with VTA GEC design with complex analysis/design interfaces has the potential for misalignment of design expectations, confusion over roles/ responsibilities, errors and omissions, poor integration of the various designs at contract interface points, and resultant impacts to construction cost/schedule including increased risk of claims.*

VTA did not provide comment for the increased risk score during their period reporting, but the PMOC acknowledges this increased risk scoring.

Reduced Risk:

BSV-139 – Delays in fabrication and delivery of TBM. *BSVII revised baseline schedule assumes TBM order with sufficient advance timeline to accommodate the 16.25-month duration for the TBM design, fabrication and delivery (including schedule contingency). The TBM amendment executed with HerrenKnecht outlines a 16-month duration for design, fabrication and delivery. Given the complexity associated with this specialized equipment as well as overall*

market conditions and disruptions, there is a risk of delay to the fabrication and delivery of the TBM.

Per VTA, VTA has executed the Early Works Package 1A through which CP2 contractor has now placed TBM procurement order. The risk severity was reduced to account for residual risk related to delays in fabrication and delivery of TBM against BSVII Baseline Schedule. The PMOC acknowledges this decreased risk scoring.

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 December, 2023 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-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
BSV-204	Delays in Temporary Power S&H construction and long-lead transformer procurement.	12

During the PMOC monthly meeting held February 08, 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.
- Continue review of key BSVII Program Risks with BART and FTA/PMOC members.

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 February 08, 2024, monthly meeting VTA reported the following quality activities:

- *CP2: Completed the Geotech lab audit on Cooper Laboratories*
- *CP2: Preparing audit checklist to include KST DQMP, Design Management & FTA Requirements*
- *CP2: Drafting audit checklist for CTS Laboratories*
- *CP1, CP3 & CP4: GEC working on responses to the design program audit and updating their DQMP.*

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 February 08, 2024, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:

- *BART and GEC comments related to the updated PHA and TVA are being reviewed and addressed.*
- *The next Fire-Life Safety and Security Committee Meeting is being planned with priority items evaluated for presentation.*
- *Field safety training materials have been developed for PMT staff going out into the field. GEC and KST staff will use their own field safety requirements.*
- *Confirmation meetings have been held with KST to confirm their hazard verification tracking matrix (HTVM) has been updated to address scope changes and any updates coming out of the workshops.*

- *Additional meetings are planned with the GEC and KST for early February to confirm the allocation of certifiable items for areas of shared/adjacent scope.*

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 February 08, 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.

No update was provided at the February 08, 2024, monthly meeting.

U. Action Items Table

Item		Responsible Party	Date			Status / Action Required
No.	Description		Identified	Due	Complete	
133	Confirm Baseline regarding Tunnel Excavated Materials	VTA	5/11/2023	6/8/2023	1/12/2024	Closed
144	Set breakout meeting for Salt Ponds discussion and resolution of Action Item #133	VTA	10/12/2023	10/31/2023	1/12/2024	Closed – meeting held 1/11/2024; materials provided 1/12/2024
149	Provide list of DCM amendments included in Group 3 and Group 4, including status of development and/or approval.	VTA	11/9/2023	11/30/2023	2/7/2024	Closed
150	Generate documentation supporting the change in scope for elimination of the Mid-Tunnel Facilities.	VTA	11/9/2023	12/31/2023	2/7/2024	Closed – FLSSC Mtg2 10/18/2023 minutes provided indicating no exception to the removal.
152	Provide timeline for CBTC Implementation between Warm Springs & Berryessa	VTA	12/14/2023	01/11/2024		Open
153	Provide detailed design completion prior to Risk Assessment workshop	VTA	12/14/2023	01/11/2024	1/20/2024	Closed – Design Maturity Memo provided 1/12/2024; APDU and DU status provided 1/20/2024
154	Provide Construction Management Services Procurement update	VTA	12/14/2023	1/11/2024	2/8/2024	Closed
155	Notify PMOC when EWP's are executed	VTA	2/8/2024	3/1/2024		New
156	Send notification email to FTA/PMOC with link to Q4 2023 MMRP update	VTA	2/8/2024	3/1/2024		New

3. Project Monitoring Report Attachments

Attachment A. List of Acronyms

Attachment B. Monthly Meeting Agenda – *not used this month.*

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, February 08, 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. March 14, 2024, 10:00am (Pacific)
 - b. April 11, 2024, 10:00am (Pacific)

C. List of Documents Received

Document	Received
<i>BSVII Muck Removal Overview</i>	<i>1/12/2024</i>
<i>Beneficial Resume – Project Description</i>	<i>1/12/2024</i>
<i>BSVII FTA-VTA Risk Workshop Day 1 Presentation</i>	<i>1/13/2024</i>
<i>BSVII FTA-VTA Risk Workshop Day 2 Presentation</i>	<i>1/13/2024</i>
<i>BSVII FTA-VTA Risk Workshop Day 3 Presentation</i>	<i>1/13/2024</i>
<i>BSVII Risk Workshop Participants List</i>	<i>1/13/2024</i>
<i>BSVII FTA Collaboration Directory</i>	<i>1/13/2024</i>
<i>BSVII Monthly Progress Report December 2023</i>	<i>2/2/2024</i>
<i>BSVII MPS December 2023 Updates (01-26-2024)</i>	<i>2/2/2024</i>
<i>BSVII MPS December 2023 Detailed Schedule</i>	<i>2/2/2024</i>
<i>Third party agreement tracking 12.29.23 update</i>	<i>2/2/2024</i>
<i>BSVII Project Risk Register DEC-2023</i>	<i>2/2/2024</i>

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 EWP. Risk: Longer time to design and construct West Portal facility Impact: Delays to launch of TBM operations	20	<ol style="list-style-type: none"> 1. Following input from constructability review workshop, KST to finalize design of EWP 3C (SOE) construction. 2. Develop documentation for VTA New-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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 7. Obtain access (PTE) to perform structural inspection on properties which are identified as Group A structures in the technical requirements - this will help contractor in expediting mitigation designs. 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	<ol style="list-style-type: none"> 2. Update the financial plan following completion of cost estimates and agreement with FTA on project cost. 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	<ol style="list-style-type: none"> 1. Perform an update of Market Saturation Study to include assessment of the post-COVID economic cycle as related to labor market. 2. Continue to monitor economic trends and impacts. 3. Continue the project public outreach efforts.
BSV-096	Testing and Commissioning delays due to various factors	Testing and commissioning delays due to: <ul style="list-style-type: none"> - 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	<ol style="list-style-type: none"> 1. BSVII Program Schedule include 28 months (incl. contingencies) for SIT and BART testing to reflect recent experiences and reviewed by BART stakeholders. 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.

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 personnel that include a second or an identified person that can take over for the individual that retires or leaves the project so that there are no gaps in the knowledge and effectiveness 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-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 current NSPD basis.	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 Aug 2025.
BSV-204	Delays in Temporary Power SNH construction and long-lead transformer procurement	Cause: Long-lead procurement of step-down transformer (from 115kV to 34.5kV) for TBM temporary power. Impact: Delays in construction of Substation Hameline (SNH) and power ready for PG&E drop-in.	12	2. Execute early works package #11 to avoid delay to TBM assembly. 3. Direct KST to expedite step-down transformer procurement.

Source: BSVII Monthly Progress Report December 2023

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

