

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

FTA Region IX

Status as of September 30, 2023

**PROJECT MONITORING REPORT**

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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 Jose BART Station through downtown San Jose 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 Jose Station, and Diridon Station) and one at grade (Santa Clara Station). BSVII also includes two parking garages, two mid-tunnel ventilation/emergency egress facilities 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 new baseline cost & schedule estimates required prior to the New Starts Entry to Engineering were submitted to FTA/PMOC on October 11, 2023. The project new baseline cost and schedule estimates subject to change following FTA's Risk Assessment and review is a total project cost of \$12.237B and a 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 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.

All major packages other than CP2 have been reconsidered for alternative package composition and means of procurement. VTA convened a Peer Review in November 2022 that evaluated the project delivery methods for all 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. *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 paused while value engineering and the new baseline development have been underway. One example of the project's experienced delay is the procurement of the Tunnel Boring Machine (TBM), which did not occur as was planned. The TBM is on or near the critical path as reported in recent months, so continued delays in the procurement of the TBM could result in additional delays to the Revenue Service Date.

VTA suspended monthly schedule and cost updates with the May 2023 period. PMOC understands the incongruities of reporting against the old schedule basis while developing the new baseline. Expenditure reporting was restored in VTA's July progress report in response to PMOC's prior request. PMOC recommends VTA reporting of contracted commitments also be restored and that the detailed Right of Way Status Report appendix be restored since they are not impacted by the new baseline effort.

Until such time as VTA reconfigures its contract implementation planning, updates schedule, cost, and risk assessment for the program, PMOC continues to be concerned that the project estimate is under-representing the total cost due in part to contingency, inflation, and an optimistic base schedule and risk profile. PMOC anticipates that VTA's risk assessment update and new baseline of the project cost and schedule to be completed in late October 2023 / early November 2023. They will be reviewed by PMOC in support of FTA's Entry to Engineering Risk Assessment and Readiness Review in the subsequent months.

**D. Table 1 Core Accountability Items**

		Original (Grant)	FTA Current P65 Forecast (EPD Letter of Intent)	VTA New Starts Basis (Sept 2022) <sup>7</sup>	PMOC Assessment of Current Forecast <sup>7</sup>
<b>Cost</b>	Capital Cost Estimate <sup>1</sup>	N/A	\$9.148B	\$9.318B	No change from LOI. Pending VTA project delivery re-packaging, new baseline, and risk refresh.
<b>Contingency</b>	Unallocated Contingency	N/A		\$875M <sup>2</sup>	
	Allocated Contingency	N/A		\$854M <sup>2</sup>	
	Total Contingency	N/A	\$2.653B <sup>3</sup>	\$1.729B <sup>2</sup>	
<b>Schedule</b>	Revenue Service Date	N/A	June 21, 2034 <sup>5</sup>	March 1, 2033 <sup>4</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>6</sup>		\$708.99	7.6%	
<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		\$969.91	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	
<b>Next Quarterly Review Meeting Date:</b>			TBD		

<sup>1</sup> FTA P65 Capital Costs include a sum of YOE \$389.72M in finance costs based on the EPD submission, whereas VTA New Starts Basis includes YOE \$564.95M in finance costs.

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

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

<sup>4</sup> VTA's New Starts Basis RSD was not supported with a detailed schedule submission, and the project baseline has yet to be revised to reflect the revised project delivery methodology.

<sup>5</sup> 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).

<sup>6</sup> Includes standard cost categories (SCC) 40, 60 and 80 expenditures in Project Development, reported through August 31, 2023, based on accruals. Percentage calculated based on New Starts Basis Total \$9.318B.

<sup>7</sup> 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 September 30, 2023. The monthly PMOC oversight call was conducted on October 12, 2023, discussion at which covered those documents received in September 2023.*

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 conditioned 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.

*Although it occurred after the reporting period, PMOC notes that on October 5, 2023, VTA staff presented the BSVII Cost and Schedule new baselines to the VTA Board of Directors as an Information Item, PMOC also notes that 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 the cost and schedule new baselines to FTA/PMOC on October 11, 2023. BSVII baseline cost and schedule estimates subject to change following FTA's Risk Assessment and review is a total project cost of \$12.237B and a 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:

<b>Document Title</b>	<b>Revision</b>	<b>Dated</b>
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 <sup>1</sup>
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 <sup>2</sup>
Project Delivery and Procurement Plan	0.F	April 16, 2021
Project Implementation Plan	C	September 30, 2020

<sup>1</sup> VTA submitted Revision 1 of the QMP dated July 26, 2022. PMOC deferred review until it was revised to include the revised project delivery scheme and management structure.

<sup>2</sup> VTA submitted Revision 1 of the Third-Party Agreement Management Plan dated September 1, 2022. PMOC deferred review until it was revised to include the revised project delivery scheme and management structure.

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:

<b>Document Title</b>	<b>Revision</b>	<b>Dated</b>
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



Document Title	Revision	Dated
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 reviewed 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.

**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 October 12, 2023. meeting VTA presented “VTA's BART Silicon Valley Phase II Extension Program Organization” draft chart reflecting an addition since the previous month of an Executive Secretary.*

*At the October 12, 2023, meeting VTA also presented “BART’s BSVII Extension Program Organization” draft chart with a new BART Deputy Project Director reporting to BART Project Director. Additional BART staff reporting to the BART Deputy Project Director were also identified in the organization chart.*

## **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 August 10, 2023, 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 October 12, 2023, monthly meeting, VTA reported the following NEPA / Environmental Mitigations Status:*

- *Historic Building Protection Program:*
  - *Reviewing KST's Impact Mitigation Plan for Hoefler Property, preparing for SHPO review.*
  - *Reviewing KST submittals for Instrumentation and Monitoring of Historic Properties.*
- *Archaeological Testing Program:*
  - *Diridon Station: data recovery effort planned for 2024.*
  - *Downtown San Jose Station: remaining testing planned for 2024.*
  - *East Tunnel Portal: testing planned for 2024.*
- *Preparation of NEPA/CEQA document and technical reports underway.*
- *Coordinating Value Engineering effort.*

*The BSVII Project 2023 Q2 MMRP Report was the latest reported to be posted on VTA's website.*

## **E. Project Delivery Method and Procurement**

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 has determined 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 and reference to the former contract packaging is temporarily included.

<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.

<b>Milestones</b>		<b>Contract Packages</b>			
		<b>CP1</b>	<b>CP2</b>	<b>CP3</b>	<b>CP4</b>
<b>Request for Qualifications</b>	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 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.

In November 2022, VTA convened the Contract Packaging and Delivery Peer Review to specifically 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.

*At the October 12, 2023, monthly meeting VTA reported 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, then anticipated oral interviews on*

December 11, 2023, and award in January 2024. The scope of the CM Services contract is the entire construction program, not just CP2 as previously reported.

## **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 October 12, 2023, monthly meeting, VTA noted the following progress:

- Advance Partial Design Unit (APDU) 2 Pre-Cast tunnel liner 85% design submittal (with reinforcement) - KST incorporating VTA comments.
- Advance Partial Design Units (APDU):
  - APDU 3A - West Portal initial sitework approved for construction (AFC) package signed and stamped by VTA.
  - APDU 3C - West Portal TBM launch structure SOE and 3E ground improvement - KST incorporating VTA comments.
  - APDU 3D – West Portal Caterpillar SOE Final Design – 100% in VTA review.
  - APDU 5A - DTSJ Chase building demolition, civil & maintenance of traffic (MOT) packages – VTA review complete.
  - APDU 20 – Track and Tunnel Alignment 100% design – in VTA review.
- Early Works Package Negotiations:
  - EWP 3A - West Portal initial sitework: negotiations expected complete by end of October.
  - EWP 1A / 2A - TBM procurement & segment molds: under final negotiation
  - EWP 7A - Instrumentation & monitoring: under final negotiation
- 4 of 9 total 60% design units received to-date:
  - D10 – Bored Tunnel Design – Basis of Design complete. 60% Design being reviewed by VTA.
  - D25 – Diridon Station Design – Basis of Design complete. 60% Design - VTA comments sent to KST.
  - D45 – West Portal Design – Basis of Design complete. 60% Design - VTA comments sent to KST.
  - D10 – Bored Tunnel Design - Basis of Design complete. 60% Design being reviewed by VTA.

**Program-wide, Facilities and Systems Engineering** – At the October 12, 2023, monthly meeting, VTA noted the following progress:

- Value Engineering:
  - 45 VE items approved by VTA.
  - 184 total items evaluated.
  - 118 items either retired or combined with other proposals.
  - 11 items already incorporated into design and estimate.
  - 10 items undergoing further review.
- Final VE report issued.
- BART engaged in review of items requiring a DCM modification.

- *Updating Preliminary Engineering design with approved VE items*
- *60% design advancing for systems, yard, and stations*

*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.*

## **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. No update has been received on this report or any of the proposals originated within it.

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.

*At the July 13, 2023, meeting VTA reported that a three-day facilitated Value Engineering (VE) workshop was held the week of June 19, 2023, and the report is in development. At the August 10, 2023, meeting VTA reported that Constructability reviews were held on July 20 and 21, 2023. VTA prepared key findings that will be discussed with KST in breakout workshops. A comprehensive constructability report is being prepared.*

*At the October 12, 2023, meeting, VTA stated that the VE Report was issued on October 5, 2023 and the Constructability Report is anticipated to be submitted to FTA/PMOC in November 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 previously provided a ROW Acquisition Summary, Appendix B, to their Monthly Progress Report, which has been omitted since the May 2023 report.* VTA has identified 82 total parcels with acquisitions needed,

including full and partial acquisitions, subsurface tunnel easements, temporary construction easements (construction staging areas), and permanent easements. *During the October 12, 2023, monthly meeting VTA presented a high-level summary, as of September 2023, of the Real Estate Acquisition / Relocation Status per the following Real Estate Summary Table:*

Description	Approved Legals and Plats	Appraisal process Completed	Offers Made	Purchase Agreements Signed	Board Adoption of RON	Eminent Domain Actions Filed	RELOCATION		Possession Obtained
							Required	Completed	
Total Parcels = 82 <sup>1</sup>	68	62	61	19	30	21	38/12 parcels	10	24

<sup>1</sup> Sum of 82 includes 7 innovation parcels on hold and excludes 3 parcels in which VTA is using enabling statute.

*During the October 12, 2023, monthly meeting VTA reported the following September 2023 activities and status of progress:*

- **Appraisals:** Completed appraisal process for 2 additional parcels.
- **Offers:** Made 4 additional offers to acquire property.
- **Purchase agreements:** 1 additional purchase agreement executed.
- **Eminent domain actions:** Filed 2 additional eminent domain actions.

*During the October 12, 2023, monthly meeting VTA indicated that the focus for October 2023 is on the following:*

- **Settlements:** Resolve document/title issues and execute purchase agreements - 6 properties (one will require FTA concurrence). Obtain FTA concurrence re settlement for Parcel ID no. B3110.
- **October RON hearings:** 2 properties
- **Appraisals:** Complete design and design approvals for 2 remaining properties at East Portal.

## **I. 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 October 12, 2023, monthly meeting, VTA provided the following Third-Party Agreements updates:

- *Critical Agreements required prior to FFGA: 26.*
  - *25 Executed, and 1 Open.*
  - *The open critical agreement (UPRR Final Engineering Agreement for CP2 work) is anticipated to be executed prior to the required need by date.*
- *Critical Agreements post FFGA: 5 (mainly Operations and 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. At the October 12, 2023, monthly meeting VTA reported that the associated agreements and/or permits to accomplish this will be identified by VTA and included in project agreement tracking next month. 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 <sup>1</sup>
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.

During the October 12, 2023, monthly meeting VTA reported the following:

- *West Portal:*
  - *PG&E 115kV interconnection service: PG&E expected to complete the Design by Q1 2024, estimated power available Q2 2025.*
  - *Cogent (formally Sprint) preliminary relocation layout design for Cogent facility has UPRR concurrence. Cogent to review the relocation layout.*
- *Diridon West Vent Shaft:*
  - *San Jose Water Company agreement for construction with VTA for execution.*
  - *Preliminary layout of storm drain, and sewer layout are completed by KST.*
  - *AT&T relocations layouts are under design by Utility owners.*
  - *Bandwidth design by utility owner has been completed.*
  - *PG&E Gas relocation is under design by PG&E.*
- *East Portal:*



- *PG&E and KST are working on the relocation layout of the underground gas line and overhead line relocations.*
- *San Jose water Company relocation is under design.*

## **J. Construction**

*During the October 12, 2023, monthly meeting VTA reported the following construction activities and status of progress:*

### *CP2 Tunnel and Trackwork*

#### *West Portal:*

- *West Portal early works start pending KST cost negotiation resolution.*
- *Continuing Right of Entry discussions with UPRR and SSWP process with Caltrain for the installation of existing track instrumentation and monitoring devices.*
- *Developing Site Specific Work Plan (SSWP) with Caltrain to pothole existing utilities in Caltrain Right of Way*

### *Facilities–Downtown San Jose, Diridon Station, 28thStreet/ Little Portugal:*

- *Developing early work and major construction facilities CTMP No. 4.*
- *Ongoing Supplemental geotechnical boring investigations, expected to be completed in November 2023.*
- *Property protection assessment development ongoing.*

### *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:*

- *Overhead door steel framing complete. Old overhead door removed, and temporary opening protected.*
- *Ceiling insulation demo completed.*
- *ADA pedestrian ramp poured.*
- *Build-out stud framing for rooms completed.*
- *MEP Rough-in at build-out in progress*
- *Roof ladder installation will complete in mid-October 2023*

## **K. 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. No update was provided at the October 12, 2023, monthly meeting.

## L. Project Cost

*VTA did not provide a Cost Report and Trends Register covering August 2023. VTA has provided FTA and the PMOC their new baseline cost estimate reflecting status through July 2023. This new baseline cost estimate will be reviewed in accordance with FTA's OP 33 Project Cost Review. Until VTA resumes standard reporting and review of the new baseline is complete, PMOC will have limited updates to this section of our monthly report.*

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
<b>TOTAL (SCC 10-100):</b>			<b>8,203,958,892</b>	<b>9,317,609,696</b>

*VTA has reported expenditures through August 31, 2023, including accruals, which total \$709.0M. Project costs have remained within SCC 40, SCC 60, and SCC 80 thus far. Project commitments have also been isolated to SCC 40, SCC 60, and SCC 80 and total \$969.9 through August 31, 2023. Program expenditure reporting to PMOC was suspended for the May and June 2023 reporting periods. The expenditure reporting resumed for the July 2023 reporting period, and project commitments reporting resumed this reporting period, covering August 2023.*

*The updated project capital cost estimate, including SCC Workbook, Baseline Schedule, Basis of Schedule, and Basis of Estimate is expected to be complete with VTA's new baseline of the project cost and schedule in October 2023. At the October 12, 2023, meeting, VTA indicated that most elements are available and the PMOC is awaiting back-up information and beginning the completeness review process.*

*During the October 12, 2023, monthly meeting VTA provided the following updates regarding the ongoing cost new baseline effort:*

- *New baseline cost estimate was submitted to FTA/PMOC on October 11, 2023.*
- *New baseline will reflect status through July 2023.*
- *Updated SCC 80 cost estimate to reflect current delivery plan and schedule.*
- *Revised SCC 90 risk assessment and update contingency.*
- *Updated escalation based on recent market survey and industry indices.*

## **M. Project Schedule**

*VTA did not provide a schedule report or schedule files covering August 2023 as part of their monthly reporting (received September 29, 2023). VTA has since provided FTA and the PMOC their new baseline schedule which has a data date of August 1, 2023. This new baseline schedule will be reviewed in accordance with FTA's OP 34 Project Schedule Review as part of the risk assessment process. Until VTA resumes standard reporting and review of the new baseline is complete, PMOC will have limited updates to this section.*

The Integrated Master Project Schedule (IMPS) 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. Phase II Project - Contract Package 1
10. Contract Package 2
11. Yard/SC Station
12. Underground

*VTA previously reported several provisional extensions to the RSD since the EPD baseline was submitted in April 2021. Prior to the new baseline, the most recent schedule update was for the April 2023 reporting period (data date May 1, 2023). the Revenue Service Date was last adjusted from July 29, 2033, to February 22, 2034, and the Substantial Completion to May 12, 2033.*

*During the October 12, 2023, monthly meeting VTA reported the following updates regarding the schedule new baseline effort in progress:*

- *New baseline schedule was submitted to FTA/PMOC on October 11, 2023.*
- *New baseline will reflect status through July 2023.*

## N. 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 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 (or will have) included the FTA and PMOC in the BSVII Risk review sessions for May, June, July, August, September, and October 2023.*

*VTA also 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.*

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 currently unable to make any factually based risk assessment given the new baseline efforts underway by VTA to re-establish the Project Cost and Schedule that reflects their planned delivery and updated packaging strategy, along with awarded CP2 contractor (KST) approved innovations. For the period ending August 2023, VTA reported the following risk updates.

#### ***New Risk:***

***BSV-204 Delays in Temporary Power S&H 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 S&H and power ready for PG&E drop-in.*

*PMOC acknowledges this new risk and initial scoring (12 - High).*

***BSV-205 Potential for litigation on approved NEPA Re-evaluation and CEQA Addendum.*** *Cause: VTA anticipates approval of NEPA/CEQA update from VTA Board & FTA in Feb/Mar 2024. There is potential for litigation on approved NEPA Re-evaluation and CEQA Addendum from various private parties. Impact: Delays in FFGA approval and issuance of NTP2.*

*PMOC acknowledges this new risk and initial scoring (10 – High).*

**BSV-206 Constructed structure does not meet intended design criteria due to quality control issues in application.** Cause: Constructed structure does not meet intended design criteria; construction defects result in groundwater ingress in stations. Impact: water ingress causes maintenance and operational impacts to the facility.

PMOC acknowledges this new risk and initial scoring (6 – Medium).

**BSV-207 Subsurface utility investigations delays resulting in additional relocations identified during later design phase.** Cause: KST's utility verification and subsurface investigations have not commenced. Impact: Additional necessary relocations needed that delay the project.

PMOC acknowledges this new risk and initial scoring (4 – Medium).

**BSV-208 KST Overall Design approach leading to higher project cost and potential for delays due to redesign to fit within budget.** Cause: KST design packages not providing all design elements required in the said design level (e.g., 60% design not including all necessary design functions); Also, not demonstrating design capability to fit design into budget. Risk: design to de-risk contractor, higher contractor mark-ups. Impact: Complicated and costly project profile leading to challenges with VTA in effectively negotiating with KST on costs resulting in added costs and schedule.

PMOC acknowledges this new risk and initial scoring (12 – High).

**BSV-209 Uncertainty in PDB process resulting in changes to project definition impacting CP2 construction schedule.** Cause: Uncertainty with the PDB contract including a). Schedule management / adherence during Stage 1 for Stage 2 work; b). Changes to Stage 1 contract to obtain competitive price (e.g., force them to bid out work, etc.); c). Negotiation challenges for scope in/out from PDB contract. Impact: Limited to no cost/schedule certainty until Stage 2 GMP.

PMOC acknowledges this new risk and initial scoring (12 – High).

**BSV-210 Potential construction methods impact approved environmental footprint.** Cause: If construction for the Project occurs outside the environmentally cleared footprint and it was not evaluated in a NEPA document Impact: Delays in evaluating environmental impact and potential for cost non-reimbursements due to funding constraints.

PMOC acknowledges this new risk and initial scoring (6 – Medium).

**Retired Risk:**

**BSV-107 Stations design delays due to TOD coordination.** TOD decisions influence design efforts. Per VTA, risk is no longer viewed to impact program baseline.

PMOC recommends this risk remains open since TOD coordination is ongoing.

**BSV-197 Opportunity to refine Vol 1 requirements for systems resulting in cost savings.** As part of design development, VTA is identifying various revisions to Volume 1 Specifications that could result in potential cost savings by simplifying project requirements and reducing potential for disputes during construction. Per VTA, risk is no longer viewed to impact program baseline.

PMOC acknowledges the retirement of this risk.

**Increased Risk:**

**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 creating the need to pay a premium.

Per VTA, revised assessment for this risk poses specific challenges related to the new baseline cost and schedule development. Risk to be further revised as the underlying impacts are addressed and the program new baseline efforts are finalized.

PMOC acknowledges this increased risk scoring (12 – High).

**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 / turnovers from one to another contractor and finally to BART, resulting in impacts to scope, schedule and budget.

PMOC acknowledges this increased risk scoring (12 – High).

**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.

Per VTA, revised assessment for this risk poses specific challenges related to the new baseline cost and schedule development. Risk to be further revised as the underlying impacts are addressed and the program new baseline efforts are finalized.

PMOC acknowledges this increased risk scoring (12 – High).

**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. Per VTA, revised assessment for this risk poses specific challenges related to the new baseline cost and schedule development. Risk to be further revised as the underlying impacts are addressed and the program new baseline efforts are finalized.*

PMOC acknowledges this increased risk scoring (12 – High).

**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.*

*Per VTA, revised assessment for this risk poses specific challenges related to the new baseline cost and schedule development. Risk to be further revised as the underlying impacts are addressed and the program new baseline efforts are finalized.*

PMOC acknowledges this increased risk scoring (20 – High).

**Reduced Risk: None reported.**

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 July, 2023 Risk Register Top 10		
Risk ID	Risk Title	VTA Risk Score
BSV-191	CP2 PDB Stage 1 extended innovations approval process impact PDB cost and schedule.	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-096	Testing and Commissioning delays due to various factors.	12
BSV-136	Unanticipated BART objections to agreed EVS.	10
BSV-196	Failure to secure a lump-sum price with KST resulting in Off-ramp.	10
BSV-008	Delays in temporary power for TBM launch at West Portal.	9
BSV-036	Shortage of construction labor to support aggressive schedule resulting in competition for resources.	9
BSV-053	Needed Right of Way parcels are not available for critical path construction.	9
BSV-132	Management capacity with staff continuity and availability of employees with technical experience to replace departing staff.	9

VTA August, 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-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
BSV-208	KST Overall Design approach leading to higher project cost and potential for delays due to redesign to fit within budget.	12

*During the PMOC monthly meeting held October 12, 2023, VTA presented the following progress updates:*

- *Ongoing Risk Review meetings with Program, Project, Discipline Leads and key stakeholders.*
- *Continue refresh of Program Risk Register consistent with cost and schedule new baseline effort currently underway.*

*Additionally, VTA identified these forthcoming risk updates:*

Major Changes <sup>1</sup>	Risk Title
Retired	• None
Increased	• None
Reduced	<ul style="list-style-type: none"> <li>• BSV-078 – Unclear DCM requirements related to maintainability and operability</li> <li>• BSV-191 – CP2 extended innovations concurrence process</li> </ul>
New	• None

*NOTE: Previous PMOC reporting provided combined risk analysis and assessment documentation, but until VTA completes their revised bottom-up estimates for each contract*



*package and schedule new baseline as well as a risk refresh effort being completed, these analyses have been postponed.*

## **O. 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.*

*During the October 12, 2023, monthly meeting VTA reported the following quality activities:*

- *GEC audit – continue program audit and preparing audit report.*
- *KST is preparing to submit QMP for pre-submittal review.*

## **P. Safety and Security**

### **Committee Activities**

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 FLSSC is co-chaired by BART Fire Life Safety (FLS) Deputy Director and VTA System Safety Director and includes local fire and police departments, California Public Utilities Commission (CPUC), BART (engineering, system safety, and police), and VTA (police liaison and project managers). The CPUC is the State Safety Oversight Agency (SSOA) as certified by FTA.

*During the October 12, 2023, monthly meeting VTA reported the following System Safety and Security Risk Management / Certification activities:*

- *Updated Safety and Security Review Committee (SSRC) and Fire, Life, Safety and Security Committee (FLSSC) charters are being implemented.*
- *The SSRC and FLSSC next meetings are being scheduled with agenda items being collected to ensure alignment with the project schedule.*
- *Safety and Security risk workshop for the underground stations and systems are being scheduled for the end of October 2023. Four separate workshops are planned: Fare collection, communications, and train control systems; Traction power and line electrification systems; Underground stations (GEC/KST coordination); and Emergency Ventilation System. A follow up meeting for Santa Clara Station and the New Hall Yard will also be held to capture the VE efforts since the first workshop was held covering that scope.*
- *The TVA for GEC scoped elements has been updated to include the audits.*
- *GEC and CP2 staff continue to be trained and cleared to view security sensitive information (SSI).*

### **Fire Life Safety and Security Committee**

The first FLSSC meeting was conducted on October 7, 2021. FLS 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 is scheduled for October 18, 2023 when removal of the mid-tunnel ventilation facilities and the current design for the EVS will be discussed.*

BSVII is continuing bi-weekly FLS working group meetings with the local Fire Chiefs to keep them updated on progress. Recent discussions have invited Oakland and San Francisco Fire Departments to share experiences responding to underground environments. PMOC applauds this sharing of experience and lessons learned, and questions how the shared information is being documented and distributed amongst the BSVII team and the broader BART and VTA agencies.

### **Safety and Security Review Committee**

The monthly SSRC meetings commenced in January 2021, with the latest meeting held *September 20, 2023*. The next SSRC meeting is scheduled for *October 25, 2023*.

### **Governance Documents**

PMOC reviewed the Safety and Security Management Plan (SSMP) (Rev. 0.B) included as part of the EPD application and has received the Safety and Security Certification Plan (SSCP) as a supporting document, which VTA also submitted to the California Public Utilities Commission (CPUC) on June 16, 2021, for approval. On August 17, 2021, CPUC approved the SSCP and provided a State Safety Oversight Plan. On May 26, 2023, VTA submitted an updated SSMP (Rev. 0.C dated May 1, 2023) and an updated SSCP (Rev. C dated May 1, 2023) with the above-noted PMP Subplans to support VTA's New Starts request to enter Engineering.

### **Safety/Security Analysis**

VTA's baseline Preliminary Hazard Analysis (PHA) will be provided to each Contract Package contractor as a reference document so they may expand on the content once they come on board. Each Contract Package will produce their own PHA, respective to each scope of work.

*The Underground Stations PHA Workshop scheduled for August 6, 2023, was postponed due to GEC resources. The PHA workshops will resume when Value Engineering (VE) efforts are finalized. Depending on the VE results, the Yard and Shop PHA Workshop and Santa Clara Station PHA Workshop may need to have additional sessions to evaluate any impacts. PHA workshops are anticipated to resume in October 2023.*

KST submitted its Hazard Analysis Report to VTA for review and comment. VTA has shared the updated KST PHA with BART and SSRC members. *BART has reviewed the updated KST PHA and provided comments to VTA for hazards not captured in the PHA. VTA can evaluate these hazards and consider incorporating them into the PHA.*

### **Safety/Security Certification Status Updates – Procurement Phase**

The approach to safety-certify procurement documents was established based upon the outdated project delivery scheme; a Certificate of Conformance (CoC) for each Contract Package for RFP Phase Preliminary Engineering (PE) would be generated and signed. The backup documentation for each CP certification package includes the respective sections of the finalized DCM (Design Criteria Manual).

*The ventilation element has been moved from the CP1 scope to CP2 scope. This scope transfer will require an executed change order with CP2. The CP1 and CP2 PE certification packages will need to be updated.*

#### **Q. Americans with Disabilities Act (ADA)**

VTA produced an Accessibility Report to meet the EPD application requirements specified in the NOFO (Notice of Funding Opportunity). *No update was provided at the October 12, 2023, monthly meeting.*

#### **R. 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 October 12, 2023, 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.*

#### **S. 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 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.

*PMOC was expecting a System Integration Testing Program Plan based on prior progress reports from VTA. Instead, PMOC will reference the System Integration Test Plan received in*

preparation for the Entry to Engineering risk assessment and readiness review. No update was provided at the October 12, 2023. monthly meeting.

**T. Action Items Table**

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Complete	Status / Action Required
131	Provide the Innovations Cost and Schedule Document(s) to FTA/PMOC	VTA	4/13/2023	6/8/2023	10/4/2023	<b>Closed</b> – Submitted on October 4, 2023.
133	Confirm Baseline regarding Tunnel Excavated Materials	VTA	5/11/2023	6/8/2023		<b>Open</b> Provide associated CP2 contract reference(s) documenting the baseline.
137	Provide copy of executed CP2 contract.	VTA	7/13/2023	TBD pending approval of release by VTA legal	10/2/2023	<b>Closed</b> Submitted on October 2, 2023.
139	Provide a copy of the Salt Ponds Clearance Project schedule to PMOC.	VTA	9/14/2023			<b>Open</b>
140	Provide advanced notification to PMOC of rescheduled FLSSC meeting regarding EVS changes.	VTA	9/14/2023	10/12/2023	10/12/2023	<b>Closed</b> – Confirmed FLSSC meeting on October 18, 2023.
141	Provide copies of the SSRC and FLSSC Charters to PMOC	VTA	9/20/2023	10/12/2023	09/27/2023	<b>Closed</b> - (Identified during 9/20/2023 SSRC meeting). Submitted on September 27, 2023
142	Set Risk Assessment Kick-off Meeting	PMOC	10/12/2023	10/20/2023	10/13/2023	<b>New and closed</b> – invitations sent 10/13/2023; meeting held 10/19/2023

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Complete	Status / Action Required
143	<i>Include FLSSC recap on agenda for November meeting key issues</i>	<i>PMOC</i>	<i>10/12/2023</i>	<i>11/1/2023</i>		<i>New</i>
144	<i>Set breakout meeting for Salt Ponds discussion and resolution of Action Item #133</i>	<i>VTA</i>	<i>10/12/2023</i>	<i>10/31/2023</i>		<i>New</i>
145	<i>Confirm if BOD Report intended to be submitted has been updated since 6/27/2023 Tech Docs Submittal version</i>	<i>VTA</i>	<i>10/12/2023</i>	<i>10/20/2023</i>	<i>10/18/2023</i>	<i>New and closed – confirmed via email</i>
146	<i>Provide new baseline cost estimate backup in spreadsheet format (including the independent cost estimate)</i>	<i>VTA</i>	<i>10/12/2023</i>	<i>10/20/2023</i>		<i>New</i>
147	<i>Identify where contract packaging plan is spelled out or provide a narrative</i>	<i>VTA</i>	<i>10/12/2023</i>	<i>10/20/2023</i>		<i>New</i>

### **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 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
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 Jose
CTMP	Construction Transportation 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
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
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, October 12, 2023 – 1:00pm (Pacific)  
Conference Connection: MS Teams

1. Introductions/Roll Call
2. Key Agency-level updates (organization, financial, legal, safety, COVID-19, 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. Update on the EVS and the Mid-Tunnel Ventilation Facilities
    - ii. TBM Procurement Update
    - iii. Release date of the Cost and Schedule new baselines
  - d. NEPA / Environmental Mitigations
  - e. Project Delivery Method and Procurement Status
    - i. Project-Wide
    - ii. Systems DBB
    - iii. CP2 PDB
    - iv. Facilities DBB/CMGC
    - v. Stations DBB/CMGC
  - 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. November 9, 2023, 1:00pm (Pacific)
  - b. December 14, 2023, 1:00pm (Pacific)

### C. Monthly Meeting Attendees

Organization	Name	E-mail	10/12/2023
FTA Region IX	Susan Ko	<a href="mailto:susan.ko@dot.gov">susan.ko@dot.gov</a>	x
FTA	Edward Carranza	<a href="mailto:edward.carranza@dot.gov">edward.carranza@dot.gov</a>	x
FTA	Tahir Khattak	<a href="mailto:m.khattak@dot.gov">m.khattak@dot.gov</a>	x
VTA	Afshin Abtahi	<a href="mailto:aabtahi@vtabsv.com">aabtahi@vtabsv.com</a>	x
VTA	Khair Amini	<a href="mailto:KhairMohammad.Amini@vta.org">KhairMohammad.Amini@vta.org</a>	x
VTA	Kannu Balan	<a href="mailto:kbalan@vtabsv.com">kbalan@vtabsv.com</a>	x
VTA	Hassan Basma	<a href="mailto:hassan.basma@vta.org">hassan.basma@vta.org</a>	x
VTA	Erik Blum	<a href="mailto:eblum@vtabsv.com">eblum@vtabsv.com</a>	x
VTA	Allison Daniels	<a href="mailto:allison.daniels@vta.org">allison.daniels@vta.org</a>	x
VTA	Krishna Davey	<a href="mailto:krishna.davey@vta.org">krishna.davey@vta.org</a>	x
VTA	John Funghi	<a href="mailto:jfunghi@vtabsv.com">jfunghi@vtabsv.com</a>	x
VTA	Rosemarrie Gonzalez	<a href="mailto:rosemarrie.gonzalez@vta.org">rosemarrie.gonzalez@vta.org</a>	x
VTA	Gary Griggs	<a href="mailto:gary.griggs@vta.org">gary.griggs@vta.org</a>	x
VTA	Samantha Mcclarey	<a href="mailto:Samantha.mccleary@vta.org">Samantha.mccleary@vta.org</a>	x
VTA	Ronak Naik	<a href="mailto:ronak.naik@vta.org">ronak.naik@vta.org</a>	x
CPUC	Stephen Artus	<a href="mailto:stephen.artus@cpuc.ca.gov">stephen.artus@cpuc.ca.gov</a>	x
CPUC	Daniel Kwok	<a href="mailto:daniel.kwok@cpuc.ca.gov">daniel.kwok@cpuc.ca.gov</a>	x
CPUC	Rupa Shitole	<a href="mailto:rupa.shitole@cpuc.ca.gov">rupa.shitole@cpuc.ca.gov</a>	x
HNTB	Suresh Kataria	<a href="mailto:skataria@hntb.com">skataria@hntb.com</a>	x
HNTB	Sean Libberton	<a href="mailto:slibberton@HNTB.com">slibberton@HNTB.com</a>	x
WSP	Anthony Murphy	<a href="mailto:tony.murphy@wsp.com">tony.murphy@wsp.com</a>	x
Kimley-Horn	Erica Roecks	<a href="mailto:Erica.Roecks@kimley-horn.com">Erica.Roecks@kimley-horn.com</a>	x
WSP	Lurae Stuart	<a href="mailto:lurae.stuart@wsp.com">lurae.stuart@wsp.com</a>	x
QE Corp	Fred Zerebinski	<a href="mailto:fzerebinski@qecorp.com">fzerebinski@qecorp.com</a>	x
PMOC	Heather Browning	<a href="mailto:heather.browning@atkinsrealis.com">heather.browning@atkinsrealis.com</a>	x
PMOC	Emile Jilwan	<a href="mailto:emile.jilwan@atkinsrealis.com">emile.jilwan@atkinsrealis.com</a>	x
PMOC	Jena Montgomery	<a href="mailto:jena.montgomery@atkinsrealis.com">jena.montgomery@atkinsrealis.com</a>	x
PMOC	Mignon Allen	<a href="mailto:amallen@dovetailconsulting.net">amallen@dovetailconsulting.net</a>	x
PMOC	Laurel Espenlaub	<a href="mailto:laurel.espenlaub@atkinsrealis.com">laurel.espenlaub@atkinsrealis.com</a>	x
PMOC	Gil Gardner	<a href="mailto:gilbert.gardner@atkinsrealis.com">gilbert.gardner@atkinsrealis.com</a>	x
PMOC	Beth Sprague	<a href="mailto:beth.sprague@atkinsrealis.com">beth.sprague@atkinsrealis.com</a>	x

#### D. List of Documents Received

Document	Received
<i>BSVII-Project Risk Register AUG-2023 Clean Draft 09-07-2023.xlsx</i>	9/29/2023
<i>Third party agreement tracking 08.31.23.xlsx</i>	9/29/2023
<i>BSVII_Monthly_Progress_Report_August 2023.pdf</i>	9/29/2023
<i>P0509-PW-RSO-PRO-230-BSVII_FLSSC_Charter.pdf</i>	9/27/2023
<i>P0509-PW-RSO-PRO-231-BSVII_SSRC_Charter.pdf</i>	9/27/2023
<i>BSVII FTA-VTA PMOC Monthly Meeting_2023-09-14_Draft.pdf</i>	9/11/2023
<i>BSVII_Monthly_Progress_Report_July 2023.pdf</i>	9/1/2023
<i>BSVII-ProjectRiskRegister JUL-2023_Clean Draft 08-03-2023.xlsx</i>	9/1/2023
<i>Third party agreement tracking 07.31.23.xlsx</i>	9/1/2023

**E. VTA Top 10 Project Risks**

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-191	CP2 PDB Stage 1 extended innovations concurrence process impact PDB cost and schedule.	KST submitted innovations report in August 2022 and per the IMPS schedule, it was anticipated approval by Nov/Dec 2022. As the innovations are still being reviewed, KST is moving forward with innovations, as part of the configuration design development, that are pending formal concurrence by VTA and BART. There is a risk of potential design rework and schedule delays if select innovations are not formally approved resulting in additional cost and time to CP2 scope.	15	3. VTA/BART to conduct joint executive level sessions to address path forward on the concurrence on innovations.
BSV-005	Unanticipated or inadvertent damage to historic buildings, critical utility & other structures due to vibration and/or settlement.	Unanticipated or inadvertent damage to buildings (especially historic buildings), structures and/or utilities caused by vibration and/or settlement during construction leading to additional cost to mitigate. Mainly focused downtown along Santa Clara St, but extending to the area encompassed by settlement trough.	12	7. Obtain access (PTE) to perform structural inspection on 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 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, 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	1. Complete cost estimate on 30% design, including incorporating input from VE efforts into program cost estimate for submission to FTA. 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-096	Testing and Commissioning delays due to various factors.	Testing and commissioning delays due to: - Insufficient time allocated to the schedule for testing activities. - 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	1. Elicit and define requirements from stakeholders and capture in the contract documents. 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. Agree on the framework and durations of the T&C program. 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.
BSV-136	Unanticipated BART objections to agreed EVS.	Continued resolution of EVS approach with BART to address their OM&S concerns including mid-tunnel facilities and other innovation related changes to requirements.	10	4. VTA and BART management to meet to finalize the EVS configuration. 5. VTA to document all key decisions as part of the project's Decision Approval Documents.

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
BSV-196	Failure to secure a lump-sum price with KST resulting in Off-ramp.	Failure to secure a negotiated Stage 2 GMP with KST, Cause: KST's unwillingness to accept reasonable risk strategies/sharing within VTA NSPD basis. Risk: Failure to agree on GMP and come to terms with KST. Impact: Off-ramp with CP2 contract scope.	10	1. Utilize early items like West Portal development as prescriptive early construction items during Stage 1 to lessen the impacts/delays of implementing an off-ramp. 2. Identify secondary mitigations to relieve pressure on VTA budget.
BSV-008	Delays in temporary power for TBM launch at West Portal.	Delays in the availability of temporary power for the TBM due to procurement of equipment and availability of construction resources for the planned PG&E's FMC improvements.	9	3. Continue to coordinate with PG&E on implementation of interconnection line for temporary power to TBM.
BSV-036	Shortage of construction labor to support aggressive schedule resulting in competition for resources.	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 creating the need to pay a premium.	9	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-053	Needed Right of Way parcels are not available for critical path construction.	As the ROW parcels being acquired, there is a potential for needed ROW parcels (PTE and permanent takes) going into condemnation or taking a longer time to acquire due to timely availability of approved legal and plats, etc. This may result in ROW not available in time as stipulated in the DB contracts to support critical path construction.	9	1. Continue to progress on ROW acquisition as planned. 2. Communicate any uncertainty between Real Estate and Engineering and prioritize critical parcels for immediate acquisition. 4. Review KST schedule (Stage 1 Baseline after approval) and refine need-by dates for various locations.
BSV-132	Management capacity with staff continuity and availability of employees with technical experience to replace departing staff.	Given the length of the BSVII Program (10+ years), key personnel may change through the project duration and would result in knowledge gaps during project implementation and may 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.	9	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.

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	1. Following input from constructability review workshop, KST to finalize design of EWP 3C (SOE) construction & CP2 to finalize scope and make a Go/No Go decision. 2. Develop documentation for VTA Nov Board approval on EWP Budgets. 2. Start Caterpillar Shaft construction by Jan 2024
BSV-005	Unanticipated or inadvertent damage to historic buildings, critical utility and other structures due to vibration and/or settlement.	Unanticipated or inadvertent damage to buildings (especially historic buildings), structures and/or utilities caused by vibration and/or settlement during construction leading to additional cost to mitigate. Mainly focused downtown along Santa Clara St, but extending to the area encompassed by settlement trough.	12	7. Obtain access (PTE) to perform structural inspection on 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, 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	1. Complete cost estimate on 30% design, including incorporating input from VE efforts into program cost estimate for submission to FTA. 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 creating the need to pay a premium.	12	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: - Insufficient time allocated to the schedule for testing activities. - 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	1. Elicit and define requirements from stakeholders and capture in the contract documents. 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. Agree on the framework and durations of the T&C program. 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.
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 includes 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.

Risk ID	Risk Title	Risk Description	Risk Score	Action Items Description
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	<ol style="list-style-type: none"> <li>1. VTA to obtain access (PTE) to A&amp;B for building strengthening and status of Billboards.</li> <li>2. VTA to work with property owner to redesign access, obtain city permits and reconstruct new access. Target Aug 2025.</li> <li>3. VTA Real Estate to acquire Kolander property and relocate business by Aug 2025.</li> <li>4. KST to develop detailed schedule that forecasts need-by dates.</li> <li>5. For A&amp;B properties, KST to confirm that the Marburg Way solution is acceptable to them.</li> <li>6. VTA to develop a list of priority issues to discuss/resolve with KST.</li> </ol>
BSV-204	Delays in Temporary Power S&H 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 S&H and power ready for PG&E drop-in.	12	<ol style="list-style-type: none"> <li>1. Complete design and PO support documentation for early works package</li> <li>2. Execute early works package #11 to avoid delay to TBM assembly by Oct 2023.</li> <li>3. Direct KST to expedite step-down transformer procurement.</li> <li>4. Explore availability of step-down transformer within BART to avoid delays.</li> </ol>
BSV-208	KST Overall Design approach leading to higher project cost and potential for delays due to redesign to fit within budget	Cause: KST design packages not providing all design elements required in the said design level (e.g. 60% design not including all necessary design functions); Also, not demonstrating design capability to fit design into budget. Risk: design to de-risk contractor, higher contractor mark-ups, Impact: Complicated and costly project profile leading to challenges with VTA in effectively negotiating with KST on costs resulting in added costs and schedule.	12	<ol style="list-style-type: none"> <li>1. Explore risk sharing with KST - direct contractor on certain design concepts vs. nudging them.</li> <li>2. Direct Contractor to obtain competitive price on various packages.</li> <li>3. Look into negotiating Stage 1 contract to include in contract, for KST to meet, a target price and target schedule.</li> <li>4. Conduct constructability meetings with KST to pinpoint/ address cost increases.</li> <li>5. Bring on additional resources on-site to support Stage 2 negotiations and bring estimate down within the ICE range.</li> <li>6. Explore developing alt. design concepts in-house to highlight efficiency-related opportunities for use in price negotiation.</li> </ol>

Source: BSVII Monthly Progress Report August 2023



**F. Project Milestones/Key Events**

Milestone	Planned Date
<b>General Key Milestones</b>	
Contract 1 Systems Design Bid Ready & Review	20-Jul-21
Contract 2 Tunnel & Trackwork Design Bid Ready & Review	7-Jul-21
Contract 3 Newhall Yard and Santa Clara Station Design Bid Ready & Review	31-May-22
Contract 4 Stations and Support Facilities Design Bid Ready & Review	16-Jul-21
Start of Revenue Service	7-May-30
<b>Construction Contracts Key Milestones</b>	
<b>Contract 1 Systems</b>	
Contract 1 NTP Systems	27-Apr-22
Track Testing Completion	1-Feb-29
Systems Testing Completion Turn Over to BART	1-Feb-29
<b>Contract 2 Tunnel and Trackwork</b>	
Contract 2 NTP Tunnel & Trackwork	8-Apr-22
Order TBM	30-Jun-22
Deliver TBM	7-Jul-23
Start of Tunneling	9-Oct-23
Start of Trackwork	24-Aug-26
<b>Contract 3 Newhall Yard and Santa Clara Station</b>	
Contract 3 NTP Newhall Yard and Santa Clara Station and Parking Garage	29-Jun-23
Start of Santa Clara Station Fit-Out	9-Mar-28
Santa Clara Station Parking Garage Construction Completion	3-Jul-28
Newhall Yard Trackwork Completion	28-Mar-28
<b>Contract 4 Stations</b>	
Contract 4 NTP Stations and Support Facilities	27-Jul-22
Diridon Station Fit-Out Completion	19-May-28
28th Street Station Parking Garage Construction Completion	16-May-28
DTSJ Station Fit-Out Completion	23-Oct-28
28th Street Station Fit-Out Completion	25-Jan-29

*Source: VTA's BART Silicon Valley Phase II Extension Project Basis of Schedule, Revision No. E.*

## G. Project Map

