### Acronyms

- **AEOC**: Arena Entertainment and Operations Committee
- **ARTP**: Archaeological Resources Treatment Plan
- **BAAQMD**: Bay Area Air Quality Management District
- **Caltrans**: California Department of Transportation
- **CEOP**: Construction Education and Outreach Plan
- **CHSRA**: California High Speed Rail Authority
- **CMP**: Containment Management Plan
- **COMP**: Construction Outreach Management Program
- **CP**: Consulting Parties
- **CTMP**: Construction Transportation Management Plan
- **CWG**: Community Working Groups
- **ESCP**: Emergency Services Coordination
- **FHA**: Federal Highway Administration
- **FRA**: Federal Railroad Administration
- **FST**: Floating Slab Track
- **FTA**: Federal Transit Administration
- **ISA**: Initial Site Assessment
- **IST**: Isolated Slab Track
- **NA**: Native American
- **PA**: Programmatic Agreement
- **RAPs**: Remedial Action Plans
- **ROD**: Record of Decision
- **RWQCB**: Regional Water Quality Control Board
- **SHPO**: State Historic Preservation Officer
- **SJRRC**: San Joaquin Regional Rail Commission
- **SJWC**: San Jose Water Company
- **TCP**: Traffic Control Plans
- **VTA**: Santa Clara Valley Transportation Authority
- **VTA Green**: VTA Green Building Policy 400.004
- **VTA Sust**: VTA Sustainable Landscaping Policy CMA-CL-PL-7120

### Timeframe for Implementation letter codes:

- **C**: Construction
- **D**: Design
- **P**: Post Construction

### Responsible Party codes: VTA and/or C = Contractor

### Compliance Status letter codes:

- **IC**: In Compliance
- **OU**: Out of Compliance
- **CC**: Complete and Closed
- **N/A**: Non Applicable

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### Supplemental Environmental Impact Statement (SEIS), Subsequent Environmental Impact Report (SEIR)

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<tr>
<td>ROD</td>
<td>Federal Transit Administration Record of Decision</td>
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### VTA Sustainability Practices

- **VTA Green**: VTA Green Building Policy 400.004
- **VTA Sust**: VTA Sustainable Landscaping Policy CMA-CL-PL-7120
### BSV Phase II - Environmental Commitments Record
#### Mitigation Monitoring & Reporting Program

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<tbody>
<tr>
<td>Environmental Document Chapter</td>
<td>Mitigation Measure</td>
<td>Description</td>
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<td></td>
</tr>
<tr>
<td>Transportation / Develop and Implement a Construction Education and Outreach Plan</td>
<td>Develop and Implement a Construction Education and Outreach Plan (CEOP)</td>
<td>Develop and Implement a Construction Education and Outreach Plan: Inform and engage partner agencies, stakeholders, including VTA's BART Silicon Valley Phase II Community Working Groups, business organizations, business owners, tenants, the media, and the public on a regular and frequent basis.</td>
<td>VTA presented to multiple stakeholder groups in Q2 of 2023, including: the BART Accessibility Task Force (BATF) on 5/25 and the BART Bicycle Advisory Task Force (BAATF) on 6/5/23.</td>
<td></td>
<td>Q2 2023</td>
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**Transportation / Develop and Implement a Construction Education and Outreach Plan**

<table>
<thead>
<tr>
<th>Mitigation Topic</th>
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<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment / Construction Safety Plan</td>
<td>Develop a Construction Education and Outreach Plan: Provide and maintain a 24-hour/7-day a week project hotline for emergencies.</td>
<td>The project hotline is continuing to be provided for and maintained.</td>
<td></td>
<td>Program-wide</td>
<td>Q4 2020</td>
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**Transportation / Develop and Implement a Construction Education and Outreach Plan**

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<tr>
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<tbody>
<tr>
<td>Environment / Construction Safety Plan</td>
<td>Develop a Construction Education and Outreach Plan: Conduct preconstruction operational surveys of businesses located adjacent to construction areas to ascertain hours of operation, access, deliveries, customer base, special circumstances, and key contacts.</td>
<td>The VTA Downtown Service Center is currently under construction in conjunction with the new VTA Downtown Service Center. It is anticipated to be opened in Q2 2023. Search for a location for the 28th Street/Little Portugal field office is still underway.</td>
<td></td>
<td>Program-wide</td>
<td>Q4 2020</td>
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**Transportation / Develop and Implement a Construction Education and Outreach Plan**

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<tr>
<td>Environment / Construction Safety Plan</td>
<td>Develop a Construction Education and Outreach Plan: Coordinate on Other Construction Projects</td>
<td>Coordinate on Other Construction Projects</td>
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<tr>
<td>Environment / Construction Safety Plan</td>
<td>Develop a Construction Education and Outreach Plan: Conduct public workshops, meetings, or workshops for community members. Hold regular meetings with the surrounding businesses and residents throughout the course of construction.</td>
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**Transportation / Develop and Implement a Construction Education and Outreach Plan**

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<tr>
<td>Environment / Construction Safety Plan</td>
<td>Develop a Construction Education and Outreach Plan: Conduct regular meetings with the City of San Jose and/or Santa Clara to foster communication between VTA, various municipalities, and the public during construction. VTA will develop the CEOP after the environmental process is complete and implement it prior to construction. The CEOP will ensure that VTA coordinates construction activities with existing business operations and other development projects to minimize disruptions and delays.</td>
<td></td>
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### BSV Phase II - Environmental Commitments Record

#### Mitigation Monitoring & Reporting Program

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<tr>
<td>Transportation/ Develop Construction Transportation Management Plan (CTMP)</td>
<td>Environmetal Mitigation Topic</td>
<td>MMRP-288-Vol-1-RDD</td>
<td>Vol-L</td>
<td>14</td>
<td>Develop Construction Transportation Management Plan (CTMP) in coordination with city partners, VTA will work with its contractors and the cities designated areas.</td>
<td>Developing and Implementing a Transportation Management Plan: After the environmental process is complete and prior to beginning any construction activity, VTA will work with the Cities of San Jose and Santa Clara to develop Master Cooperative Agreements than will direct all coordination and partnering efforts between VTA and the cities prior to and during construction of the BART Extension. One element of the Master Cooperative Agreements is the CTMP and its General Engineering Contractor will develop and implement the CTMP in partnership with the Cities of San Jose and Santa Clara to coordinate location-specific circulation and access within and around the construction areas for all modes, including automobiles, trucks and construction vehicles, bicyclists, pedestrians, and public transportation such as buses and light rail. The CTMP will be organized according to each of the ten major project elements listed from east to west along the alignment: East Tunnel Portal, Alum Rock/28th Street Station, 12th Street Ventilation Structure, Downtown San Jose Station, Diridon Station,ackson Avenue Ventilation Structure, West Tunnel Portal, Newhall Maintenance Facility, and Santa Clara Station, and any offsite improvement locations. The CTMP will be tailored to address the site-specific circumstances and sequencing of construction at each of the ten areas. The CTMP will be developed in partnership with the applicable city and incorporated into all plans and specifications of all contracts through which the BART Extension will be implemented. Critical components of the CTMP are as follows: (a) sequencing schedule depicting the proposed location and timing of construction activities on a routine basis for the duration of the project; (b) proposed phasing of construction, temporary lane and street closures, detours, temporary signals, and street reconstructions, including durations of all of the above and signage requirements that the contractor must follow; (c) truck haul routes, location-specific requirements as applicable. In addition, VTA will work with the cities to minimize access and circulation construction impacts during special events, including Christmas in the Park, parades, and marathons.</td>
<td>Post-construction (P)</td>
<td>VTA</td>
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<tr>
<td>Transportation/ Develop and Implement a Construction Transportation Management Plan</td>
<td>Mitigation Measure</td>
<td>MMRP-288-Vol-1-RDD</td>
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<td>19</td>
<td>Develop Individual Traffic Control Plans (TCPs)</td>
<td>Developing and Implementing a Construction Transportation Management Plan: After the environmental process is complete and prior to beginning any construction activity, VTA will work with the Cities of San Jose and Santa Clara to develop Master Cooperative Agreements than will direct all coordination and partnering efforts between VTA and the cities prior to and during construction of the BART Extension. One element of the Master Cooperative Agreements is the CTMP and its General Engineering Contractor will develop and implement the CTMP in partnership with the Cities of San Jose and Santa Clara to coordinate location-specific circulation and access within and around the construction areas for all modes, including automobiles, trucks and construction vehicles, bicyclists, pedestrians, and public transportation such as buses and light rail. The CTMP will be organized according to each of the ten major project elements listed from east to west along the alignment: East Tunnel Portal, Alum Rock/28th Street Station, 12th Street Ventilation Structure, Downtown San Jose Station, Diridon Station,ackson Avenue Ventilation Structure, West Tunnel Portal, Newhall Maintenance Facility, and Santa Clara Station, and any offsite improvement locations. The CTMP will be tailored to address the site-specific circumstances and sequencing of construction at each of the ten areas. The CTMP will be developed in partnership with the applicable city and incorporated into all plans and specifications of all contracts through which the BART Extension will be implemented. Critical components of the CTMP are as follows: (a) sequencing schedule depicting the proposed location and timing of construction activities on a routine basis for the duration of the project; (b) proposed phasing of construction, temporary lane and street closures, detours, temporary signals, and street reconstructions, including durations of all of the above and signage requirements that the contractor must follow; (c) truck haul routes, location-specific requirements as applicable. In addition, VTA will work with the cities to minimize access and circulation construction impacts during special events, including Christmas in the Park, parades, and marathons.</td>
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<td>VTA</td>
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<td>Transportation/ Develop and Implement a Construction Transportation Management Plan</td>
<td>Mitigation Measure</td>
<td>MMRP-288-Vol-1-RDD</td>
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<td>20</td>
<td>Include Site-Specific Requirements in Traffic Control Plans (TCPs)</td>
<td>Developing and Implementing a Construction Transportation Management Plan: After the environmental process is complete and prior to beginning any construction activity, VTA will work with the Cities of San Jose and Santa Clara to develop Master Cooperative Agreements than will direct all coordination and partnering efforts between VTA and the cities prior to and during construction of the BART Extension. One element of the Master Cooperative Agreements is the CTMP and its General Engineering Contractor will develop and implement the CTMP in partnership with the Cities of San Jose and Santa Clara to coordinate location-specific circulation and access within and around the construction areas for all modes, including automobiles, trucks and construction vehicles, bicyclists, pedestrians, and public transportation such as buses and light rail. The CTMP will be organized according to each of the ten major project elements listed from east to west along the alignment: East Tunnel Portal, Alum Rock/28th Street Station, 12th Street Ventilation Structure, Downtown San Jose Station, Diridon Station,ackson Avenue Ventilation Structure, West Tunnel Portal, Newhall Maintenance Facility, and Santa Clara Station, and any offsite improvement locations. The CTMP will be tailored to address the site-specific circumstances and sequencing of construction at each of the ten areas. The CTMP will be developed in partnership with the applicable city and incorporated into all plans and specifications of all contracts through which the BART Extension will be implemented. Critical components of the CTMP are as follows: (a) sequencing schedule depicting the proposed location and timing of construction activities on a routine basis for the duration of the project; (b) proposed phasing of construction, temporary lane and street closures, detours, temporary signals, and street reconstructions, including durations of all of the above and signage requirements that the contractor must follow; (c) truck haul routes, location-specific requirements as applicable. In addition, VTA will work with the cities to minimize access and circulation construction impacts during special events, including Christmas in the Park, parades, and marathons.</td>
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*In Q2 2023 VTA and its contractors began work on the Western Portal. In the quarter, KST provided a revised final CTMP to VTA for review which was then shared with both cities on 4/25. On 6/23 the CTMP was approved by the City of San Jose Council. Following City of San Jose Council approval, the CTMP was approved on 6/28, though the CTMP was revised before CSC approval and thus this is not required by the revised document. In Q2 2023 the City of Santa Clara approved KST’s CTMP for Early Works at the West Portal. In the quarter, KST provided a revised final CTMP to VTA for review which was then shared with both cities on 4/25. On 6/23 the CTMP was approved by the City of San Jose Council. Following City of San Jose Council approval, the CTMP was approved in Q2, though the CTMP was revised before CSC approval and thus this is not required by the revised document.

KST’s C3P CTMP for Early Works at the West Portal also included development of a PayPal Park Event Management Plan & West Portal Traffic Response Plan which were developed with the Stanford Football and San Jose City Council and the City of Santa Clara. In total, there were more than 25 City Coordination meetings in Q2 2023 in which many focused solely on or had agenda topics related to the CTMP development.

KST also advanced discussion of Early Work Construction and Tunneling and Heavy Construction at the San Jose Stations at standing meetings with the City of San Jose and local coordinators.

KST determined the CTMP schedule for the remainder of Contract Package E as follows:

### Mitigation Monitoring & Reporting Program

#### BSV Phase II - Environmental Commitments Record

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<th>2023</th>
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<tr>
<td>Transportation / Education</td>
<td>Implement an Emergency Services Coordination Plan (ESCSP)</td>
<td>MMRP-TRA-CON17-C</td>
<td>Vol-L ROD</td>
<td>Implement an Emergency Services Coordination Plan (ESCSP)</td>
<td>Prepare and implement an Emergency Services Coordination Plan after the environmental process is complete and prior to beginning any construction activity. VTA will work with the cities of San Jose and Santa Clara to develop Master Cooperative Agreements that will direct all coordination and partnering efforts between VTA and the cities prior to and during construction of the BART Extension. One element of the Master Cooperative Agreements with the cities will include the ESCSP. One of the three parts of the ESCSP is the Emergency Services Coordination ESCSP. As local emergency service routes and response times could be affected by construction activities, VTA will coordinate with local fire and police services to develop the ESCSP to minimize this impact. The ESCSP will be incorporated into the plans and specifications of all contracts through which the BART Extension will be implemented. Critical components of coordination are as follows. VTA will inform the local fire and police departments of the construction schedule, and potential lane and road closures. VTA will work with emergency providers to ensure emergency access to residents and businesses and to maintain the cities’ emergency service response times. VTA will work with the local fire and police departments on the detour routes. VTA will provide road signage for detours and provide manual traffic control on detour routes as necessary.</td>
<td>Program-wide</td>
<td>9</td>
<td>VTA CC</td>
<td>MITIGATION COMPLETE</td>
<td></td>
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<tr>
<td>Transportation / Environment</td>
<td>Provide Temporary Replacement Parking at Diridon Station - NePa Only - Mitigation Measure</td>
<td>MMRP-TRA-CON18-C</td>
<td>Vol-L ROD</td>
<td>Provide Temporary Replacement Parking at Diridon Station - NePa Only - Mitigation Measure</td>
<td>Provide Temporary Replacement Parking at Diridon Station - NePa Only - Mitigation Measure. VTA will provide 400 temporary replacement off-street parking spaces during construction to mitigate for parking impacts caused by the BART Extension construction. The temporary replacement parking will be provided prior to the removal of existing parking spaces.</td>
<td>Diridon Station</td>
<td>9</td>
<td>VTA CC</td>
<td></td>
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<tr>
<td>Transportation / Environment</td>
<td>Implement Intersection Improvements at Coleman Avenue and Brokaw Road (for TOD)</td>
<td>MMRP-TRA-CON19-A</td>
<td>Vol-L ROD</td>
<td>Implement Intersection Improvements at Coleman Avenue and Brokaw Road (for TOD)</td>
<td>Implement Intersection Improvements at Coleman Avenue and Brokaw Road (for TOD): Change the signal control for Brokaw Road (the east and west legs of this intersection) from Prototyped Left-Turn phasing to Split Phase. Add a shared through/Left Turn turn lane to the east and west approaches within the existing right-of-way. Change the waiting shared through/Right Turn turn lanes to right-turn only lanes on the east and west approaches, and change the westbound right-turn coding from 20 to an overlaid, indicating that any westbound right turns would be able to turn right on red.</td>
<td>TSD; Santa Clara</td>
<td>9</td>
<td>VTA CC</td>
<td>TOD is not included in CPS through CP4. Other TOD contracts are underway; these measures will be addressed.</td>
<td></td>
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<tr>
<td>Transportation / Environment</td>
<td>Implement Intersection Improvements at Lafayette Street and Lewis Street (for TOD)</td>
<td>MMRP-TRA-CON20-B</td>
<td>Vol-L ROD</td>
<td>Implement Intersection Improvements at Lafayette Street and Lewis Street (for TOD): VTA will construct a dedicated right-turn lane off ramp (the intersection’s westbound approach) to a shared Left/Right Turn lane. Replace the lane control and pavement markings on the off ramp to reflect the new lane usage.</td>
<td>Implement Intersection Improvements at Lafayette Street and Lewis Street (for TOD): Change the signal control at the intersection from Prototyped Left-Turn phasing to Split Phase. Add a shared through/Left Turn turn lane to the east and west approaches within the existing right-of-way. Change the waiting shared through/Right Turn turn lanes to right-turn only lanes on the east and west approaches, and change the westbound right-turn coding from 20 to an overlaid, indicating that any westbound right turns would be able to turn right on red.</td>
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<td>Transportation / Environment</td>
<td>Implement Intersection Improvements at the Intersection of Coleman Avenue and I-880 Southbound Ramps (for TOD)</td>
<td>MMRP-TRA-CON21-C</td>
<td>Vol-L ROD</td>
<td>Implement Intersection Improvements at the Intersection of Coleman Avenue and I-880 Southbound Ramps (for TOD): Change the signal control at the intersection from Prototyped Left-Turn phasing to Split Phase. Add a shared through/Left Turn turn lane to the east and west approaches within the existing right-of-way. Change the waiting shared through/Right Turn turn lanes to right-turn only lanes on the east and west approaches, and change the westbound right-turn coding from 20 to an overlaid, indicating that any westbound right turns would be able to turn right on red.</td>
<td>Implement Intersection Improvements at the Intersection of Coleman Avenue and I-880 Southbound Ramps (for TOD): Change the signal control at the intersection from Prototyped Left-Turn phasing to Split Phase. Add a shared through/Left Turn turn lane to the east and west approaches within the existing right-of-way. Change the waiting shared through/Right Turn turn lanes to right-turn only lanes on the east and west approaches, and change the westbound right-turn coding from 20 to an overlaid, indicating that any westbound right turns would be able to turn right on red.</td>
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</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Air Quality</td>
<td>Implement Dust Control Measures</td>
<td>26</td>
<td>MMRP-AQ-CNST</td>
<td>Vol-L RED</td>
<td>Implement Dust Control Measures per Bay Area Air Quality Management District (BAAQMD)</td>
<td>VTA, ICF: This mitigation measure was included in the CFJ Conformed set under Vol. I General Requirements, Section 05.07.00 Temporary Controls; Notice to Proceed 1 issued 9/22/22. The four contract packages and current design status is as follows: C-P1 Systems - RFP Rev C was issued on 04/15/22. C-P2 Tunnel and Trackwork - This mitigation measure was included in the CFJ Conformed set under Vol. I General Requirements, Section 05.07.00 Temporary Controls; Notice to Proceed 1 issued 9/22/22. C-P3 Newhall Fault/Santa Clara Station - Issued RFP Rev A 9/4/22. C-P4 Stations - Issued Statement of Qualifications in response to their RFP on 9/23/22. This measure has been applied as seen in the mitigation measures MMRP-AQ-CNST-A-02 through A-15 below.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Air Quality</td>
<td>Implement Dust Control Measures</td>
<td>27</td>
<td>MMRP-AQ-CNST</td>
<td>Vol-L RED</td>
<td>Water Exposed Surfaces</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Air Quality</td>
<td>Implement Dust Control Measures</td>
<td>28</td>
<td>MMRP-AQ-CNST</td>
<td>Vol-L RED</td>
<td>Maintain Soil Moisture Content</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
</tr>
</tbody>
</table>
#### Air Quality - Implement Dust Control Measures

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation Status</th>
<th>Quarter</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dust Control Measures</strong></td>
<td>The contractor will cover or moisten all haul trucks that transport soil, sand, or other loose material offsite such that there are no dust emissions.</td>
<td>Program-wide</td>
<td>✓</td>
<td>Q2</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

For Q2 2023, no soil was removed from the site. This measure will be implemented as appropriate in future quarters.

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation Status</th>
<th>Quarter</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dust Control Measures</strong></td>
<td>The contractor will remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day, or more frequently if needed to control track-out during active soil hauling operations. The use of dry power sweeping is prohibited.</td>
<td>Program-wide</td>
<td>✓</td>
<td>Q2</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

For Q2 2023, there was no trackout from active sites, and thus no street sweeping was necessary.

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation Status</th>
<th>Quarter</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dust Control Measures</strong></td>
<td>The contractor will limit all vehicle speeds on unpaved roads to 15 mph.</td>
<td>Program-wide</td>
<td>✓</td>
<td>Q2</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

For Q2 2023, no unpaved roads were utilized at active construction areas. Therefore, this measure will be implemented in future quarters.

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation Status</th>
<th>Quarter</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dust Control Measures</strong></td>
<td>The contractor will complete all paving operations on roadways, driveways, and sidewalks as soon as possible. The contractor will also lay building pads as soon as possible after grading, unless seeding or a soil binder is used.</td>
<td>Program-wide</td>
<td>✓</td>
<td>Q2</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

For Q2 2023, there were no paving operations. Therefore this measure will be implemented in future quarters.
### Mitigation Monitoring & Reporting Program

<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>MWRF Code</th>
<th>Measure #</th>
<th>Measure Description</th>
<th>Location</th>
<th>Implementation</th>
<th>Timeframe</th>
<th>Responsible Party</th>
<th>Compliance Status</th>
<th>Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Post Signage Regarding Dust Complaints</td>
<td>MMRP-8-AQ-CVST-33</td>
<td>Vol. L ROD</td>
<td>Implement Dust Control Measures: The contractor will post a publicly visible sign that includes the contractor’s phone number and name of the person to contact at VTA regarding dust complaints. This person will respond and take corrective action within 24 hours. The BAAQMD phone number will also be visible to ensure compliance with applicable regulations.</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
<td>For Q2 2023, construction has not commenced, therefore this measure will be implemented in future quarters.</td>
<td></td>
</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Suspended Earth Moving Activities When Windy</td>
<td>MMRP-8-AQ-CVST-34</td>
<td>Vol. L ROD</td>
<td>Implement Dust Control Measures: The contractor will suspend all excavation, grading, and/or demolition activities when average wind speeds exceed 20 mph.</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
<td>For Q2 2023, wind speeds did not exceed 20mph during any construction activities, therefore this measure will be implemented in future quarters.</td>
<td></td>
</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Install Windbreaks</td>
<td>MMRP-8-AQ-CVST-35</td>
<td>Vol. L ROD</td>
<td>Implement Dust Control Measures: The contractor will install windbreaks (e.g., fences with screening) on the windward side(s) of disturbed construction areas where feasible. Windbreaks should have 50 percent (maximum) air porosity.</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
<td>For Q2 2023, utility relocation work took place at the Downtown San Jose Primary Headhouse location in a paved parking lot. Vegetative cover is not required in this location, therefore this measure will not apply and will not be implemented in future quarters.</td>
<td></td>
</tr>
<tr>
<td>Air Quality / Implement Dust Control Measures</td>
<td>Plant Vegetation ASAR</td>
<td>MMRP-8-AQ-CVST-36</td>
<td>Vol. L ROD</td>
<td>Implement Dust Control Measures: The contractor will plant revegetation ground cover (e.g., fast germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established.</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
<td>K</td>
<td>For Q2 2023, utility relocation work took place at the Downtown San Jose Primary Headhouse location in a paved parking lot. Vegetative cover is not required in this location, therefore this measure will be implemented in future quarters.</td>
<td></td>
</tr>
</tbody>
</table>
## BSV Phase II - Environmental Commitments Record
### Mitigation Monitoring & Reporting Program

<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>CHRONO</th>
<th>Measure</th>
<th>Source Document</th>
<th>Summary</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality/Implement Dust Control Measures</td>
<td>Implement Dust Control Measures</td>
<td>15</td>
<td>MMRP-AQ-MMCP-AQ-0040</td>
<td>Vol L ROD</td>
<td>Phase Ground Disturbing Activities</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
</tr>
<tr>
<td>Air Quality/Implement Dust Control Measures</td>
<td>Implement Dust Control Measures</td>
<td>16</td>
<td>MMRP-AQ-MMCP-AQ-0040</td>
<td>Vol L ROD</td>
<td>Use Construction Entrances/Exits</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
</tr>
<tr>
<td>Air Quality/Implement Dust Control Measures</td>
<td>Implement Dust Control Measures</td>
<td>17</td>
<td>MMRP-AQ-MMCP-AQ-0040</td>
<td>Vol L ROD</td>
<td>Initial Sediment and Erosion Control Devices</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
</tr>
<tr>
<td>Air Quality/Implement Dust Control Measures</td>
<td>Control Dust During Operation of Concrete Batch Plants</td>
<td>40</td>
<td>MMRP-AQ-MMCP-AQ-0040</td>
<td>Vol L ROD</td>
<td>Control Dust During Operation of Concrete Batch Plants</td>
<td>Program-wide</td>
<td>C</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

**Implement Dust Control Measures:** The contractor will limit the simultaneous occurrence of excavation, grading, and ground disturbing construction activities in the same area. The contractor will phase activities to reduce the amount of disturbed surfaces at any one time.

**Implement Dust Control Measures:** All trucks and equipment, including tires, will use designated construction entrance/exit areas that have been constructed with rock, rumble strips, or other features to prevent dirt from tires.

**Implement Dust Control Measures:** The contractor will include the following control measures in a manner consistent with BAAQMD permitting requirements during the operation of concrete batch plants:

- The construction contractor will ensure that the excess PM10 grain loading for the baghouse will not exceed 0.01 grains per dry standard cubic foot.
- The construction contractor will properly maintain the baghouse and keep the baghouse in good operating condition at all times. The construction contractor will equip the baghouse with a device for measuring the pressure drop across the baghouse.
- The construction contractor will not discharge an air contaminant into the atmosphere for a period of periods aggregating more than 3 minutes in any hour, which is as dark or darker than 2/38.
### BSV Phase II - Environmental Commitments Record
#### Mitigation Monitoring & Reporting Program

<table>
<thead>
<tr>
<th>Measure #</th>
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<th>Mitigation Measure</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Use U.S. Environmental Protection Agency (EPA) Tier 4 or cleaner engines</td>
<td>Use U.S. Environmental Protection Agency (EPA) Tier 4 or cleaner engines</td>
<td>Program-wide</td>
</tr>
<tr>
<td>42</td>
<td>Maintain Construction Equipment</td>
<td>Maintain Construction Equipment</td>
<td>Program-wide</td>
</tr>
<tr>
<td>43</td>
<td>Minimize Idling Times</td>
<td>Minimize Idling Times</td>
<td>Program-wide</td>
</tr>
</tbody>
</table>

#### Source Document
- Use U.S. Environmental Protection Agency (EPA) Tier 4 or cleaner engines: VTA will ensure that all construction contracts stipulate that all off-road, diesel-powered equipment used during construction will be equipped with EPA Tier 4 or cleaner engines, except for specialized construction equipment for which an EPA Tier 4 engine is not available. This mitigation measure assumes emission reductions compared with emissions from an average fleet-wide Tier 2 engine.

#### Implementation

- **Quarterly Mitigation Completed**

### Q2 2023
- **Air Quality**
  - Use U.S. Environmental Protection Agency (EPA) Tier 4 or cleaner engines
  - Maintain Construction Equipment
  - Minimize Idling Times

#### Air Quality/Use U.S. Environmental Protection Agency (EPA) Tier 4 or cleaner engines

#### Source Document
- The four contract packages and current design status is as follows:
  - **CP-1** Systems - RFP Rev C was issued on 04/15/22.
  - **CP-2** Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 1 General Requirements, Sections 01 57 00 Temporary Controls; Limited Notice to Proceed 1 issued 03/11/22.
  - CP-4 Stations - Received the Statement of Qualifications in response to their RFP on 9/3/21.

#### Source Document
- Specifications and contracts require EPA Tier 4 engines for all off-road, diesel-powered equipment used during construction. This measure will be enforced during heavy construction activities.

#### Source Document
- The contractor will maintain and properly tune all construction equipment in accordance with the manufacturer’s specifications. A certified mechanic will check all equipment to determine proper running condition prior to operation.

#### Source Document
- The contractor will ensure that all idling times are minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by California Airborne Toxic Control Measures, Title 17, Section 2345 of the California Code of Regulations). The contractor will provide clear signage for construction workers at all access points.

#### Source Document
- For Q2 2023, construction activities included fiber optic relocation trenching and soils testing within paved parking areas at the Downtown San Jose Primary Headhouse. All equipment used on site was inspected prior to operation, and was maintained and tuned during construction activities.
Air Quality: Use Low-Sulfur Fuel

Use Low-Sulfur Fuel: The contractor will use low-sulfur fuel (diesel with 15 parts per million or less) in all construction equipment.

Air Quality: Use Equipment Meeting ARB Certification Standards

Ensure Heavy-Duty Diesel Trucks Will Comply with EPA Emissions Standards:

 Ensure Heavy-Duty Diesel Trucks Will Comply with EPA Emissions Standards: All contractors will use equipment that meets ARB’s most recent certification standard for off-road heavy-duty diesel engines.

Ensure Heavy-Duty Diesel Trucks Will Comply with EPA Emissions Standards:

Locate Construction Areas Away from Sensitive Receptors:

Locate Construction Areas Away from Sensitive Receptors: The contractor will isolate all construction equipment and staging areas away from sensitive receptors and fresh-air intake vents to buildings and air conditioners, where feasible.
### Mitigation Measures

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Source Document</th>
<th>Implementation</th>
<th>2023 Q4</th>
<th>Quarter Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure #</td>
<td>Source Document</td>
<td>Implementation</td>
<td>2023 Q4</td>
<td>Quarter Mitigation Completed</td>
</tr>
</tbody>
</table>

#### Air Quality: Use Low-Volatile Organic Compound (VOC) Coatings

- **Measure #**: 48
- **Source Document**: MMRP Code 4-48
- **Implementation**: Program-wide
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Biological Resources and Wetlands: Avoid Nesting Bird Sessions

- **Measure #**: 49
- **Source Document**: MMRP Code 4-49
- **Implementation**: Program-wide
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Biological Resources and Wetlands: Conduct Preconstruction/Predisturbance Surveys for Nesting Birds

- **Measure #**: 10
- **Source Document**: MMRP Code 1-10
- **Implementation**: Program-wide
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Biological Resources and Wetlands: Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures - Trees

- **Measure #**: 15
- **Source Document**: MMRP Code 1-15
- **Implementation**: Program-wide
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Conduct Preconstruction/Predisturbance Surveys for Nesting Birds:

- **To the extent feasible, the contractor will schedule all construction (particularly tree removal and pruning) activities to avoid the bird nesting season (January 1–August 31). If such activities are scheduled to take place outside the nesting season, the contractor will assess the effects on nesting birds, including raptors, protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The nesting season for most birds in Santa Clara County typically extends from January 1 through August 31, although some birds (e.g., raptors and hummingbirds) may nest as early as January 1 if a period of favorable weather persists.**

#### Conduct Preconstruction/Predisturbance Surveys for Nesting Birds:

- **Program-wide**: c
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures - Trees:

- **Program-wide**: c
- **2023 Q4**: c
- **Quarter Mitigation Completed**: c

#### Use Low-Volatile Organic Compound (VOC) Coatings:

- **All contractors will use low-VOC (i.e., after the limits specified by the Architectural Coatings [VOC content is limited to 100 grams per liter for flat coating and 150 grams per liter for non-flat coating].**

#### Mitigation Measures:

- **Low-Volatile Organic Compound (VOC) Coatings**: All contractors will use low-VOC coatings that are beyond ABAGMD requirements (i.e., Regulation 6, Rule 3 - Architectural Coatings). VOC content is limited to 100 grams per liter for flat coating and 150 grams per liter for non-flat coating.

#### Biological Resources and Wetlands:

- **Avoid Nesting Bird Sessions**: To the extent feasible, the contractor will schedule all construction (particularly tree removal and pruning) activities to avoid the bird nesting season (January 1–August 31). If such activities are scheduled to take place outside the nesting season, the contractor will assess the effects on nesting birds, including raptors, protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The nesting season for most birds in Santa Clara County typically extends from January 1 through August 31, although some birds (e.g., raptors and hummingbirds) may nest as early as January 1 if a period of favorable weather persists.

#### Biological Resources and Wetlands:

- **Conduct Preconstruction/Predisturbance Surveys for Nesting Birds**: It is not possible to schedule construction activities that involve tree removal or pruning between September 1 and January 1, then a qualified biologist will conduct preconstruction/predisturbance surveys for nesting birds to ensure that no nests will be disturbed during construction activities. These surveys will be conducted no more than 48 hours prior to the initiation of construction. During such surveys, a qualified biologist will inspect all potential nesting habitats (e.g., trees, shrubs, grasslands, and buildings) in accessible areas within 100 feet of impact areas for raptor nests and within 50 feet of impact areas for nests of non-raptors. If an active nest (e.g., a nest with eggs or young, or any completed raptor nest) is found sufficiently close to work areas to be disturbed by these activities, the biologist, in consultation with the California Department of Fish and Wildlife (CDFW), will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 300 feet for raptors and 50 to 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed as a result of construction activities.

#### Biological Resources and Wetlands:

- **Conduct Preconstruction/Predisturbance Surveys for Nesting Birds**: If it is not possible to schedule construction activities that involve tree removal or pruning between September 1 and January 1, then a qualified biologist will conduct preconstruction/predisturbance surveys for nesting birds to ensure that no nests will be disturbed during construction activities. These surveys will be conducted no more than 48 hours prior to the initiation of construction. During such surveys, a qualified biologist will inspect all potential nesting habitats (e.g., trees, shrubs, grasslands, and buildings) in accessible areas within 100 feet of impact areas for raptor nests and within 50 feet of impact areas for nests of non-raptors. If an active nest (e.g., a nest with eggs or young, or any completed raptor nest) is found sufficiently close to work areas to be disturbed by these activities, the biologist, in consultation with the California Department of Fish and Wildlife (CDFW), will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 300 feet for raptors and 50 to 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed as a result of construction activities.

#### Biological Resources and Wetlands:

- **Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Trees**: If tree removal or trimming cannot be conducted between September 15 and October 30, a qualified biologist will examine trees for suitable bat-roosting habitat before tree removal or trimming.

#### Biological Resources and Wetlands:

- **Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Trees**: If tree removal or trimming cannot be conducted between September 15 and October 30, a qualified biologist will examine trees for suitable bat-roosting habitat before tree removal or trimming. The biologist will identify high-quality habitat features (e.g., large tree cavities, basalt holes, hollows or peeling bark, larger insects, palm trees with intact thatch) and search the area around these features for bats and their signs (e.g., guano, cactus insect parts, roosting). Riparian woodland, orchards, and stands of mature broadleaf trees are considered potential habitat for solitary foliag-roosting bat species. Because signs of bat use are not easily found, and trees cannot be completely surveyed for bat roosts, VTA will implement the protective measures listed below (in MMRP A4-000 C-02 through C-06) for trees containing high-quality habitat features.

#### Biological Resources and Wetlands:

- **Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Trees**: If tree removal or trimming cannot be conducted between September 15 and October 30, a qualified biologist will examine trees for suitable bat-roosting habitat before tree removal or trimming. The biologist will identify high-quality habitat features (e.g., large tree cavities, basalt holes, hollows or peeling bark, larger insects, palm trees with intact thatch) and search the area around these features for bats and their signs (e.g., guano, cactus insect parts, roosting). Riparian woodland, orchards, and stands of mature broadleaf trees are considered potential habitat for solitary foliag-roosting bat species. Because signs of bat use are not easily found, and trees cannot be completely surveyed for bat roosts, VTA will implement the protective measures listed below (in MMRP A4-000 C-02 through C-06) for trees containing high-quality habitat features.
Mitigation Monitoring & Reporting Program

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation</th>
<th>Mitigation Monitor</th>
<th>Compliance Status</th>
<th>Quarter Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures: Trees</td>
<td>Program-wide</td>
<td>C</td>
<td>C</td>
<td>VTAC</td>
<td>K</td>
</tr>
<tr>
<td>Biological Resources and Wetlands</td>
<td>No Disturbance to Bat Roosting Trees Between April 1 and September 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Resources and Wetlands</td>
<td>The contractor will not remove or disturb trees providing bat roosting habitat between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Resources and Wetlands</td>
<td>The contractor will remove trees in pieces rather than felling an entire tree.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Resources and Wetlands</td>
<td>The contractor will limit the removal of trees that provide bat roosting habitat to the maternity period (April 1 to September 15).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Biological Resources and Wetlands</td>
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<td></td>
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</tr>
<tr>
<td>Biological Resources and Wetlands</td>
<td>The contractor will limit the removal of trees that provide bat roosting habitat to the maternity period (April 1 to September 15).</td>
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</tbody>
</table>
### Biological Resources and Wetlands / Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Trees

#### Mitigation Measure
Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Trees

**Summary:** If a maternity roost is found, whether solitary or colonial, the contractor will ensure that roost remains undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active.

**Implementation:**
- **Location:** Program-wide
- **Timeframe:** Post-construction
- **Compliance Status:** VTAC

#### Mitigation Measure
Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Trees

**Summary:** If avoidance of non-maternity roost trees is not possible, and tree removal or trimming must occur between October 30 and August 31, qualified biologists will monitor tree trimming/removal of the habitat. If possible, tree trimming or removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to trimming or removal of trees providing suitable roosting habitat, the contractor will shake each tree gently and allow several minutes to pass before felling trees or removing limbs to allow bats time to arouse and leave the tree. Biologists should search downed vegetation for dead and/or injured bats. The contractor will report the presence of dead or injured bats that are species of special concern to CDFW. The biologist will prepare a biological monitoring report, which will be provided to VTA and CDFW.

**Implementation:**
- **Location:** Program-wide
- **Timeframe:** Post-construction
- **Compliance Status:** VTAC

#### Mitigation Measure
Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Buildings

**Summary:** Prior to the building removal or demolition, qualified biologists will conduct daytime surveys to assess the buildings’ potential bat roosting habitat, and to look for bats and bat signs. Qualified biologists will have knowledge of the natural history of the species that could occur and sufficient experience determining bat occupancy in buildings and other survey techniques. The biologists will examine both the inside and outside of the buildings for potential roosting habitat, as well as routes of entry to the buildings. The biologists will note and map on drawings of the buildings the locations of any roosting bats, signs of bat use, and entry and exit points. The biologists will also photograph roost sites as feasible. The habitat assessment surveys should be conducted as far in advance of demolition as possible to allow time for planning and coordinating with CDFW, should bats be found.

**Implementation:**
- **Location:** Program-wide
- **Timeframe:** Post-construction
- **Compliance Status:** VTAC

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## Summary
Depending on the results of the habitat assessment, VTA and its representatives will take the following steps (MWRF BIO-MNT-C-08 through C-18):

1. **Avoidance:** No maternity roost locations were impacted during this work, therefore this measure will be implemented in future quarters.
2. **Tree Removal:**
   - For Q2 2023, construction activities included fiber optic installation trenching and cuts testing within paved parking areas at the Downtown San Jose Primary Headhouse. No trees or maternity roost locations were impacted during this work, therefore this measure will be implemented in future quarters.

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### Mitigation Monitoring & Reporting Program

- **BSV Phase II - Environmental Commitments Record
  - **Mitigation Monitoring & Reporting Program**
  - **Quarter Mitigation Completed**
  - **Source Document**

  - **Mitigation Measure**
  - **Location**
  - **Implementation**
  - **Compliance Status**
  - **Quarter**

**Note:** The four contract packages and current design status is as follows:
- **CP-1 Systems - RFP Rev C** was issued on 04/15/22.
- **CP-2 Tunnel and Trackwork - This mitigation measure was included in the CFS Conformed set under Vol 1 General Requirements, Sections 01 35 71. Biological Resources Requirements; Limited Notice to Proceed 1 issued 9/23/21.
- **CP-4 Stations - Issued the Statement of Qualifications in response to their RFP on 6/09/22.
- For Q2 2023, construction activities included fiber optic installation trenching and cuts testing within paved parking areas at the Downtown San Jose Primary Headhouse. No trees or maternity roost locations were impacted during this work, therefore this measure will be implemented in future quarters.
Biological Resources and Wetlands / Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures - Buildings | Biological Resources and Wetlands | Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures - Buildings | MMRP Code | Measure # | Summary | Mitigation Measure | Location | Implementation | 2023 | Quarter

**Environmental Document Chapter / Mitigation Topic** | **Mitigation Topic** | **MMRP Code** | **Measure #** | **Source Document** | **Mitigation Measure** | **Location** | **Implementation** | **Program-wide** | **VTA/C** | **IC**

| 58 | MMRP-BIO-CNST | 19 | Vol-L ROD | Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Buildings: If the building(s) can be adequately assessed (i.e., all areas of the building can be examined) and no habitat or limited habitat for roosting bats is present and no signs of bat use are present, qualified biologists will conduct a preconstruction survey of the interior and exterior of the building(s) within 24 hours of demolition. If bats are found roosting during the preconstruction survey, biologists will contact CDFW for direction on how to proceed. | Program-wide | 0 | C | VTA/C | IC

| 59 | MMRP-BIO-CNST | 19 | Vol-L ROD | Conduct Roosting Bat Surveys Within 24 Hours of Building Demolition Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Buildings: If moderate or high potential habitat is present but there are no signs of bat use, VTA will implement measures under the guidance of a qualified bat biologist to exclude bats from using the building(s) as a roost site, such as sealing off entry points. Prior to installing exclusion measures, qualified biologists will re-survey the building(s) to ensure that no bats are present. Additionally, biologists will conduct at least one preconstruction survey of the interior and exterior of the building(s) within 24 hours of demolition to confirm that no bats are present. If bats are found roosting during the preconstruction survey, biologists will contact CDFW for direction on how to proceed. | Program-wide | 0 | C | VTA/C | IC

| 60 | MMRP-BIO-CNST | 19 | Vol-L ROD | Implement Roosting Bat Protective Measures Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures - Buildings: If moderate or high potential habitat is present and bats or bat sign are observed, or if exclusion measures are not installed as described above, or the building(s) provides suitable habitat but could not be adequately assessed, VTA will implement the following protective measures (MMRP-BIO-CNST-C-11 through C-13). | Program-wide | 0 | C | VTA/C | IC

For Q2 2023, no buildings were removed or demolished, therefore this measure will be implemented in future quarters.
## BSV Phase II - Environmental Commitments Record
### Mitigation Monitoring & Reporting Program

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*Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures- Buildings: Biological resources and wetlands* Conduct Preconstruction Surveys for Roosting Bat and implement Protective Measures- Buildings: Biologists will conduct follow-up surveys to determine if bats are still present. If species identification is required by CDFW, biologists will use night vision goggles and active acoustic monitoring using full-spectrum bat detectors during the surveys. VTA will determine if the species present (if determined), and species identification are required by CDFW to develop a plan to discourage or exclude bat use prior to demolition. The plan may include installing exclusion measures or using light or other means to deter bats from using the building to roost. Conduct Roosting Bat Surveys Within 24 Hours of Building Demolition: Biologists will conduct a preconstruction survey of the interior and exterior of the building within 24 hours of demolition.
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<td>Only Remove Roosting Building Habitat Prior to Hibernation</td>
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Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Buildings: Depending on the species of bats present, size of the bat roost, and timing of the demolition, additional protective measures may be necessary. VTA will determine appropriate measures in coordination with CDFW. These measures may include those listed below (MMRP-BIO-CNST-C-15 through C-17).

For Q2 2023, no buildings were removed or demolished, therefore this measure will be implemented in future quarters.

Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Buildings: To avoid effects on maternity colonies or hibernating bats, the contractor will not demolish a building while bats are present, generally between April 1 and September 15 (maternity season) and from October 30 to March 1 (hibernation). For Q2 2023, no buildings were removed or demolished, therefore this measure will be implemented in future quarters.

Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures- Buildings: The contractor will remove only roosting habitat following the maternity season and prior to hibernation, generally between September 15 and October 30, unless the contractor first installs exclusionary devices (as described below). The contractor may use other measures, such as using lights to deter bat roosting, if developed in coordination with and approved by CDFW. For Q2 2023, no buildings were removed or demolished, therefore this measure will be implemented in future quarters.
### Mitigation Monitoring & Reporting Program

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<td>Protect Riparian Habitat</td>
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</tbody>
</table>

**Conduct Preconstruction Surveys for Roosting Bat and Implement Protective Measures - Buildings:**

The contractor will install exclusion devices before the maternity season and prior to hibernation, generally from March 1–30 or September 15–October 30 to preclude bats from occupying a roost site during demolition. Exclusionary devices will only be installed by or under the supervision of an experienced bat biologist.

**Provide Compensatory Mitigation for Roosting Bat Habitat:**

CDFW may require compensatory mitigation for the loss of roosting habitat depending on the species present and size of the bat roost. Compensation, if required, will be determined in consultation with CDFW, and may include construction and monitoring of suitable replacement habitat on or near the BART Extension site.

**Protect Riparian Habitat:**

VTA will design all BART Extension facilities to avoid temporary and permanent adverse effects on riparian habitat. VTA will signify as environmentally sensitive areas on plans all riparian forest areas identified along the Guadalupe River and Los Gatos Creek and will ensure such habitat is marked with protective orange fencing or flagging during construction to avoid disturbance or accidental intrusion by workers or equipment. Contractors will not use night lighting for construction activities and staging in the riparian area.

For Q2 2023, no buildings were removed or demolished, therefore this measure will be implemented in future quarters.
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<td>Conduct Preconstruction Burrowing Owl Surveys</td>
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<td>MMRP-BIO-CNST-F-02</td>
<td>Implement Burrowing Owl Measures</td>
<td>Newhall Maintenance Facility</td>
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<td>MMRP-BIO-CNST-F-03</td>
<td>Conduct Preconstruction Burrowing Owl Surveys</td>
<td>Newhall Maintenance Facility</td>
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</table>

### Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility):

**If evidence of burrowing owls is found during the breeding season (February 1–August 31), VTA will implement the procedures described below (MMRP-BIO-CNST-F-02 to F-15).** This mitigation measure incorporates survey, avoidance, and minimization guidelines taken directly from Condition 15 of the SCVHP (SCVHA 2012).

- **If evidence of burrowing owls is found during the breeding season (February 1–August 31), VTA will avoid all nest sites that could be disturbed by construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes burrowing owls, VTA will implement the procedures described below (MMRP-BIO-CNST-F-02 to F-15). This mitigation measure incorporates survey, avoidance, and minimization guidelines taken directly from Condition 15 of the SCVHP (SCVHA 2012).**

- **In order to allow covered activities to go forward in burrowing owl habitat, VTA will employ avoidance measures described below to ensure that direct take does not occur.** The biologist will conduct a field investigation to identify and map potential nesting substrate. Nesting substrate generally includes flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, or nettles). If potential nesting substrate is found, VTA may revise the construction staging areas to avoid all areas within a 250-foot buffer around the potential nesting habitat, and biologists will conduct appropriate surveys. If VTA chooses not to avoid the potential nesting habitat and the 250-foot buffer, biologists will conduct additional nest surveys.

### Conduct Preconstruction Tricolored Blackbird Nesting Surveys and Determine Appropriate Action:

**Conduct Preconstruction Tricolored Blackbird Nesting Surveys and Determine Appropriate Action:** There are no known tricolored blackbird nesting colonies in the BART Extension area within the last 5 years. However, to avoid direct effects of construction activities on potential nesting tricolored blackbirds, VTA will implement the following procedures. This mitigation measure incorporates survey, avoidance, and minimization guidelines taken directly from Condition 17 of the Santa Clara Valley Habitat Plan (SCVHP) (Santa Clara County 2012).

- **A qualified biologist will conduct a field investigation to identify and map potential nesting substrate. Nesting substrate generally includes flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, or nettles). If potential nesting substrate is found, VTA may revise the construction staging areas to avoid all areas within a 250-foot buffer around the potential nesting habitat, and biologists will conduct appropriate surveys. If VTA chooses not to avoid the potential nesting habitat and the 250-foot buffer, biologists will conduct additional nest surveys.**

Note that these measures only apply at the Newhall Maintenance Facility, which is the only area on the project with burrowing owl habitat.
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<td>Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility): Avoidance Measures; Breeding Season (February 1–August 31)</td>
<td>74 MMRP-BIO/MMRP- CNST-</td>
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<td>Construction inside 250-foot Owl Buffer</td>
<td>Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action - Avoidance Measures: Breeding Season (February 1–August 31) - Construction may take place inside of the 250-foot non-disturbance buffer during the breeding season if the following occur: • The nest is not disturbed, and • VTA develops an avoidance, minimization, and monitoring plan that will be reviewed by CDFW, USFWS, and SCVHA prior to construction based on the following criteria (MMRP-BIO/MMRP-CNST-74 through 78): Newhall Maintenance Facility</td>
<td>b c</td>
<td>VTA/C</td>
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<td>Q2 2023, this measure did not apply because no BUOW surveys were required.</td>
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<td>Owl Avoidance and Minimization Plan Approval</td>
<td>Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action - Avoidance Measures: Breeding Season (February 1–August 31) - CDFW, USFWS, and the SCVHA approves the avoidance and minimization plan provided by VTA. CDFW, USFWS, and SCVHA will have 21 calendar days to respond to a request from VTA to review the proposed construction monitoring plan. If these parties do not respond within 21 calendar days, it will be presumed that they concur with the proposal and work can commence. Newhall Maintenance Facility</td>
<td>b c</td>
<td>VTA/C</td>
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<td>Q2 2023, this measure did not apply because no BUOW surveys were required.</td>
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<td>Determine Baseline Owl Behavior</td>
<td>Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action - Avoidance Measures: Breeding Season (February 1–August 31) - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction) Newhall Maintenance Facility</td>
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<td>b c</td>
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<td>Q2 2023, this measure did not apply because no BUOW surveys were required.</td>
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MMPR Code | Measure # | Source Document | Summary | Mitigation Measure | Location | Implementation 1 | Implementation 2 | Implementation 3 | Responsible Authority 1 | Responsible Authority 2 | Responsible Authority 3 | Quarter Mitigation Completed
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Biological Resources and Wetlands/ Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility): Assistance Measures: Breeding Season (February 1–August 31) | Biological Resources and Wetlands | Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility): Assistance Measures: Breeding Season (February 1–August 31) | 78 | MMPR-BIO-CNST-09 | Vol-L ROD | Cease Construction if Owl Behavior Changes | Newhall Maintenance Facility | 0 | 0 | VTA/C | K | 02 2023, this measure did not apply because no BUOW surveys were required.

Biological Resources and Wetlands/ Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility): Assistance Measures: Breeding Season (February 1–August 31) | Biological Resources and Wetlands | Conduct Preconstruction Burrowing Owl Surveys and Determine Appropriate Action (for Newhall Maintenance Facility): Assistance Measures: Breeding Season (February 1–August 31) | 79 | MMPR-BIO-CNST-10 | Vol-L ROD | Excavate Owl Burrow to Prevent Reoccupation | Newhall Maintenance Facility | 0 | 0 | VTA/C | K | 02 2023, this measure did not apply because no BUOW surveys were required.

Biological Resources and Wetlands/ Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action: Assistance Measures: Non-Breeding Season (September 1–January 31) | Biological Resources and Wetlands | Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action: Assistance Measures: Breeding Season (September 1–January 31) | 82 | MMPR-BIO-CNST-11 | Vol-L ROD | Establish Buffers Around Occupied Burrows | Newhall Maintenance Facility | 0 | 0 | VTA/C | K | 02 2023, this measure did not apply because no BUOW surveys were required.

Biological Resources and Wetlands/ Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action: Assistance Measures: Non-Breeding Season (September 1–January 31) | Biological Resources and Wetlands | Conduct Preconstruction Burrowing Owl Surveys at Newhall Maintenance Facility and Determine Appropriate Action: Assistance Measures: Breeding Season (September 1–January 31) | 83 | MMPR-BIO-CNST-12 | Vol-L ROD | Determine Baseline Owl Behavior | Newhall Maintenance Facility | 0 | 0 | VTA/C | K | 02 2023, this measure did not apply because no BUOW surveys were required.
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<td>86</td>
<td>Program-wide</td>
<td>Implement Programmatic Agreement and Archaeological Resource Treatment Plan: A Programmatic Agreement (PA) and a supporting Archaeological Resource Treatment Plan (ARTP) have been developed and will be executed in consultation with interested Native Americans, the California State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, the California Department of Transportation (CalTrans) District 4, the Cities of San Jose and Santa Clara, the Peninsula Corridor Joint Powers Board, and the South Bay Historical Railroad Society. The PA and ARTP will be implemented prior to and during construction of the BART Extension.</td>
<td>VTA</td>
<td>IC</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Geology, Soils, and Seismicity</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards</td>
<td>GEO</td>
<td>83</td>
<td>Program-wide</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards: (2) ARTP. Extension stations, system facilities, or portions of the alignment are determined to be in areas exceeding pertinent codes and standards, including the California Building Code and BART Facilities Standards Design Criteria for liquefaction, VTA will implement the following methods (MMRP-GEODENST-A-06): through A -60) during construction to minimize the potential impacts. VTA will determine the exact methods to reduce impacts from liquefaction during final engineering.</td>
<td>VTA</td>
<td>IC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geology, Soils, and Seismicity</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards</td>
<td>GEO</td>
<td>84</td>
<td>Program-wide</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards: (3) ARTP. The four contract packages and current design status is as follows: C-1 Systems - RFP Rev C was issued on 04/11/22. C-2 Tunnel and Trackwork - This mitigation measure was included in the CP3 Conformed set under Vol 2 Design Criteria Manual (DCM) Section 11.6 Seismic; limited Notice to Proceed 1 issued 6/09/22. C-3 Newhall Yard/Santa Clara Station - Issued RFP Rev A 5/6/22. C-4 Stations - received the Statement of Qualifications in response to their RFO on 9/23/21.</td>
<td>VTA</td>
<td>IC</td>
<td></td>
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</tbody>
</table>

VTA is implementing the Archaeological Resources Treatment Plan (ARTP). Results will be reported to all Consulting Parties (CPs) to the Programmatic Agreement (PA) Annual Report. In Q2 2023, archaeological planning and investigations is ongoing.
<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>Mitigation Measure</th>
<th>Implementation 2023</th>
</tr>
</thead>
</table>
| Geology, Soils, and Seismicities/ Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Support Parking Garages on Piles | Program-wide D C P VTA/C: **The four contract packages and current design status is as follows:**  
CP-1 Systems - RFP Rev C was issued on 04/15/22.  
CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 2 Design Criteria Manual (DCM) Sections 11.6 Geotechnical and 11.13 Seismic Design; limited Notice to Proceed 1 issued 6/09/22.  
CP-4 Stations - received the Statement of Qualifications in response to their RFQ on 9/23/21.  
In Q2 2023, design for liquefaction hazards is underway. |
| Geology, Soils, and Seismicities/ Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Integrate Subgrade Improvements for Shallow Foundations | Program-wide D C P VTA/C: **The four contract packages and current design status is as follows:**  
CP-1 Systems - RFP Rev C was issued on 04/15/22.  
CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 2 Design Criteria Manual (DCM) Sections 11.9 Tunnels & Underground Structures; limited Notice to Proceed 1 issued 6/09/22.  
CP-4 Stations - received the Statement of Qualifications in response to their RFQ on 9/23/21.  
In Q2 2023, design for liquefaction hazards is underway. |
| Geology, Soils, and Seismicities/ Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards | Mitigate Liquefaction-Related Uplift of Underground Facilities | Program-wide D C P VTA/C: **The four contract packages and current design status is as follows:**  
CP-1 Systems - RFP Rev C was issued on 04/15/22.  
CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 2 Design Criteria Manual (DCM) Sections 11.9 Tunnels & Underground Structures; limited Notice to Proceed 1 issued 6/09/22.  
CP-4 Stations - received the Statement of Qualifications in response to their RFQ on 9/23/21.  
In Q2 2023, design for liquefaction hazards is underway. |
<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>MWRR Code</th>
<th>Measure #</th>
<th>Source Document</th>
<th>Summary</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation</th>
<th>2023 QTR</th>
<th>Quarter Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology, Soils, and Seismicity/ Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards</td>
<td>Geology, Soils, and Seismicity</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards</td>
<td>58</td>
<td>MNMRP-CNST-GEOL-CONST</td>
<td>Consider Other Liquefaction Hazard Mitigation Measures</td>
<td>Incorporate Design Specifications to Minimize Effects from Liquefaction Hazards</td>
<td>Program-wide</td>
<td>D</td>
<td>F</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

Program-wide

**BSV Phase II - Environmental Commitments Record**

**Mitigation Monitoring & Reporting Program**

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In Q2 2023, design for liquefaction hazards is underway.

In Q2 2023, VTA did not perform surveys at any properties.
### Surveys for Utilities

#### Implement Preconstruction Condition Surveys for Utilities

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Description</th>
<th>Location</th>
<th>Timeframe: Design (D)</th>
<th>Timeframe: Construction (C)</th>
<th>Timeframe: Post-construction (P)</th>
<th>Responsible Party</th>
<th>Compliance Status</th>
<th>Quarter Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Ground Surface during Tunneling Activities</td>
<td>The contractor will conduct ground surface monitoring prior to and after tunneling by licensed land surveyors. The contractor will mount survey monitoring points on potentially affected structures and representative historic buildings, including the most susceptible structures, select utilities susceptible to settlement, and in representative locations immediately adjacent to streams within the settlement trough along the tunnel alignment. The contractor must obtain approval from VTA and the Historic QP to install any monitoring devices or crack gauges on or in historic buildings that require alteration of the building. The contractor will provide settlement monitoring data to VTA immediately upon completion of the field survey and use the data to assist in minimizing adverse effects along the tunnel alignment.</td>
<td>Program-wide</td>
<td>O</td>
<td>O</td>
<td>VTAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Settlement Effects around Cut-and-Cover Excavations</td>
<td>For the cut and cover tunnels and stations construction has not commenced.</td>
<td>Program-wide</td>
<td>O</td>
<td>O</td>
<td>VTAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Ground Surface during Tunneling Activities</td>
<td>The contractor will conduct ground surface monitoring prior to and after tunneling by licensed land surveyors. The contractor will mount survey monitoring points on potentially affected structures and representative historic buildings, including the most susceptible structures, select utilities susceptible to settlement, and in representative locations within the limit of influence around the cut-and-cover excavations to monitor any effects of settlement. The contractor must obtain approval from VTA and the Historic QP to install any monitoring devices or crack gauges on or in historic buildings that require alteration of the building. The contractor will provide settlement monitoring data to VTA immediately upon completion of the field survey. The data will be used to direct real-time modifications to shoring and ground treatment practices and procedures as appropriate to minimize adverse effects within the limit of influence around the cut-and-cover excavations.</td>
<td>Program-wide</td>
<td>O</td>
<td>O</td>
<td>VTAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Presurization Condition Surveys for Utilities</td>
<td>The contractor will conduct presurization condition surveys of utilities deemed to be potentially at risk due to surface settlement or ground movement at BART stations and TCSB sites. The contractor will monitor major utilities deemed to be at risk during construction and will coordinate with utility providers prior to installation of utility monitoring points.</td>
<td>Program-wide</td>
<td>O</td>
<td>O</td>
<td>VTAC</td>
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</tr>
</tbody>
</table>
### Mitigation Monitoring & Reporting Program

#### BSV Phase II - Environmental Commitments Record

<table>
<thead>
<tr>
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<th>Mitigation Measure</th>
<th>Implementation</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology, Soils, and Seismicity/ Minimize Excavation Bottom Failure Impacts</td>
<td>Geology, Soils, and Seismicity</td>
<td>Minimize Excavation Bottom Failure Impacts</td>
<td>Program-wide</td>
<td>P</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Geology, Soils, and Seismicity/ Minimize Disturbance of Sensitive Deposits at the Excavation Subgrade</td>
<td>Geology, Soils, and Seismicity</td>
<td>Minimize Disturbance of Sensitive Deposits at the Excavation Subgrade</td>
<td>Program-wide</td>
<td>C</td>
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</tbody>
</table>

**Summary:***

- **Minimize Excavation Bottom Failure Impacts:** If excavation bottom fails due to bottom heave, piping, or blow-out, the contractor will implement the following measures:
  - Remove water found in the pervious sand layer via dewatering.
  - Install deep sheeting. The sheet pile may also function as a cut-off to prevent sand boiling at the bottom of excavation due to excessive hydrostatic pressure within the loose soils.
  - Based on the boring logs, encroaching of the loose soils at the foundation subgrade may be anticipated at isolated locations for excavation of the stations. Deeper shoring may be required to penetrate through the aquifer to prevent the occurrence of the sand boiling condition. Deep soil mixing may have to be considered under this condition if the feasibility of the shoring sheet pile through the dense to very dense sand at depths is a geotechnical concern due to the vibration and/or noise impact on the surrounding environment.

- **Minimize Disturbance of Sensitive Deposits at the Excavation Subgrade:** In areas where clay and saturated sand deposits are sufficiently disturbed during construction activities at the bottom of an excavation, soil and/or noise impact on the surrounding environment.

- **Incorporate Design Specifications to Minimize Effects from Expansive Soils:** VTA will ensure that the following specifications are incorporated into the BART Extension’s final design when encountering expansive soils:
  - Deepen foundations to below the zone of moisture fluctuation.
  - Use new foundations that are designed to reduce the deflections associated with expansive soil.
  - Design perimeter footings to a minimum depth of 24 inches below the lowest adjacent grade to reduce the impact from the uplift pressure in expansive soils.
  - For any expansive soil in the upper 18 inches of building pads, lime treat or replace with low to reduce the impact from the uplift pressure in expansive soils.
  - Use moisture barriers to minimize the variation of change in the moisture content within the non-expansive soil with a Plasticity Index of 12 or less.
  - Place a stabilizing geotextile fabric or a geogrid at the bottom of the over-excavation.
  - Overlap the ends of the geotextile fabric on top of the bridging material for a minimum distance of 2 feet.

**Quarter Mitigation Completed:**

- **Phase I Tunnel and Trackwork:** This mitigation measure was included in the CP2 Conformed set under Vol 1 General Requirements, Section 01 74 25 Contaminant Management, Vol 2 Design Criteria Manual (DCM) Sections 11.6 Geotechnical and 11.15 Geometric Design; limited Notice to Proceed 1 issued 6/09/22. CP-4 Stations - received the Statement of Qualifications in response to their RFQ on 8/9/2021.

- **CP-2 Tunnel and Trackwork:** This mitigation measure was included in the CP2 Conformed set under Vol 1 General Requirements, Section 01 74 25 Contaminant Management, Vol 2 Design Criteria Manual (DCM) Sections 11.6 Geotechnical and 11.15 Geometric Design; limited Notice to Proceed 1 issued 6/09/22. CP-4 Stations - received the Statement of Qualifications in response to their RFQ on 8/9/2021.

- **CP-4 Stations:** design for minimization for disturbance of sensitive deposits is underway.
<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>GHG-D</th>
<th>MMRP Code</th>
<th>Summary</th>
<th>Implementation</th>
<th>Location</th>
<th>Quarter Mitigation Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology, Soils, and Sediments/Stop Construction if Paleontological Resources are Discovered and Determine Appropriate Action</td>
<td>Geology, Soils, and Sediments</td>
<td>MMRP- GEO-D</td>
<td>Vol-L ROD</td>
<td>Stop Construction if Paleontological Resources are Discovered and Determine Appropriate Action</td>
<td>Program-wide</td>
<td>B</td>
<td>VTA/C</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions/Participate in Food Waste Programs (for TOJD)</td>
<td>Greenhouse Gas Emissions</td>
<td>MMRP- GHG-A</td>
<td>Val-L ROD</td>
<td>Participate in Food Waste Programs (TOJD)</td>
<td>TOJD</td>
<td>N</td>
<td>VTA/C</td>
</tr>
</tbody>
</table>

The contract packages and current design stages are as follows:
- For L System: RFP Rev C was issued on 04/15/22.
- C2 Tunnel and Trackwork - This mitigation measure was included in the CFS Conformed set under V1-General Requirements. Sections 03.35.70 Environmental Requirements and 01.35.75 Cultural Resources Requirements. Limited Notice to Proceed 1 issued 04/06/22.
- C4 Stations - received the Statement of Qualifications in response to their RFP on 8/2/22.

For Q2 2023, construction activities included fiber optic excavation trenching and cable routing within paved-parking areas at the Downtown San Jose Primary Headhouse. No paleontological resources were discovered during these construction activities.
BSV Phase II - Environmental Commitments Record
Mitigation Monitoring & Reporting Program

**Noise and Vibration/ Locate Equipment as Far as Feasible from Sensitive Sites**

**Mitigation Measure:** Locate Equipment as Far as Feasible from Sensitive Sites

- **Description:** The contractor will locate stationary equipment, such as generators and compressors, as far as feasible from noise and vibration sensitive sites, and will acoustically treat such equipment. The contractor will also locate grout batching plants, grout skids, mixers, pumps, diesel pumping equipment, and similar noise and vibration generating equipment as far as feasible from noise sensitive sites, and acoustically treat the same if necessary.

- **Location:** Project wide

- **Status:** In Q2 2023, construction activities included fiber optic installation trenching and soils testing within paved parking areas on the Downtown San Jose Primary Headhouse. A Remedial Action Plan was not required for this work. This measure will be implemented in future quarters.

**Mitigation Measure:** Incorporate FTA Criteria Compliant Construction Noise and Vibration Specifications

- **Description:** VTA will incorporate a comprehensive construction noise and vibration specification into all construction bid documents requiring compliance with FTA criteria. VTA will emphasize the importance of noise and vibration control on construction pre-bid and pre-construction conferences.

- **Location:** Project wide

- **Status:** The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/15/22; CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 2 General Requirements, Sections 01 81 20 Noise and Vibration Control; limited Notice to Proceed 1 issued 6/09/22; CP-3 Newhall/Union Santa Clara Station - Issued RFP Rev A 3/4/22; CP-4 Stations - received the Statement of Qualifications in response to their RFPs on 9/13/21.

For Q2 2023, construction activities included fiber optic installation trenching and soils testing within paved parking areas on the Downtown San Jose Primary Headhouse. A Remedial Action Plan was not required for this work. This measure will be implemented in future quarters.

**Mitigation Measure:** Prepare Remedial Action Plans

- **Description:** Prior to construction, VTA will prepare new and/or amended remedial action plans (RAPs) for the BART Extension, which will be approved by the Regional Water Quality Control Board (RWQCB).

- **Location:** Project wide

- **Status:** The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/15/22; CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol 2 General Requirements, Sections 01 81 20 Noise and Vibration Control; limited Notice to Proceed 1 issued 6/09/22; CP-3 Newhall/Union Santa Clara Station - Issued RFP Rev A 3/4/22; CP-4 Stations - received the Statement of Qualifications in response to their RFPs on 9/13/21.

For Q2 2023, construction activities included fiber optic installation trenching and soils testing within paved parking areas on the Downtown San Jose Primary Headhouse. A Remedial Action Plan was not required for this work. This measure will be implemented in future quarters.

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**Table:**

<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>MMRP Code</th>
<th>Chapter</th>
<th>Measure</th>
<th>Source Document</th>
<th>Summary</th>
<th>Mitigation Measure</th>
<th>Location</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Noise and Vibration/ Incorporate FTA Criteria Compliant Construction Noise and Vibration Specifications</td>
<td>Noise and Vibration</td>
<td>Incorporate FTA Criteria Compliant Construction Noise and Vibration Specifications</td>
<td>V1-110</td>
<td>MMRP- NV- CNT-A</td>
<td>Vol 2 ROD</td>
<td>Incorporate FTA Criteria Compliant Construction Noise and Vibration Specifications</td>
<td>VTA will incorporate a comprehensive construction noise and vibration specification into all construction bid documents requiring compliance with FTA criteria. VTA will emphasize the importance and impdance of noise and vibration control specifications on pre-bid and pre-construction conferences.</td>
<td></td>
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<td>Noise and Vibration/ Locate Equipment as Far as Feasible from Sensitive Sites</td>
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<td>Locate Equipment as Far as Feasible from Sensitive Sites</td>
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<td>MMRP- NV- CNT-A</td>
<td>Vol 2 ROD</td>
<td>Locate Equipment as Far as Feasible from Sensitive Sites</td>
<td>The contractor will locate stationary equipment, such as generators and compressors, as far as feasible from noise and vibration sensitive sites, and will acoustically treat such equipment. The contractor will also locate grout batching plants, grout skids, mixers, pumps, diesel pumping equipment, and similar noise and vibration generating equipment as far as feasible from noise sensitive sites, and acoustically treat the same if necessary.</td>
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</table>

**Quarter Mitigation Completed:**

- Completed
- In Progress
- Not Implemented
- Implemented
- Proposed
- Under Design
- Under Construction
- Under Review
- Under Approval
- Under Implementation
- Under Monitoring
- Under Reporting
- Under Compliance
Excavated Holes and Trenches

- Secure steel and/or concrete plates over excavated holes and trenches to reduce rattling noise and vibration.
- Secure Steel and Concrete Plates over Excavated Holes and Trenches
- Secure Steel and Concrete Plates over Excavated Holes and Trenches

Vibration

- Temporary noise barriers are implemented when temporary noise barriers and noise control measures are not sufficient to modify the noise level from construction activities.
- Construct Temporary Noise Barriers
- Construct Temporary Noise Barriers

Annoying Noise

- Line haul truck beds with rubber or sand to reduce noise, if needed and requested by VTA.
- Line haul truck beds with rubber or sand to reduce noise, if needed and requested by VTA.

Noise and Vibration

- Operate equipment to minimize annoying noise and vibration:
  - Use an augering drill-rig for setting piles in lieu of impact pile drivers, where feasible.
  - Use equipment to minimize annoying noise and vibration:
    - Use an augering drill-rig for setting piles in lieu of impact pile drivers, where feasible.

Vibration

- Line haul truck beds with rubber or sand to reduce noise, if needed and requested by VTA.
- Line haul truck beds with rubber or sand to reduce noise, if needed and requested by VTA.

Noise and Vibration

- Temporarily noise barriers are provided and noise levels are minimized near residences.
- Temporary noise barriers tend to be particularly effective because they can be easily moved to work progresses to minimize impacts. Temporary noise barriers and the layout do not result in compliance with the noise limits. The contractor may consider enclosing existing windows and doors with acoustically rated units for the residential structures.

Vibration

- Use equipment to minimize annoying noise and vibration:
  - Use an augering drill-rig for setting piles in lieu of impact pile drivers, where feasible.

Temporary Noise Barriers

- Use noise control blankets in areas between noisy activities and noise-sensitive receptors, where practical and effective. Temporary noise barriers can reduce construction noise by 5 to 15 dB, depending on the height of the barrier and the placement of the barrier. To be most effective, the contractor will place the barrier as close as possible to the noise source or the sensitive receptor. Temporary noise barriers tend to be particularly effective because they can be easily moved to work progresses to minimize impacts. Temporary noise barriers and the layout do not result in compliance with the noise limits. The contractor may consider enclosing existing windows and doors with acoustically rated units for the residential structures.

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Vibration

- Use equipment to minimize annoying noise and vibration:
  - Use an augering drill-rig for setting piles in lieu of impact pile drivers, where feasible.
Control and Monitoring Plan

Implement a Construction Noise and Vibration Control Plan:
The contractor will submit a Noise Control and Monitoring Plan to VTA for approval. The plan will be prepared by a qualified acoustical engineer whose qualifications and proposed noise control and monitoring activities will be subject to approval of VTA prior to construction activities. The contractor will update the Noise Control and Monitoring Plan every 3 months and will include all pertinent information about construction equipment and site layout, the projected noise levels, and the noise mitigation measures that may be required to comply with the noise limits for each sensitive receptor. The Noise Control and Monitoring Plan will also outline the monitoring equipment and procedures the contractor will use in performing noise measurements and to identify noise-sensitive receptors in the immediate vicinity of construction operations, including details regarding the noise measurement locations, frequency, and duration of measurements. The contractor will document the results of noise monitoring and submit this documentation to VTA weekly. In the event that levels exceed allowable noise limits, VTA will ensure that contractually required corrective measures consistent with the Noise Control and Monitoring Plan are implemented.

Perform Preconstruction Ambient Noise Measurements at All CSAs:
The contractor will perform preconstruction ambient noise measurements at all construction staging areas, which include the tunnel portals, stations, and mid-tunnel ventilation sites. These measurements will document the noise environment just prior to start of construction at representative locations along the alignment. These measurements will be performed continuously over a minimum of 10 days (240 hours).

Adhere to Local Jurisdiction Construction Time Periods, to the Extent Possible:
The contractor will adhere to local jurisdiction construction time periods, to the extent feasible, recognizing that nighttime and weekend construction may be necessary and/or preferable. VTA and local jurisdictions to reduce other related environmental effects such as traffic, VTA will coordinate with the cities of San Jose and Santa Clara on construction operations during nighttime and weekends, and where feasible adhere to local ordinances. San Jose Ordinance 26248, 26594 restricts construction to between 7 a.m. and 7 p.m. Santa Clara Ordinance 1054-95 (§ 1-7-13-86, Ord. 1054-95, § 9-16-86, Formerly § 18-32.3) restricts construction to between 7 a.m. and 6 p.m. on weekdays, and between 9 a.m. and 6 p.m. on Saturday.

Use Best Available Practices to Reduce Noise and Vibration:
The contractor will use the best available practices to reduce the potential for exceedences of noise and vibration criteria due to construction activities. This may require the use of equipment with special exhaust silencers, construction of temporary enclosures or noise barriers around activities, and tracks for the troubled vehicles to be in good condition.

Adhere to Local Jurisdiction Construction Time Periods, to the Extent Feasible:
Implement a Construction Noise and Vibration Control Plan. This mitigation measure was included in the CP2 Conformed set under Vol 1 General Requirements, Proceed 1 issued 6/09/22. In Q2 2023, work was limited to construction hours where feasible.

Perform Preconstruction Ambient Noise Measurements at ARC CSAs:
The contractor will perform preconstruction ambient noise measurements at all construction staging areas, which include the tunnel portals, stations, and mid-tunnel ventilation sites. These measurements will document the noise environment just prior to start of construction at representative locations along the alignment. These measurements will be performed continuously over a minimum of 10 days (240 hours).
### Mitigation Monitoring & Reporting Program

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Source Document</th>
<th>Summary</th>
<th>Mitigation Measure</th>
<th>Location</th>
<th>Responsible Party</th>
<th>Compliance Status</th>
<th>Implementaion Quarter</th>
</tr>
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<tbody>
<tr>
<td>12E</td>
<td>MMRP- NV- CONST-L</td>
<td>Vol-L BDC</td>
<td>Install Long-Term Noise Monitors at CSA during all Construction Phases</td>
<td>Program-wide</td>
<td>Program-wide</td>
<td>Completed</td>
<td>C2023-Q2</td>
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</table>
### Implement a Complaint Resolution Procedure

When a complaint is received, the contractor will assign the complaint to a case manager and contact the person making the complaint to determine the appropriate action to resolve the issue. The contractor will then contact the person making the complaint to discuss the resolution of the issue.

#### Noise and Vibration

- **Mitigation Measure**: Install Long-Term Noise Monitors at CSAs during all Construction Phases.
- **Responsibility**: VTA/CIC.
- **Location**: Program-wide.
- **Timeframe**: Post-construction.

#### Noise and Vibration

- **Mitigation Measure**: Ensure Equipment is Pre-certified to Meet Noise Limits.
- **Responsibility**: VTA/CIC.
- **Location**: Program-wide.
- **Timeframe**: Post-construction.

#### Noise and Vibration

- **Mitigation Measure**: Implement a Complaint Resolution Procedure.
- **Responsibility**: VTA/CIC.
- **Location**: Program-wide.
- **Timeframe**: Post-construction.
### Implement a Construction Vibration Control and Monitoring Plan

The contractor will be required to submit a Construction Vibration Control and Monitoring Plan to VTA for approval. The plan will be prepared by a qualified vibration specialist whose qualifications and proposed vibration control and monitoring activities will be subject to approval by VTA prior to construction activities. The Construction Vibration Control and Monitoring Plan will be updated every 6 months and include all the pertinent information about construction equipment and site configuration, the projected vibration levels, and the vibration control measures that may be required to comply with the vibration limits as outlined in this measure for each building type.

The Construction Vibration Control and Monitoring Plan will also outline the monitoring equipment and procedures the contractor will use to perform vibration measurements for vibration-sensitive receptors in the vicinity of construction activities, including details regarding the vibration measurement locations, frequency, and duration of measurements at each location. The plan will outline the protocol for monitoring existing cracks in buildings over time, to determine any construction-related impacts. At a minimum, crack gauges will be installed on existing cracks prior to construction, and monitoring of the gauges will be performed continuously over the course of construction to assess whether new construction-related damage has occurred. The contractor must obtain approval from VTA and the QP to install any crack gauges on or in historic buildings that require alteration of the building.

The contractor will initially conduct vibration monitoring daily at the nearest affected buildings. In the event that levels exceed allowable vibration limits, the work will be halted immediately to ensure that no structural damage occurs, and additional required corrective measures are consistent with the Construction Vibration Control and Monitoring Plan. The plan will be updated every 6 months to include any changes in the monitoring program.

### Implementation

**Location**
- Program-wide

**Year**
- 2023

**Quarter Completes**
- Quarter 4

**Responsible Party**
- VTA/C

**VTA/C**
- Beyond

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<thead>
<tr>
<th>Measure #</th>
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<th>Location</th>
</tr>
</thead>
</table>

**For historic buildings, the vibration threshold will likely be between 0.12 to 0.2 PVV (inches/second) depending on the building’s condition. The results of the preconstruction surveys and building Conditions Assessment Report as outlined in Mitigation Measure No-CNST-1 will be utilized to confirm the structure types and determine which vibration thresholds apply in consultation with a qualified structural engineer and the historic QP.**

**For utilities, vibration thresholds will follow industry standards in coordination with utility companies, and typically adhere to a 0.5 PVV (inches/second) threshold.**

### Related Notes

- The four contract packages and current design status is as follows:
  - CP-1 Systems - RFP Rev C was issued on 04/15/22.
  - CP-2 Tunnel and Trackwork - This mitigation measure was included in the CP2 Conformed set under Vol I General Requirements, Sections 01 81 20 Noise and Vibration Control; Limited Notice to Proceed 1 issued 6/09/22.
  - CP-4 Stations - received the Statement of Qualifications in response to their RFP on 9/23/21.

- An Operational Noise and Vibration Control Plan (ONVCP) for CP-2 was submitted on 10/26/2023. Comments were received and the ONVCP is being updated to address these comments.
<table>
<thead>
<tr>
<th>Env Doc Chapter / Mitigation Topic</th>
<th>Mitigation Topic</th>
<th>MMRP Code</th>
<th>Chron #</th>
<th>Measure #</th>
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<th>Mitigation Measure</th>
<th>Location</th>
<th>Implementation</th>
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<th>Quarter Mitigation Completed</th>
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<tr>
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<td>Noise and Vibration</td>
<td>MMRP-CNST-1</td>
<td>P-V</td>
<td>Measure Building Vibration in Vertical Direction and Utilities in Accordance with Monitor Instructions</td>
<td>Program-wide</td>
<td>b</td>
<td>c</td>
<td>VTA/C</td>
<td>k</td>
<td>The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/13/22. CP-2 Tunnel and Trackwork - This mitigation measure was included in the CFH Conformed set under Vol 1 General Requirements, Sections 01 20 Noise and Vibration Control, Limited Notice to Proceed 1 issued 6/09/22. CP-3 Newhall/Foothill/Centra Clara Station - Issued RFP Rev A 3/7/22. CP-4 Stations - Issued the Statement of Qualifications in response to their RFQ on 6/3/21. An Operational Noise and Vibration Control Plan (ONVCP) for CP-2 was submitted on 5/18/2023. Comments were received and the ONVCP is being updated to address these comments.</td>
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<td>Noise and Vibration/Implement a Construction Vibration Control and Monitoring Plan-Historic Structures</td>
<td>Noise and Vibration</td>
<td>MMRP-CNST-1</td>
<td>P-V</td>
<td>Notify Qualified Professional (QP) if Historic Building Construction Vibration Approaches Threshold</td>
<td>Program-wide</td>
<td>b</td>
<td>c</td>
<td>VTA/C</td>
<td>k</td>
<td>The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/13/22. CP-2 Tunnel and Trackwork - This mitigation measure was included in the CFH Conformed set under Vol 1 General Requirements, Sections 01 20 Noise and Vibration Control, Limited Notice to Proceed 1 issued 6/09/22. CP-3 Newhall/Foothill/Centra Clara Station - Issued RFP Rev A 3/7/22. CP-4 Stations - Issued the Statement of Qualifications in response to their RFQ on 6/3/21. An Operational Noise and Vibration Control Plan (ONVCP) for CP-2 was submitted on 5/18/2023. Comments were received and the ONVCP is being updated to address these comments.</td>
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<tr>
<td>Noise and Vibration/Perform Vertical Direction Vibration Monitoring</td>
<td>Noise and Vibration</td>
<td>MMRP-CNST-G</td>
<td>P-V</td>
<td>Perform Vertical Direction Vibration Monitoring</td>
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<td>b</td>
<td>c</td>
<td>VTA/C</td>
<td>k</td>
<td>The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/13/22. CP-2 Tunnel and Trackwork - This mitigation measure was included in the CFH Conformed set under Vol 1 General Requirements, Sections 01 20 Noise and Vibration Control, Limited Notice to Proceed 1 issued 6/09/22. CP-3 Newhall/Foothill/Centra Clara Station - Issued RFP Rev A 3/7/22. CP-4 Stations - Issued the Statement of Qualifications in response to their RFQ on 6/3/21. Vertical direction vibration monitoring was not performed in Q2 2023 as construction has not commenced.</td>
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### BSV Phase II - Environmental Commitments Record

#### Mitigation Monitoring & Reporting Program

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<th>Infrastructure Capacity Assessment</th>
<th>Prepare a Santa Clara Water Supply Utilities and Participate in the Improvements</th>
<th>Prepare a San Jose Water Supply Utilities and Participate in the Improvements</th>
<th>Noise and Vibration/Implement Noise Reduction Treatments at Ancillary Facilities</th>
<th>Reduce Groundborne Noise Levels</th>
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<td>Noise and Vibration/Reduce Groundborne Noise Levels</td>
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<td>Prepare a San Jose Water Supply Infrastructure Capacity Assessment</td>
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<td>SoL-H ROD</td>
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**Notes:**
- The four contract packages and current design status is as follows: CP-1 Systems - RFP Rev C was issued on 04/19/23.
- CP-2 Tunnel and Trackwork - This mitigation measure was included in the CPS Conformed set under Vol-2 Design Criteria Manual (DCM), Section 7.1 Tunnelwork; limited Notice to Proceed 1 issued 06/02/22.
- CP-3 Newhall/First/Santa Clara Station - Issued RFP Rev A 9/9/22.
- CP-4 Stations - Received the Statement of Qualifications in response to their RFQ on 9/16/21.
- In Q2 2023, this measure did not apply because construction has not commenced.

- TOD is not included in CPS through CP4. Once TOD contracts are underway these measures will be addressed.

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<th>Mitigation Measure</th>
<th>Implementation</th>
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<tbody>
<tr>
<td><strong>Utilities/Prepare a San Jose Sewer Capacity Assessment and Participate in the Improvements</strong></td>
<td>Vol-L ROD</td>
<td>Prepare a San Jose Sewer Capacity Assessment</td>
<td><strong>Prepare a San Jose Sewer Capacity Assessment and Participate in the Improvements:</strong> VTA will coordinate with the San Jose Department of Public Works (SJDPW) to prepare a Cooperative Agreement to establish the BART Extension Alternative’s participation in improvements to offsite sanitary sewer capacity deficiencies. SJDPW may conduct a detailed engineering study and hydraulic analysis to determine the extent of these impacts. SJDPW will mitigate impacts on downstream sewer systems through payment of the Sanitary Sewer Connection Fee, as required, which is used to rehabilitate and enhance sewer capacity through San Jose’s Sanitary Sewer Capital Improvement Program. If payment to the Sanitary Sewer Connection Fee does not adequately mitigate potential offsite sewer capacity impacts related to the BART Extension, VTA will be responsible for direct upgrades to the sewer system. If sewer system overcapacity is a result of projected cumulative development, San Jose and VTA will develop a new Cooperative Agreement to determine the BART Extension Alternative’s participation in upgrades to the current system. The contractor will implement capacity-relief upgrades during the BART Extension’s construction phase in accordance with applicable San Jose standards regarding sewer infrastructure improvements. Generally, the contractor will locate sewer infrastructure improvements within the existing public right-of-way, with minimal potential to impact sensitive environmental resources. The contractor will ensure that construction activities follow the provisions outlined in this environmental document, including implementation of the construction education and outreach plan, to reduce potential impacts.</td>
<td></td>
<td><strong>TOD is not included in CP1 through CP4. Once TOD contracts are underway, these measures will be addressed.</strong></td>
</tr>
<tr>
<td><strong>Utilities/Prepare a Santa Clara Sewer Capacity Assessment and Participate in the Improvements</strong></td>
<td>Vol-L ROD</td>
<td>Prepare a Santa Clara Sewer Capacity Assessment</td>
<td><strong>Prepare a Santa Clara Sewer Capacity Assessment and Participate in the Improvements:</strong> VTA will coordinate with SCWSU to prepare a Cooperative Agreement to establish the BART Extension Alternative’s participation in improvements to offsite sanitary sewer capacity deficiencies. SCWSU may conduct a detailed engineering study and hydraulic analysis to determine the extent of these impacts. SCWSU will mitigate impacts on downstream sewer systems in Santa Clara through payment of the Sanitary Sewer Connection Charge, as required, which is used to rehabilitate and enhance sewer capacity through Santa Clara’s Capital Improvement Program. If payment to the Sanitary Sewer Connection Charge does not adequately mitigate potential offsite sewer capacity impacts related to the BART Extension, VTA will be responsible for direct upgrades to the sewer system. If sewer system overcapacity is a result of cumulative development, Santa Clara and VTA will develop a Cooperative Agreement to determine the BART Extension Alternative’s proportional participation to the upgrades to current system capacity. The contractor will implement capacity-relief upgrades during the BART Extension’s construction phase in accordance with Chapter 17.15.210-280 of the Santa Clara City Code. Generally, the contractor will locate sewer infrastructure improvements within the existing public right-of-way, with minimal potential to impact sensitive environmental resources. The contractor will ensure that construction activities follow the provisions outlined in this environmental document, including implementation of the construction education and outreach plan, to reduce potential impacts.</td>
<td></td>
<td><strong>TOD is not included in CP1 through CP4. Once TOD contracts are underway, these measures will be addressed.</strong></td>
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### Visual Quality and Aesthetics / Replace Trees

<table>
<thead>
<tr>
<th>Environmental Document Chapter</th>
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<th>Measure #</th>
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<tbody>
<tr>
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<td>Visual Quality and Aesthetics</td>
<td>Replace Trees</td>
<td>Design (D)</td>
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<td>Visual Quality and Aesthetics</td>
<td>Replace Trees</td>
<td>Construction (C)</td>
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<td>Visual Quality and Aesthetics</td>
<td>Replace Trees</td>
<td>Post-construction (P)</td>
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</table>

#### Replace Trees

- **Summary**: The contractor will inventory trees that will be removed due to construction activities and will note each tree on construction plans before construction begins. VTA will compensate for any trees removed according to the following ratios.

  - VTA will replace all urban trees that are to be removed or lost as a result of the BART Extension to the extent feasible. VTA will replace trees with a diameter of less than 12 inches at a 2:1 ratio, and trees with a diameter of 12 inches or more at a 3:1 ratio. Urban trees (nonnatives and ornamentals) are replaced with native trees, VTA will use a reduced mitigation ratio of 1:1 for all trees smaller than 12 inches in diameter, and 2:1 for all trees with a diameter of 12 inches or more. VTA will irrigate and maintain these trees for a period of no less than 3 years. If VTA cannot replace trees at the stated ratios along the alignment, VTA will pay in-lieu fees.

- **Location**: Program-wide

- **Implementation**: B  C  

- **Quarter Mitigation Completed**: VTA/C  

#### Minimize Light and Glare (for TOJD)

<table>
<thead>
<tr>
<th>Environmental Document Chapter</th>
<th>Mitigation Topic</th>
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<tr>
<td></td>
<td>Visual Quality and Aesthetics</td>
<td>Minimize Light and Glare (for TOJD)</td>
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<td>Visual Quality and Aesthetics</td>
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<td>Post-construction (P)</td>
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#### Minimize Light and Glare (for TOJD)

- **Summary**: For the TOJDs, the contractor will install low-profile, low-intensity outdoor lighting directed downward to minimize light and glare where feasible. The contractor will also install shielded fixtures for street and pedestrian lighting to minimize glare.

- **Location**: TOJD

- **Implementation**: B  C  

- **Quarter Mitigation Completed**: TOJD  

#### Design and Implement Stormwater Control Measures

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<tr>
<th>Environmental Document Chapter</th>
<th>Mitigation Topic</th>
<th>Measure #</th>
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<td>Design and Implement Stormwater Control Measures</td>
<td>Design and Implement Stormwater Control Measures</td>
<td>Program-wide</td>
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</table>

#### Design and Implement Stormwater Control Measures

- **Summary**: The BART Extension will be designed in accordance with the BART Stormwater and Landscape Design Criteria Manual. After designs are finalized, a Stormwater Management Report, including detailed hydrologic and hydraulic calculations, analysis, and conclusions, shall be prepared to document the final design for stormwater management and the storm drain system and for obtaining the requisite approvals, and will outline all required Design and Stormwater Management. 

- **Location**: Program-wide

- **Implementation**: B  C  

- **Quarter Mitigation Completed**: VTA/C  

#### Other

- **Quarter Mitigation Completed**: No trees were removed in Q2 2023.