

CHAPTER 1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Santa Clara Valley Transportation Authority (VTA) has prepared this Second Supplemental Environmental Impact Report (SEIR-2) in accordance with the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., and the CEQA Guidelines, California Administrative Code, 15000 et seq. Per CEQA Guidelines Section 15163(2)(b), a supplement to an EIR “need contain only the information necessary to make the previous EIR adequate for the project as revised.”

The SEIR-2 updates information presented in the following CEQA documents:

- *2004 BART Extension to Milpitas, San Jose, and Santa Clara Final Environmental Impact Report (FEIR);*
- *2007 BART Extension to Milpitas, San Jose, and Santa Clara Draft Supplemental Environmental Impact Report (Draft SEIR); and*
- *2007 BART Extension to Milpitas, San Jose, and Santa Clara Final Supplemental Environmental Impact Report (Final SEIR).*

Throughout this document, the Draft SEIR and Final SEIR together are referred to as SEIR-1. BART Silicon Valley was approved in 2004 and 2007 following the preparation of the above-listed environmental documents. BART Silicon Valley is referred to as the “approved project” throughout this document.

Analysis of the approved project, as presented in the SEIR-1, was based on approximately 35 percent design plans prepared during the Preliminary Engineering design phase of the project. This SEIR-2 describes the design changes and evaluates the associated environmental impacts of Phase 1 at approximately a 65 percent design level. The SEIR-2 also covers substantive new information that has become available since certification of the SEIR-1.

1.2 PHASE 1 DESCRIPTION OVERVIEW

BART Silicon Valley is the extension of the BART system from its current planned terminus in Fremont (to be implemented by 2014) to Santa Clara. The extension would run through Milpitas to San Jose, then descend into a subway tunnel, continue through downtown San Jose, and terminate at grade in Santa Clara near the Caltrain Station. The total length of the extension would be 16.1 miles.

This SEIR-2 addresses the design changes to BART Silicon Valley since certification of the SEIR-1. As part of the design changes, the project description has been changed to include a phased-construction approach. This SEIR-2 focuses only on the first phase of BART Silicon Valley, the BART Silicon Valley Berryessa Extension (Phase 1). Phase 1 consists of the first 9.9 miles of BART Silicon Valley, beginning from the current planned terminus (BART Warm Springs Station) in Fremont through Milpitas to near Las Plumas Avenue in San Jose. The alignment is on the former Union Pacific Railroad (UPRR) right-of-way (ROW), which is owned by VTA (see **Figure 1-1**). Phase 1 includes two stations: Milpitas Station (formerly Montague/Capitol Station) and Berryessa Station. Passenger service for Phase 1 would begin in 2018. The remaining 6.2 miles of BART Silicon Valley to Santa Clara would be constructed when funding is available. Any additional design changes to the remaining 6.2 miles of BART Silicon Valley would be addressed under separate environmental review.

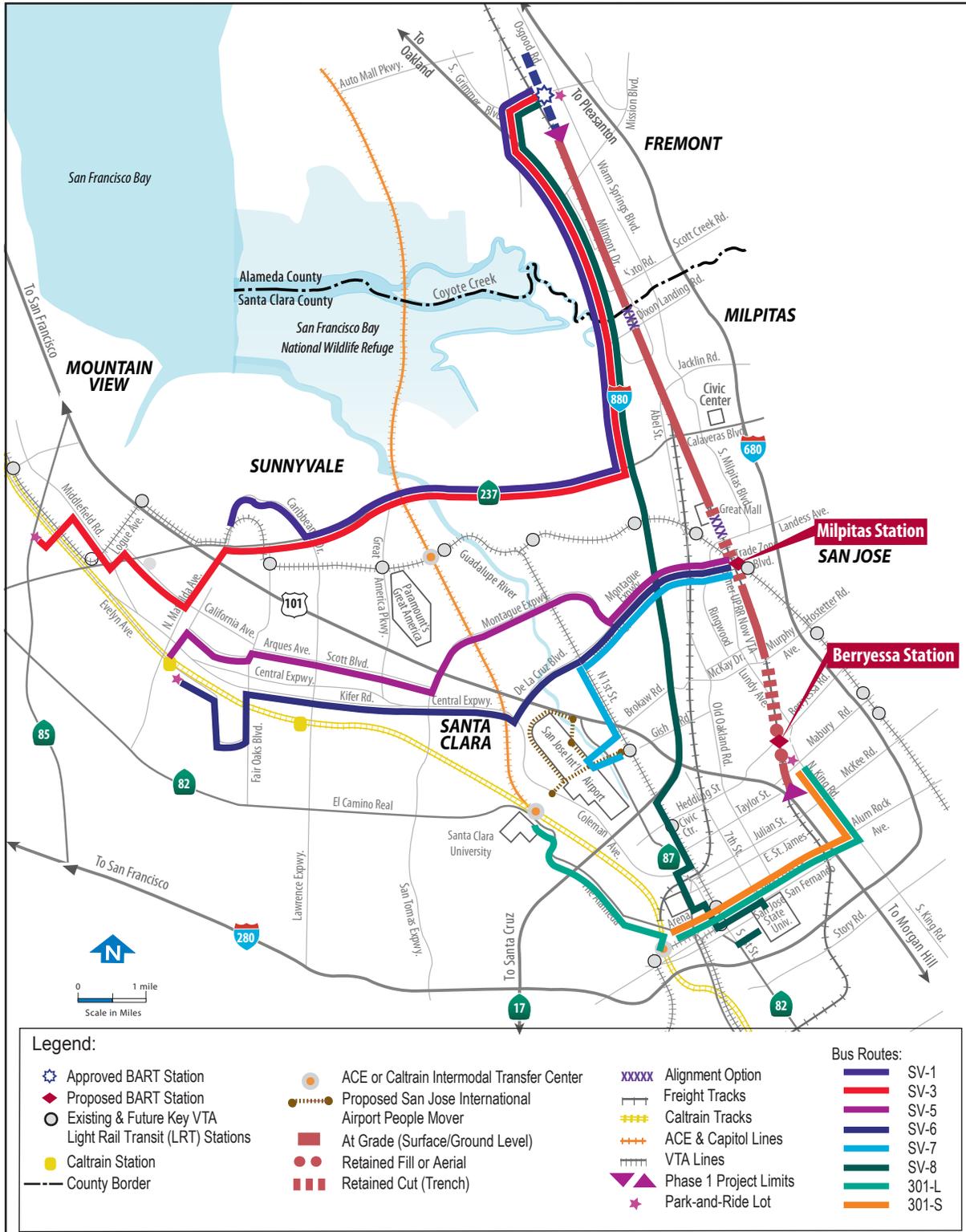
1.3 DESIGN CHANGES

This SEIR-2 evaluates 23 design changes that were identified when design plans progressed from a level of approximately 35 percent to 65 percent. This chapter describes the 23 design changes, which, when combined with the elements of the approved project, define BART Silicon Valley as described in Chapter 2 of the SEIR-1.

Table 1-1 provides a summary of the design changes in each city. In some cases, several options for the alignment and facility configurations are presented. **Table 1-1** also indicates the environmental analysis topics evaluated in **Chapter 4** that have been updated in response to each design change. All environmental analysis topics were evaluated for each design change; however environmental analysis topics not shown in **Table 1-1** did not require any updates. **Sections 4.2, Transportation, 4.3, Air Quality, 4.8, Energy, 4.10, Greenhouse Gas Emissions, and 4.15, Socioeconomics, Chapter 5, BART Core System Parking Analysis, and Chapter 6, Agency and Community Participation**, of this SEIR-2 include updated analyses that completely replace the respective sections in the SEIR-1.

1.4 PUBLIC AND AGENCY INVOLVEMENT

In August 2010, VTA issued the Notice of Preparation for the SEIR-2 in accordance with CEQA. A public scoping meeting was held on September 1, 2010 at the East Side Union High School District, located at 830 North Capitol Avenue in San Jose. Major design changes and changes to the regulatory and environmental settings since the SEIR-1 were discussed at this meeting.



Source: VTA, 2010.

Figure 1-1: BART Silicon Valley Phase 1 - Berryessa Extension

Table 1-1: Design Changes

City	Design Change No.	BART Silicon Valley Feature	Approved Project (FEIR and SEIR-1)	Current Project Description (SEIR-2)	Environmental Analysis Section
Fremont, Milpitas, and San Jose	1	Phasing of BART Silicon Valley	No Phasing	Phase 1 would extend the BART alignment 9.9 miles to the Berryessa Station and terminate near Las Plumas Avenue in San Jose. The fleet requirements, operating plans, and ridership and parking forecasts have been updated for Phase 1. The schedule has also been updated, with passenger service to start in 2018 for Phase 1.	All sections
Fremont, Milpitas, and San Jose	2	Access Road from Fremont to San Jose	Not applicable.	Add an access road on the east side the alignment and within the UPRR ROW from Fremont to San Jose. If the BART At Grade Option is selected, add an access road bridge between the BART and UPRR tracks at Dixon Landing Road.	Cultural Resources Hazardous Materials Water Resources Construction: Air Quality, Cultural Resources, Biological Resources, Hazards, Water Resources
Fremont	3	Systems Facilities Alternate Location A	Not applicable.	Add an alternate location for High Voltage Substation SRC and Switching Station SRR.	Land Use Socioeconomics Visual Quality Biological Resources Water Resources Construction: Water Resources

City	Design Change No.	BART Silicon Valley Feature	Approved Project (FEIR and SEIR-1)	Current Project Description (SEIR-2)	Environmental Analysis Section
Fremont	4	Starting point of Trackwork	The approved project begins at STA 45+00.	Phase 1 trackwork begins at STA 35+00.	Cultural Resources Hazardous Materials Noise and Vibration Socioeconomics Utilities Construction: Biological Resources, Cultural Resources, Energy, Greenhouse Gas Emissions, Hazardous Materials, Noise and Vibration
Fremont	5	Drainage Improvements at Toroges Creek (Line C)	Not applicable.	Add a box culvert at Toroges Creek (Line C).	Biological Resources Water Resources Construction: Air Quality, Biological Resources, Water Resources
Fremont	6	Eliminate Drainage Improvements at Unnamed creek	A new box culvert would be constructed by VTA at this unnamed creek.	This improvement is eliminated.	Biological Resources* Water Resources* Construction: Biological Resources, Water Resources*
Fremont	7	Eliminate Kato Road Grade Separation	Kato Road would be constructed as a roadway underpass.	This improvement is being constructed by the City of Fremont and has been eliminated from this project.	Hazardous Materials* Socioeconomics Construction: Hazardous Materials, Water Resources*

City	Design Change No.	BART Silicon Valley Feature	Approved Project (FEIR and SEIR-1)	Current Project Description (SEIR-2)	Environmental Analysis Section
Milpitas	8	Dixon Landing Road Alignment	BART would be at grade over a new bridge structure over Dixon Landing Road.	There are two options for the alignment in this location: retained cut or at grade. The retained cut option includes 4 alternate locations for pump stations.	Hazardous Materials Noise and Vibration Socioeconomics Water Resources Construction: Hazardous Materials, Noise and Vibration, Water Resources
Milpitas	9	Eliminate Drainage Improvements at Berryessa Creek	A new multi-cell box culvert would be implemented.	This improvement is eliminated.	Biological Resources* Water Resources* Construction: Biological Resources, Water Resources*
Milpitas	10	Systems Facilities Alternate Location B	Not applicable.	Add alternate location for High Voltage Substation SRC and Switching Station SRR	Visual Quality Noise and Vibration* Socioeconomics Construction: Noise and Vibration*
Milpitas	11	Eliminate South Calaveras Future Station	This station was included in mid-town Milpitas.	This station has been eliminated.	Biological Resources* Land Use* Socioeconomics Visual Quality* Construction: Air Quality, Biological Resources*
Milpitas	12	Curtis Avenue to Trade Zone Boulevard	A retained cut long option was approved.	The length of the retained cut would change based on the Milpitas Wye Relocation Option selected.	Hazardous Materials Noise and Vibration Water Resources Construction: Hazardous Materials, Noise and Vibration, Water Resources

City	Design Change No.	BART Silicon Valley Feature	Approved Project (FEIR and SEIR-1)	Current Project Description (SEIR-2)	Environmental Analysis Section
Milpitas	13	Milpitas Wye	An existing wye would be relocated.	There are now three options for the UPRR tracks entering the Wye.	Land Use Noise and Vibration Socioeconomics Utilities Construction: Socioeconomics
Milpitas	14	System Facility North of Montague Expressway	Traction Power Substation Site SME on the east side of the UPRR ROW.	Traction Power Substation Site SME would be located above the BART alignment.	Noise and Vibration Socioeconomics Construction: Noise and Vibration
Milpitas	15	Milpitas Station	Station included a 4-8 level parking structure and 16 bus bays on the east side of the station. A 60-foot-high radio tower would be provided. A pedestrian overcrossing would extend from the east side of Capitol Avenue to the Montague LRT station.	The parking structure was changed to 8 levels, 16 bus bays and four bus layover bays on the west side of the station; bus access from Capitol Avenue and bus only lane on South Milpitas Boulevard; bike path on South Milpitas Boulevard. A radio tower has been eliminated.	Noise Air Quality Land Use Visual Quality Construction: Socioeconomics
Milpitas	16	115 kilovolt Line Relocation at Milpitas Station	The existing 115 kV line at the Milpitas Station would not be relocated.	The existing 115 kV line at the Milpitas Station would be relocated in three locations.	Utilities Construction: Utilities
San Jose	17	Pump Station Facilities at Trade Zone Boulevard	Pump station was not included within the ROW for this facility.	Pump station north of Trade Zone Boulevard and west of the railroad corridor.	Noise and Vibration Socioeconomics
San Jose	18	Systems Facilities at Hostetter Road	A Train Control Building and Tractor Power Substation Site SMD was proposed.	A traction power substation site is proposed south of Hostetter Road and east of the railroad corridor.	Noise and Vibration Socioeconomics Construction: Noise and Vibration

City	Design Change No.	BART Silicon Valley Feature	Approved Project (FEIR and SEIR-1)	Current Project Description (SEIR-2)	Environmental Analysis Section
San Jose	19	Pump Station Facilities at Sierra Road and Lundy Avenue	Pump station within ROW, south of Sierra Road.	Facilities north of Sierra Road and Lundy Avenue intersection and west of the railroad corridor.	Noise and Vibration Socioeconomics
San Jose	20	Berryessa Station	A location and layout for Berryessa Station was proposed. The Security Facility was not located at Berryessa Station	The location and layout of Berryessa Station has been altered with new location of station, transit center, access road and parking garage. The Security Facility is now located at Berryessa Station	Biological Resources Land Use Noise and Vibration Socioeconomics Water Resources Visual Quality
San Jose	21	Electrical Facilities near Las Plumas Road	Two system facilities sites were identified.	A new site was identified for the Gap Breaker Station, High Voltage Substation and Switching Station. The two previous sites were removed.	Noise and Vibration Socioeconomics Construction: Noise and Vibration, Socioeconomics
San Jose	22	Maintenance and Storage of BART Trains for Phase 1	Not applicable.	Configuration for terminus of Phase 1 is described. Storage would be provided near Berryessa Station. Maintenance facilities would be located at the existing BART District Hayward Yard location. (Hayward Main Shop improvements to be environmentally cleared by BART).	Cultural Resources Noise and Vibration Construction: Cultural Resources, Noise and Vibration
Multiple Cities	23	Construction Staging Areas (CSAs)	CSAs adjusted as described in Table 3-4 .	CSAs adjusted as described in Table 3-4 .	Noise and Vibration Socioeconomics Construction: Noise and Vibration, Socioeconomics

Note: * Environmental analysis section has been revised to remove discussion of the eliminated project feature.
Source: VTA, 2010.

Chapter 6, Agency and Community Participation of this SEIR-2 provides a comprehensive summary of the agency and community participation efforts for BART Silicon Valley to date.

1.5 PUBLIC CIRCULATION OF THE DRAFT SEIR-2

The Draft SEIR-2 was circulated for public comments for a period of 45 days beginning on November 1, 2010. A public hearing will be held to receive comments on the design changes, environmental impacts, and proposed mitigation measures. The time and location of the public hearing will be announced in direct mailings, in display advertisements in local newspapers of general circulation, and noted on the project web site. The VTA Board of Directors will consider the public comments along with the information presented in this document prior to a decision on the project.

1.6 ISSUES TO BE RESOLVED

For several of the Phase 1 design options, it remains to be determined whether they will be carried through into subsequent engineering phases. These options include:

- Design Changes 3 and 10. Systems Facilities Alternate Location: Alternate Location A and Alternate Location B
- Design Change 8. Dixon Landing Road Alignment: Retained Cut Option and At Grade Option
- Design Change 13. Milpitas Wye: Wye with Spur Connection Option; Wye and Industrial Lead Option; and No Wye/Industrial Lead Only Option

1.7 IMPACTS AND MITIGATION MEASURES

Table 1-2 summarizes the significant long-term impacts from Phase 1 and identifies the proposed mitigation. The temporary and short-term significant impacts that would occur during the construction of Phase 1 are also summarized. The criteria for determining significant impacts are provided in **Section 4.1, Introduction**, of this SEIR-2. **Table 1-2** addresses only the significant impacts. Any environmental impacts that would not be considered significant are not discussed in the table.

Table 1-2: Summary of New Significant Impact and Proposed Mitigation for Phase 1

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation			
<u>Transportation and Safety</u>			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
<u>Transit</u>			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
<u>Pedestrians</u>			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
<u>Bicycles</u>			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
<u>Vehicular Traffic</u>¹			
<i>Freeways</i>			
Berryessa Station. In the vicinity of the Berryessa Station, the freeway segment analysis shows that 24 of the 32 directional freeway segments analyzed would operate at an unacceptable LOS F during at least one peak hour under Phase 1. Phase 1 is projected to have a	S	U.S. 101, Mabury Road to McKee Road, SB /PM peak hour The mitigation necessary to reduce the impact upon these freeway segments is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible, resulting in a substantial adverse effect to freeways.	SU

¹ This section includes an updated traffic analysis that entirely replaces the transportation section in the SEIR-1. The impacts are discussed in terms of station location as opposed to the proposed design change.

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<p><i>(Berryessa Station Freeways Impact continued)</i></p> <p>significant impact on 4 of the 24 directional freeway segments identified to operate at LOS F, according to the CMP definition of freeway significance criteria. The segments include:</p> <p>US 101, Mabury Road to McKee Road, southbound/PM peak hour</p> <p>US 101, I-280 to Santa Clara Street, northbound/AM peak hour</p> <p>US 101, Santa Clara Street to I-280, southbound /PM peak hour</p> <p>US 101, McKee Road to Santa Clara Street, southbound /PM peak hour</p>	S	<p>U.S. 101, I-280 to Santa Clara Street, NB /AM peak hour</p> <p>The mitigation necessary to reduce the impact upon these freeway segments is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible, resulting in a substantial adverse effect to freeways.</p>	SU
	S	<p>U.S. 101, Santa Clara Street to I-280, SB /PM peak hour</p> <p>The mitigation necessary to reduce the impact upon these freeway segments is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible, resulting in a substantial adverse effect to freeways.</p>	SU
	S	<p>U.S. 101, McKee Road to Santa Clara Street, SB/PM peak hour</p> <p>The mitigation necessary to reduce the impact upon these freeway segments is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible, resulting in a substantial adverse effect to freeways.</p>	SU
Intersections			
<p>Milpitas Station. According to City of Milpitas and Congestion Management Program (CMP) level of service (LOS) standards, the following 5 of the 36 study intersections would be significantly impacted by Phase 1 during at least one of the peak hours (CMP intersections are denoted with an asterisk (*)):</p> <ul style="list-style-type: none"> • Great Mall Parkway and Montague Expressway* (AM only) • Milpitas Boulevard and Montague Expressway* (PM only) 	S	<p>Great Mall Parkway and Montague Expressway* (AM only)</p> <p>Mitigation Measure TR-1: There are no other cost effective feasible improvements that can be made at this intersection beyond those identified under the 2030 No Project conditions. The necessary improvement to mitigate the significant impact under Phase 1 at this intersection would require grade separation of the intersection. It should be noted that the grade separation of this intersection is included in the Valley Transportation Plan 2030 (VTP 2030) project list. However, this improvement was not included as part of the year 2030 roadway network since it was not included in the VTA 2030 (SVRTC) traffic model used for</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<p><i>(Milpitas Station Intersection Impact continued)</i></p> <ul style="list-style-type: none"> • Park Victoria Drive and Yosemite Drive (AM only) • Old Oakland/Main Street and Montague Expressway* (AM only) • Trade Zone Boulevard and Montague Expressway* (PM only) 		<p>this analysis. Thus, as a conservative approach and in order to analyze the worst case scenario, this improvement was not considered to be implemented by the year 2030. Although Phase 1 would significantly impact this intersection, grade separation of this intersection was identified as the needed improvement under 2030 No Project conditions. Therefore, since Phase 1 would contribute to the need for grade separation of the Great Mall/Montague intersection, it would contribute a “fair share” amount toward the implementation of this improvement. Nonetheless, this impact remains significant and unavoidable.</p>	
	S	<p>Milpitas Boulevard and Montague Expressway (PM only) Mitigation Measure TR-2: Possible improvements include a second westbound left-turn lane. Though intersection operations would slightly improve with this improvement, the significant impact to this intersection under Phase 1 would not be mitigated. Due to the relatively high projected volumes, there are no feasible at-grade improvements to mitigate significant impacts at this intersection. Because Phase 1 would contribute to traffic congestion at this intersection, it will contribute a ‘fair share’ amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a ‘fair share’ contribution would be evaluated at that time. This impact remains significant and unavoidable.</p>	SU
	S	<p>Park Victoria Drive and Yosemite Drive (AM only) Mitigation Measure TR-3: The necessary improvement to mitigate the significant impacts under Phase 1 at this intersection consists of the addition of a second northbound left-turn lane. The implementation of this improvement would improve intersection level of service to an acceptable LOS D during the AM peak hour. It should be noted that changes to the signal timing at this location to accommodate future traffic volumes may improve intersection levels of operation without physical improvements. This mitigation would reduce the impact to a less-than-significant level.</p>	LTS

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Milpitas Station Intersection Impact continued)</i>	S	<p>Old Oakland/Main Street and Montague Expressway (AM only) Mitigation Measure TR-4: There are no further feasible improvements beyond the planned Montague widening assumed under 2030 No Project conditions that can be implemented to improve intersection levels of service to acceptable levels. The North San Jose Development Plan (NSJDP) identified the impacts to the intersection associated with its development as significant and unavoidable due to the lack of feasible mitigation measures. A traffic impact fee has been implemented as part of the NSJDP, but is only applicable to development within the NSJDP area. Development that impacts intersections within the NSJDP area is required to make a fair-share contribution towards identified improvements. Because the project would contribute to traffic congestion at this intersection, the project will contribute a 'fair share' amount toward the implementation of the identified traffic improvement under 2030 No Project conditions. Should a feasible improvement be determined, a 'fair share' contribution would be evaluated at that time. This impact remains significant and unavoidable.</p>	SU
	S	<p>Trade Zone Boulevard and Montague Expressway (PM only) Mitigation Measure TR-5: There are no further feasible improvements beyond the planned Montague widening assumed under No Project conditions that can be implemented to improve intersection levels of service to acceptable levels. The NSJDP identified the impacts to the intersection associated with its development as significant and unavoidable due to the lack of feasible mitigation measures. A traffic impact fee has been implemented as part of the NSJDP, but is only applicable to development within the NSJDP area. Development that impacts intersections within the NSJDP area is required to make a fair-share contribution towards identified improvements. Because the project would contribute to traffic congestion at this intersection, the project will contribute a 'fair share' amount toward the implementation of the identified traffic improvement under 2030 No Project</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Milpitas Station Intersection Impact continued)</i>		conditions. Should a feasible improvement be determined, a ‘fair share’ contribution would be evaluated at that time. This impact remains significant and unavoidable.	
<p>Berryessa Station. According to City of San Jose and CMP LOS standards, the following 9 of 30 study intersections would be significantly impacted by Phase 1 during at least one of the peak hours (CMP intersections are denoted with an asterisk (*)):</p> <ul style="list-style-type: none"> • Flickinger Avenue and Berryessa Road (AM & PM) • Lundy Avenue and Berryessa Road* (AM only) • King Road and Mabury Road (PM only) • US 101 and Julian Street (PM only) • King Road and McKee Road (PM only) • Capitol Avenue and McKee Road (PM only) • McLaughlin Avenue and Story Road (PM only) • King Road and Story Road (AM only) • Capitol Expressway and Capitol Avenue* (PM only) 	S	<p>Flickinger Avenue and Berryessa Road (AM & PM) Mitigation Measure TR-6: There are no other feasible improvements that can be made at this intersection beyond those described for 2030 No Project conditions to mitigate project impacts. Because the project would contribute to traffic congestion at this intersection, the project will contribute a ‘fair share’ amount toward the implementation of the identified traffic improvement under 2030 No Project conditions. Should a feasible improvement be determined, a ‘fair share’ contribution would be evaluated at that time. This impact remains significant and unavoidable.</p>	SU
	S	<p>Lundy Avenue and Berryessa Road* (AM only) Mitigation Measure TR-7: There are no cost effective feasible improvements that can be made beyond those described for 2030 No Project conditions to mitigate significant impacts of Phase 1. The necessary improvement to mitigate the Phase 1 significant impact at this intersection to an acceptable level consists of the addition of a fourth westbound through lane on Berryessa Road. This improvement is not feasible due to ROW constraints. Because Phase 1 would contribute to traffic congestion at this intersection, it will contribute a ‘fair share’ amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a ‘fair share’ contribution would be evaluated at that time. This impact remains significant and unavoidable.</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Berryessa Station Intersection Impact, continued)</i>	S	<p>King Road and Mabury Road (PM only) Mitigation Measure TR-8: The necessary improvement to mitigate the significant impact resulting from Phase 1 at this intersection to an acceptable level consists of the addition of a second westbound left-turn lane. The implementation of this improvement would improve intersection level of service to an acceptable LOS D and this impact would be reduced to a less-than-significant level.</p>	LTS
	S	<p>US 101 and Julian Street (PM only) Mitigation Measure TR-9: There are no other feasible improvements that can be made at this intersection beyond those planned as part of the station development. VTA proposes that the intersection be added to the city's list of Protected Intersections and adhere to the Protected Intersection Policy. The LOS policy specifies that Protected Intersections consist of locations that have been built to their planned maximum capacity and where expansion of the intersection would have significant impact upon other transportation facilities (such as pedestrian, bicycle, and transit systems). If a development project has significant traffic impacts at a designated Protected Intersection, the project may be approved if offsetting Transportation System Improvements are provided that enhance pedestrian, bicycle and transit facilities to the community near the Protected Intersection. As part of the development of the station, surrounding pedestrian, bicycle and transit facilities will be enhanced to serve the station and surrounding community. This impact remains significant and unavoidable.</p>	SU
	S	<p>King Road and McKee Road (PM only) Mitigation Measure TR-10: There are no cost effective feasible improvements that can be made beyond those described for 2030 No Project conditions to mitigate significant impacts from Phase 1. The necessary improvement to mitigate the significant impact resulting from Phase 1 at this intersection to an acceptable level consists of the addition of a third westbound through lane. However, this improvement would</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Berryessa Station Intersection Impact, continued)</i>		require the widening of McKee Road, which is not feasible due to ROW constraints. Because Phase 1 would contribute to traffic congestion at this intersection, it will contribute a 'fair share' amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a 'fair share' contribution would be evaluated at that time. This impact remains significant and unavoidable.	
	S	<p>Capitol Avenue and McKee Road (PM only) Mitigation Measure TR-11: As described under the 2030 No Project conditions, there are no cost effective feasible improvements that can be made at this intersection to mitigate significant impacts from Phase 1. With the newly constructed Capitol LRT line, Capitol Avenue has been upgraded to its extent to allow for the operation of the LRT in its median. Further improvement of the intersection would not be compatible with LRT operations. VTA will comply with the Protected Intersection Policy as required including providing fair-share funding (amount to be negotiated) towards the construction of identified offsetting improvements. This impact remains significant and unavoidable.</p>	SU
	S	<p>McLaughlin Avenue and Story Road (PM only) Mitigation Measure TR-12: Possible improvements include the addition of a second northbound left-turn lane. Though significant impacts would be mitigated and intersection level of service would improve with this improvement, the level of service would remain an unacceptable LOS E during the PM peak hour. The necessary improvement to improve intersection level of service to an acceptable level consists of the addition of a third southbound left-turn lane and widening of Story Road from six to eight through lanes. This improvement would require the widening of both McLaughlin Avenue and Story Road, which is infeasible due to ROW constraints. This impact remains significant and unavoidable.</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Berryessa Station Intersection Impact, continued)</i>	S	<p>King Road and Story Road (AM only) Mitigation Measure TR-13: As described under the 2030 No Project conditions, there are no cost effective feasible improvements that can be made at this intersection to mitigate significant impacts from Phase 1. The necessary improvement to mitigate the impact from Phase 1 at this intersection to an acceptable level consists of the widening of King Road from four to six through lanes. The widening of King Road is not feasible due to ROW constraints. Because Phase 1 would contribute to traffic congestion at this intersection, it will contribute a 'fair share' amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a 'fair share' contribution would be evaluated at that time. This impact remains significant and unavoidable.</p>	SU
	S	<p>Capitol Expressway and Capitol Avenue (PM only). Mitigation Measure TR-14: As described under the 2030 No Project conditions, there are no cost effective feasible improvements that can be made at this intersection to mitigate significant impacts from Phase 1. With the newly constructed Capitol LRT line, Capitol Avenue has been upgraded to its extent to allow for the operation of the LRT in its median. Further improvement of the intersection would not be compatible with LRT operations. VTA proposes that the intersection be added to the city's list of Protected Intersections and adhere to the Protected Intersection Policy. The LOS policy specifies that Protected Intersections consist of locations that have been built to their planned maximum capacity and where expansion of the intersection would have a significant impact upon other transportation facilities (such as pedestrian, bicycle, and transit systems). If a project has significant traffic impacts at a designated Protected Intersection, the project should provide offsetting Transportation System Improvements that enhance pedestrian, bicycle and transit facilities to the community near the Protected Intersection. VTA will comply with the Protected Intersection Policy as required including providing fair-share</p>	SU

Impact	Significance	Mitigation	Significance After Mitigation
4.2 Transportation (continued)			
<i>(Berryessa Station Intersection Impact, continued)</i>		funding (amount to be negotiated) towards the construction of identified offsetting improvements. This impact remains significant and unavoidable.	
4.3 Air Quality			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.4 Biological Resources			
<p>Design Change 20. Berryessa Station. There would be significant impacts to riparian habitats along Upper Penitencia Creek and Coyote Creek. Precise impacts to these habitats will be determined during subsequent engineering phases and the resource agency permit process to be completed prior to construction.</p>	S	<p>Mitigation Measure BIO-1: VTA will design all project facilities to avoid temporary and permanent adverse impacts to riparian habitat to the maximum extent practicable. If avoidance is not feasible, permanent impacts to the riparian habitat will be mitigated at a ratio of 3:1. Mitigation will be in-kind, except that non-native species will be replaced with native species common to the planting area and will be planted onsite to the maximum extent practicable. If mitigation cannot be accommodated entirely onsite, VTA will coordinate with CDFG to identify other potential riparian mitigation sites within the affected watershed. A qualified biologist, in coordination with resource agency personnel, will prepare a mitigation and monitoring plan for adverse impacts to riparian habitat resulting from the project. This plan will provide for the replacement of lost acreage as well as values and functions of riparian habitat, including shaded riverine aquatic cover vegetation. Temporary impacts will be mitigated by restoring the habitat onsite.</p>	LTS
4.5 Community Services and Facilities			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.6 Cultural and Historic Resources			
<p>Archaeological Impacts. No new significant impacts would result.</p>	S	No new mitigation is necessary.	LTS

Impact	Significance	Mitigation	Significance After Mitigation
4.6 Cultural and Historic Resources (continued)			
Historic Architecture Impacts. No new significant impacts would result.	NA	No new mitigation is necessary	NA
4.7 Electromagnetic Fields			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.8 Energy			
There would be a significant impact related to peak energy demand.	S	None feasible.	SU
4.9 Geology, Soils and Seismicity			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.10 Greenhouse Gas Emissions			
Phase 1 would reduce vehicle miles travelled and associated regional greenhouse gas (GHG) emissions. Phase 1 would result in a beneficial GHG impact.	B	No mitigation is necessary.	B
4.11 Hazardous Materials			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.12 Land Use			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA

Impact	Significance	Mitigation	Significance After Mitigation
4.13 Noise and Vibration			
<p>Phase 1 Alignment Impacts: Six single-family residences located on Berryessa Street and two multi-family buildings located at the Parc Metropolitan Condominium complex would be expected to experience increases in noise levels resulting in a <i>Severe Impact</i>. The area of effect due to UPRR trains and warning horns at the Dixon Landing Road crossing currently includes residences at the Spinnaker Apartments and at the Friendly Village Mobile Home Park. Eliminating warning horns from trains would limit the area of effect to within the UPRR ROW.</p>	S	<p>Mitigation Measure NV-1: Sound walls shall be installed to mitigate noise levels near residences affected by Phase 1. Table 4.13-5 indicates the location of recommended sound walls. Approximately 12,500 linear feet of sound walls would be needed, with each sound wall ranging in length from 250 to 1,730 feet. Typically, the location of a sound wall is either 10 or 13 feet from the track centerline, depending on the track profile (10 feet for the retained open cut track and the aerial guideway, and 13 feet for the at grade and embankment tracks). In areas where a sound wall is recommended on both sides of the alignment, absorptive sound walls are the recommended noise mitigation. The locations of the sound walls are depicted in Figures 4.13-3A through 4.13-3J in the SEIR-2.</p>	LTS
<p>Phase 1 Alignment Impacts: Between Hostetter Road and Sierra Road. The Berryessa Station would include an 8-foot high community wall near the residential areas to the east, which would reduce noise impacts. The community wall would need to be extended northward to reduce noise impacts for residences on Salomoni Court and Mabury Road. The need for additional noise insulation of at the nearby residences would be determined on an individual basis. In the area of the alignment between Hostetter Road and Sierra Road, it was</p>	S	<p>Mitigation Measure NV-2: Approximately 2,000 feet of slab track acoustical absorption at track level shall be used to reduce adverse noise effects in the area of the alignment between Hostetter Road and Sierra Road. This mitigation shall occur between civil station 459+50 and 486+50 as indicated in Table 4.13-6.</p> <p>Mitigation Measure NV-3: During the project start-up phase and prior to revenue operations, VTA will carry out noise testing along the civil stations where slab track acoustical absorption is being used as a mitigation measure. The testing is to ensure that the sound absorber is adequately attenuating the increased noise from the slab track. VTA will deliver a technical memo to the FTA on the results of the testing. The testing will also serve to inform the need for additional wayside residential noise mitigation mentioned in Mitigation Measures NV-1 and NV-4. Residences located on or at the second floor or higher would continue to experience noise levels that exceed the FTA criteria, even with the</p>	LTS

Impact	Significance	Mitigation	Significance After Mitigation
4.13 Noise and Vibration (continued)			
<p><i>(Phase 1 Alignment Impacts: Between Hostetter Road and Sierra Road continued)</i></p> <p>determined that a sound wall would not be a practical noise mitigation measure because receptors in this area have an existing sound wall at their backyard property line. It is estimated that the receptor's sound walls would provide shielding of wayside project noise of 15 dB, which is the maximum reduction of a sound wall recognized by the FTA for a single noise barrier. As shown in Table 4.13-4, receptors in this area are projected to encounter a noise level increase of <i>Moderate Impact</i>. This is primarily due to the 3 dBA increase in noise levels associated with the FST. Implementation of track-level acoustical absorption would eliminate the increased noise levels.</p>		<p>recommended sound wall mitigation, which is considered to be at the maximum feasible height. Approximately 425 residences (including single-family and individual units in multi-family residences) in 281 buildings would remain exposed to noise in excess of the FTA criteria for a <i>Severe Impact</i>. Where needed, these residences would be considered for improved building insulation as an additional mitigation. Individual residence-specific analysis of residual noise impacts would be conducted during final design to determine the noise attenuation provided by the existing windows and exterior walls of each affected residence and the specific upgrades required to achieve an interior noise level of 45 Ldn.</p> <p>Mitigation Measure NV-4: Noise insulation and other measures shall be provided for residences with second floors or higher that are exposed to noise levels in excess of the FTA criteria. The mitigation will be designed to achieve an interior noise level of 45 Ldn where feasible.</p> <p>In addition to the recommended sound walls and retrofitting of multi-story residences with improved exterior sound isolation, sound absorptive material on the trackway structure would be necessary. This mitigation would primarily be needed in areas where the alignment runs in a retained cut. To further reduce noise impacts to multi-story residences, a sound wall would be constructed on both sides of the track where the corridor is narrow (50 feet or less). Installation of sound absorptive material on the inside face of retaining walls and sound walls would further reduce sound levels by as much as 2 dBA. Otherwise, potentially significant noise impacts could result in noise levels in excess of the FTA criteria. Table 4.13-7 identifies the location and length of recommended sound wall absorptive material that would be necessary in addition to the absorptive sound wall specified in Table 4.13-5, as required by Mitigation Measure NV-1. Figures 4.13-3A through 4.13-3J show the locations of sound walls and sound absorptive materials.</p>	

Impact	Significance	Mitigation	Significance After Mitigation
4.13 Noise and Vibration (continued)			
<p>Vibration Impacts. A total of 60 residences are affected with the At Grade option at Dixon Landing Road as compared to 24 residences with the Retained Cut option at Dixon Landing Road.</p>	S	<p>Mitigation Measure NV-5: Table 4.13-9 summarizes the vibration mitigation necessary to achieve the FTA criteria. The proposed mitigation is tire derived aggregate and 8-Hz FST. The locations of vibration mitigation are depicted on Figures 4.13-3A through 4.13-3J.</p> <p>Mitigation Measure NV-6: Upon project start-up, VTA will perform further testing on tire derived aggregate underlayment at its Vasona LRT Line. The vibration testing should replicate the testing presented to the FTA in 2009. The technical evaluation will then be presented to the FTA for review and comment.</p>	LTS
4.14 Security and System Safety			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.15 Socioeconomics			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.16 Utilities			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA
4.17 Visual Quality and Aesthetics			
Phase 1 would result in the removal of trees, especially near the station sites. Removal of trees could degrade the existing visual quality in each applicable visual analysis area.	S	Mitigation Measure VIS-1: Removal of trees will be replaced at a 1:1 ratio within the relevant visual analysis area.	LTS
4.18 Water Resources, Water Quality, and Floodplains			
No new significant impacts would result.	NA	No new mitigation is necessary.	NA

Impact	Significance	Mitigation	Significance After Mitigation
4.19 Construction			
<p>Construction Education and Outreach Plan. Prior to construction, a coordinated outreach effort would be implemented to address construction issues raised by local businesses and residents. Mitigation Measure CNST-1 would be implemented by VTA to address issues and inform the public and other stakeholders of the construction schedule and associated activities</p>	S	<p>Mitigation Measure CNST-1: A Construction Education and Outreach Plan will be developed by VTA to foster communication between VTA, various municipalities, and the public during the construction phase. The plan will be implemented to coordinate construction activities with existing business operations and other development projects, and establish a process that will adequately address the concerns of businesses and their customers, property owners, residents, and commuters. Critical components of this plan will include but are not limited to the following public outreach strategies:</p> <ul style="list-style-type: none"> • Frequent updates to stakeholder groups, business organizations, and municipalities; • Public workshops and meetings with community members; • Distribution of project information and advanced construction notification via flyers, emails, mailers, and face-to-face visits; • Continuous sharing of project information and contacts posted to the website; • Media relations—i.e., news releases, news articles, and interviews; and • Deployment of an onsite outreach coordinator and outreach personnel. <p>Throughout development and implementation, the education and outreach activities will be: (1) comprehensive, seeking widespread involvement; (2) proactive, with efforts geared toward obtaining input, as well as disseminating information; (3) responsive to various needs, including translations into multiple languages and alternative formats; and (4) timely, accurate, and results oriented.</p>	LTS
Transportation			
<p>Transit. No new significant impacts would result.</p>	NA	No new mitigation is necessary.	NA

Impact	Significance	Mitigation	Significance After Mitigation
4.19 Construction (continued)			
<p>Vehicular Traffic: Dixon Landing Road At Grade Option – Construction of the BART At Grade Option, whether full or partial closure, would result in a significant impact to traffic during construction.</p>	S	<p>Mitigation Measure CNST-TR-1: Mitigation measures to reduce these impacts are not feasible due to ROW constraints. VTA will work with the City of Milpitas to develop a Traffic Management Plan for construction of the Dixon Landing Road Crossing. This impact remains significant and unavoidable.</p>	SU
<u>Air Quality</u>			
<p>Air Quality Construction Emissions. Construction of Phase 1 would exceed the BAAQMD thresholds for NOx.</p>	S	<p>Mitigation Measure CNST-AQ-1: Construction contractors shall implement the BAAQMD Basic Construction Mitigation Measures listed below and the applicable measures in the Additional Construction Mitigation Measures, also listed below. This includes Measure 10 in the Additional Construction Mitigation Measures.</p> <p>Basic Construction Mitigation Measures</p> <p>The following controls should be implemented at all construction sites.</p> <ol style="list-style-type: none"> 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, 	SU

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.19 Construction (continued)</p>			
<p><i>(Air Quality Construction Emissions continued)</i></p>		<p>Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <ol style="list-style-type: none"> 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations. <p>Additional Construction Mitigation Measures</p> <p>The following measures are recommended for projects with construction emissions above the threshold.</p> <ol style="list-style-type: none"> 1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. 2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. 3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. 4. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. 5. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. 	

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.19 Construction (continued)</p>			
<p><i>(Air Quality Construction Emissions Impact continued)</i></p>		<ol style="list-style-type: none"> 6. All trucks and equipment, including their tires, shall be washed off prior to leaving the site. 7. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. 8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 9. Minimizing the idling time of diesel powered construction equipment to two minutes. 10. Phase 1 shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOX reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. 11. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). 12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. 13. Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines. <p>Construction activity would result in a potentially significant impact without the utilization of applicable BAAQMD control measures. Mitigation Measure CNST-AQ-1 includes the <i>Basic Construction Mitigation Measures</i></p>	

Impact	Significance	Mitigation	Significance After Mitigation
4.19 Construction (continued)			
<i>(Air Quality Construction Emissions Impact continued)</i>		above and Measure 10 listed in the <i>Additional Construction Mitigation Measures</i> . These mitigation measures would reduce NO _x emissions by 25 percent and PM _{2.5} and PM ₁₀ emissions by 45 percent. As shown in Table 4.19-4 , NO _x emissions would still exceed the BAAQMD threshold resulting in a significant and unavoidable impact.	
<u>Biological Resources</u>			
Biological Resources. Temporary construction activities could impact swallows and other migratory birds, roosting bats, fish and other in-stream species, water quality; California red-legged frogs, and western pond turtles, and California tiger salamanders.	S	<p>Mitigation Measure CNST-BIO-1: If construction activities are scheduled to occur during the nesting season of swallows and other migratory birds (generally March through August), a pre-construction survey for nesting activity will be conducted prior to commencement of construction. If no nesting swallows are found, then no further mitigation is warranted.</p> <p>Mitigation Measure CNST-BIO-2: If active nests are identified close to construction work, a biological monitor will monitor the nests when work begins. If the biological monitor, in consultation with the CDFG, determines that construction activities are disturbing adults incubating eggs or young in the nest, then a no work zone buffer will be established by the biological monitor around the nest until the young have fledged and the nest is no longer active. If a biological monitor, in consultation with CDFG, determines that construction activities occurring in proximity to active cliff swallow nests are not disturbing adults or chicks in the nest, then construction activities can continue. Nests that have been determined to be inactive (with no eggs or young) can be removed with CDFG approval.</p> <p>Mitigation Measure CNST-BIO-3: A qualified biologist will conduct preconstruction surveys in suitable habitat determine the presence of roosting bats. If no roosting bats are found, then no further mitigation is warranted.</p> <p>Mitigation Measure CNST-BIO-4: If it is determined that bats are roosting beneath a bridge, in a building, or in adjacent riparian habitat, then appropriate modifications to construction time and method will be</p>	LTS

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.19 Construction (continued)</p>			
<p><i>(Biological Resources Impact continued)</i></p>		<p>implemented in accordance with CDFG approval. Modifications may include timing construction activities to avoid breeding periods, establishment of buffers, or biological monitoring. In some cases, bats may be actively encouraged to avoid roosting in the area impacted prior to the onset of construction activities.</p> <p>Mitigation Measure CNST-BIO-5: To the maximum extent practicable throughout the project site, construction activities and facilities, including pilings and bridge footings, will be placed outside of aquatic/riparian habitat to avoid impacts to riparian habitat and steelhead and Chinook salmon fisheries.</p> <p>Mitigation Measure CNST-BIO-6: Installation of falsework and stream diversions required in the course of bridge construction will be consistent with VTA’s Fish-Friendly Channel Design Guidelines to minimize impacts to migrating anadromous fish and other in-stream species. These guidelines address concerns related to a number of issues including high water velocities, jumps to channelized inlets or outlets, water depths, and resting pools.</p> <p>Mitigation Measure CNST-BIO-7: The following recommendations by CDFG will be followed to address water quality impacts:</p> <ul style="list-style-type: none"> • No equipment will be operated in the live stream channel. • When work in a flowing stream is unavoidable, any stream flow will be diverted around the work area by a barrier, temporary culvert, or a new channel capable of permitting upstream and downstream fish movement. • Construction of the barrier or the new channel normally will begin in the downstream area and continue upstream, and the flow will be diverted only when construction of the diversion is completed. <p>Appropriate erosion control measures will be installed to prevent debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products, or other organic or earthen material from being washed into waterways by rainfall or runoff.</p>	

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.19 Construction (continued)</p>			
<p><i>(Biological Resources Impact continued)</i></p>		<p>Mitigation Measure CNST-BIO-8: The following mitigation measures will be followed to avoid or minimize take of California red-legged frogs or California tiger salamanders:</p> <ul style="list-style-type: none"> • A qualified biologist will conduct pre-construction surveys for California red-legged frog and California tiger salamanders within the vicinity of the project site no earlier than 2 days before ground-disturbing activities. The survey area will include 300 feet upstream and downstream from the project site. • No activities will occur in suitable frog or salamander habitat after October 15 or the onset of the rainy season, whichever occurs first, until May 1 except for during periods greater than 72 hours without precipitation. Activities can only resume after the 72-hour period or after May 1 following a site inspection by a qualified biologist, in consultation with the U.S. Fish and Wildlife Service (USFWS). The rainy season is defined as a frontal system that results in depositing 0.25 inches or more of precipitation in one event. • Vehicles to and from the project site will be confined to existing roadways and defined access routes to minimize disturbance of California red-legged frog and California tiger salamander habitat. • If a California red-legged frog or California tiger salamander is encountered during excavations, or any project activities, activities will cease until the frog or salamander is removed and relocated by a USFWS-permitted biologist. Exclusionary fencing will be installed to prevent red-legged frogs or tiger salamanders from re-entering the work area. Any incidental take will be reported to the USFWS immediately by telephone. • If suitable red-legged frog habitat or tiger salamander is disturbed or removed, VTA will restore the suitable habitat back to its original value by covering bare areas with mulch and re-vegetating all cleared areas with plant species that are currently found in the project site or as negotiated with USFWS. 	

Impact	Significance	Mitigation	Significance After Mitigation
4.19 Construction (continued)			
<i>(Biological Resources Impact continued)</i>		<ul style="list-style-type: none"> Any permanent loss of aquatic habitat in Upper Penitencia Creek or Lower Silver Creek will be compensated through protection or enhancement of degraded aquatic and riparian habitat at either an onsite or an offsite location. The location and total amount of the compensation habitat will be determined in consultation with USFWS. (Mitigation for impacts to wetland and aquatic habitats is included in Section 4.4.4 of the SEIR-1. Mitigation for impacts to riparian habitat has been revised and is included in Section 4.4.4 of the SEIR-2.) <p>Mitigation Measure CNST-BIO-9: A qualified biologist will conduct a preconstruction survey for western pond turtles in all suitable aquatic habitats. The survey area will include 300 feet upstream and downstream from the project site. This survey will be conducted no more than 24 hours prior to the onset of in water construction activities. If individual pond turtles are located, they will be captured by a qualified biologist and relocated to the nearest suitable habitat upstream or downstream of the project site. If individuals are relocated, then the contractor will install barrier fencing along each side of the work area to prevent individual turtles from re-entering the work area. In the event barrier fencing is installed, the qualified biologist will conduct relocation surveys for three consecutive days to ensure that all animals are removed from the disturbance area.</p>	
<u>Greenhouse Gas Emissions</u>			
<p>Construction Emissions. Construction activity would generate greenhouse gas (GHG) emissions from the operation of on- and off-road motor vehicles. While the GHG emissions associated with construction of Phase 1 would be localized and temporary in nature, construction of Phase 1 would span a period of about eight years, representing a significant impact.</p>	S	<p>Mitigation Measure CNST-GHG-1: VTA shall ensure that construction waste and demolition materials are recycled and that 50 percent of the construction waste is diverted from landfill, in accordance with the BAAQMD recommended guidance for reducing GHG emissions during construction.</p>	LTS

Impact	Significance	Mitigation	Significance After Mitigation
4.19 Construction (continued)			
<u>Hazardous Materials</u>			
<p>Contaminant Management Plan. Phase 1 construction activities could impact groundwater and soil quality.</p>	S	<p>Mitigation Measure CNST-HAZ-1: The <i>Contaminant Management Plan</i> dated and approved by the Regional Water Quality Control Board on October 21, 2008 and mitigation measures included in the <i>Contaminant Management Plan</i> shall be implemented during construction. The mitigation measures detail requirements for the management for soil and railroad ballast, groundwater as part of dewatering activities, and building materials.</p>	LTS
<p>Great Mall Property. Phase 1 construction activities could impact hazardous material contaminated groundwater and soils near the Great Mall Property.</p>	S	<p>Mitigation Measure CNST-HAZ-2: In addition to implementation of the <i>Contaminant Management Plan</i>, the measures included in the “Site Management Plan – Former Ford Automobile Assembly Plant Formerly 1100 South Main Street, Milpitas, California” (March 1997) and the RWQCB’s letter dated April 16, 2001 for this property will be implemented during construction of the Project at the Great Mall. These documents include measures for: review of historic environmental data and further investigation, if necessary; performance of a human health risk assessment; development of a project-specific site management plan and health and safety plan; and requirements for notification and disclosure, construction safety, soil management, and use of shallow groundwater.</p>	LTS
<p>Contractor Health and Safety Plan. Phase 1 construction activities could expose hazardous materials to construction workers, the public, and the environment.</p>	S	<p>Mitigation Measure CNST-HAZ-3: To protect the health and safety of construction workers, the public, and the environment, and to ensure the proper management of hazardous materials, a Health and Safety Plan that meets Occupational Safety and Health Administration requirements will be prepared, CERCLA certified, and implemented during construction.</p>	LTS

Source: VTA, 2010.

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