Summary of U.S. 101 Alignment Alternatives

Several comments questioned why an alignment over, under, or adjacent to U.S. 101 was not studied as part of the SEIS/SEIR. Volume I, Chapter 2, Section 2.4, Alternatives Considered and Withdrawn, was revised to provide a summary of previous analysis regarding alternatives.

As described in Section 2.4, VTA has evaluated several different alternative alignments in this general area over the last 13 years since the first environmental document was released in 2004. Since many alignment alternatives around US 101 were previously analyzed and withdrawn from consideration, they were not carried forward as part of the SEIS/SEIR. These various alternative alignments were evaluated for many reasons, including operational efficiencies such as optimal design speeds that would increase travel times, avoidance and minimization of impacts on properties in the general area, reduction in costs associated with mitigation measures, and minimization of potential real estate/right-of-way acquisition and costs associated with acquisition, displacements, and relocations. The Final SEIS/SEIR was revised to include a discussion of the previously analysis and consideration the alignment alternative alignments around US 101. Refer to Section 2.4 for a chronology of the alternative alignments and associated environmental documents and a description of alternative alignments and associated environmental documents and a description of alternative alignments and associated environmental impacts and costs.

Five alignment alternatives were evaluated for the portion of the Phase II Project between the end of the BART Phase I Project just north of U.S. 101 and Santa Clara Street to the south. Two of the alignment alternatives evaluated were over U.S. 101 along VTA-owned right-of-way (ROW) that was formerly railroad ROW. Three of the alignment alternatives evaluated were in a tunnel configuration to the east of U.S. 101 and crossed under U.S. 101 near McKee Road. For these three alignment alternatives, the tunnel would begin in the vicinity of Las Plumas Avenue. The five alignment alternatives evaluated included:

- 1. BART Extension in a Bridge Over U.S. 101 Alignment
- BART Extension in a Bridge Over U.S. 101 with Alum Rock/28th Street Station Relocated to a 23rd Street Station Alignment
- 3. BART Extension Adjacent to U.S 101 Alignment
- 4. BART Extension Under Anne Darling School Alignment
- 5. BART Extension Under U.S. 101 Alignment

Diridon Station Short-Term Parking

Several comments requested clarification on the effects construction of Diridon Station will have on existing parking in the Diridon Station area during events at the SAP Center.

Background

The SEIS/SEIR evaluates the potential effects on existing parking that would be impacted during construction differently under NEPA and CEQA.

Under NEPA, transit projects can affect the availability and location of parking spaces, which can be a local concern. Potential parking impacts include the consequences of, or impacts from, changes to on- and off-street parking during construction of a project. The Federal Transit Administration's (FTA's) recommendations on their regulations and guidance website state that federal environmental documents for transit projects should identify anticipated parking impacts and provide ways to avoid, minimize, and mitigate any adverse effects on nearby residential or business communities.¹ The SEIS/SEIR evaluated parking effects associated with construction of the BART Phase II Extension Project under NEPA and concluded that construction parking impacts had the potential to be adverse at Diridon Station. The SEIS/SEIR also concluded that, after implementation of the mitigation measures identified in Section 5.5.1, *Construction Outreach Management Program*, construction parking impacts would not be adverse.

Revisions to the State CEQA Guidelines that became effective on January 1, 2010, eliminated effects on parking. These revisions were based on the decision in *San Franciscans Upholding the Downtown Plan v. City & County of SF*, 102 Cal.App.4th 65 (September 30, 2002), in which the court ruled that parking deficits are an inconvenience to drivers but not a significant physical impact on the environment. As a result of this change to the State CEQA Guidelines, VTA adopted significance thresholds that did not include the effects of parking on November 4, 2010. This is consistent with the intent of Public Resources Code Section 21099(d)(1) which states that: "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." The project is located on a site surrounded by urban development and is therefore infill. By definition, the location of a transit center is within a transit priority area. Therefore, the loss of parking spaces and generation of parking demand in excess of the parking supply provided by the project are not considered direct significant impacts on the physical environment under CEQA as discussed in Section 6.2.1 of the SEIS/SEIR.

¹ Federal Transit Administration. No Date. *Transportation Impacts*. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/transportation-impacts-0.

Parking conditions evolve over time as people alter their modes and patterns of travel in response to changing land uses and transportation options. The parking losses caused by a project or parking demand generated by a project in excess of the parking supply provided by the project could result in an indirect (secondary) impact on the environment if drivers circling for parking cause effects on traffic circulation or air quality. Sections 3.5.2.12 and 5.5.2.7 of the SEIS/SEIR includes the analysis of parking impacts under NEPA and Section 6.2.1 of the SEIS/SEIR discusses the parking impacts under CEQA.

Effects of Construction on Existing Parking

Based on a parking inventory and additional analysis, which was conducted in July/August 2017 to verify the number of available parking spaces in the vicinity of Diridon Station, the text under Section 5.5.2.7, *Diridon Station (South and North Options)*, subheading *Parking*, has been replaced as follows:

Construction of both the North and South Options at Diridon Station, for both the Twin-Bore and Single-Bore Options, would impact approximately 715 off-street and 40 onstreet publicly-available parking spaces for a total of approximately 755 impacted parking spaces. The impacted parking is located in the area bounded by Santa Clara Street/The Alameda to the north, San Fernando Street to the south, Los Gatos Creek to the east, and the railroad corridor to the west as shown on Figures 5-7 and 5-8, which show the Diridon Station North and South Construction Staging Areas. These figures show four existing off-street parking lots between the railroad tracks and Autumn Street that would be impacted along with on-street parking on Montgomery and Autumn Streets. There is not on-street parking on Santa Clara Street/The Alameda and Cahill Street. The number of parking spaces impacted by the BART Extension was verified by a review of aerial photos and a field review on July 13, 2017. The approximately 755 parking spaces impacted during construction would be unavailable for the entire 8-year duration of construction of Diridon Station. However, if the final design and engineering studies and/or contractor determine that not all of the on- and off-street parking areas are needed for the full 8 years, some parking may be restored temporarily or permanently prior to the end of construction. The loss of approximately 715 off-street and 40 on-street parking spaces, for a total of approximately 755 parking spaces, during construction has the potential to result in an adverse effect. VTA conducted a Diridon area parking survey in July/August 2017 (Diridon BART Station Area - Parking Inventory) to validate the number of available parking spaces in the vicinity of Diridon Station. The parking survey concluded that currently there are approximately 14,450 publicly-available parking spaces located within 0.5 mile of Diridon Station. This total includes approximately 2,605 on-street and 11,845 off-street parking spaces located on both private and public property as shown on Figures 2-8 through 2-10. Within 0.33 mile of Diridon Station, there are a total of approximately 4,145 parking spaces that are available to the public, consisting of approximately 1,045 on-street and 3,100 off-street parking spaces. These parking spaces are shown on Figures 5-H through 5-K. The substantial on-street and offstreet public parking opportunities available would eliminate the need to travel substantially greater distances for parking and the associated air quality impacts.

According to the Arena Management Agreement between the City of San Jose and San Jose Arena Management, the City of San Jose is contractually obligated to provide at least 6,350 offsite parking spaces within 0.5 mile of the SAP Center. Of the 6,350 offsite parking spaces, 3,175 off-site parking spaces must be within 0.33 mile of the SAP Center. Several commenters have expressed concern that the loss of parking during construction of Diridon Station would result in insufficient parking available to meet this Arena Management Agreement. VTA is not a party to the Arena Management Agreement; therefore, VTA has no financial or legal obligation or responsibility to meet any of the requirements of this contract.

There is a separate Cooperative Parking Agreement between the San Jose Arena Management, the Peninsula Corridor Joint Powers Board, and VTA that permits shared use of parking at the San Jose Diridon Caltrain Station during arena events. This includes the 180 parking spaces on VTA property located south of West Santa Clara Street and between Cahill and Montgomery Streets for the period before, during, and after arena events. The Peninsula Corridor Joint Powers Board's commitment is for 400 parking spaces during arena events. Vehicles occupying these parking spaces prior to an event can remain according to the Agreement. The Agreement terminates June 30, 2018; however, there is a clause that states that the Agreement shall automatically renew for an additional sixteen (16) months upon the San Jose Arena Management's renewal of its Arena lease with the City of San Jose. As of December 5, 2017, the Agreement had not been renewed. If renewed, the Agreement would extend to October 30, 2019.

The loss of approximately 755 parking spaces at Diridon Station during construction of the BART Extension (including the 480 shared use parking spaces on VTA and Peninsula Corridor Joint Powers Board properties) would impact 5.2 percent of the approximately 14,450 total publicly-available parking spaces within 0.5 mile of Diridon Station. The remaining 13,695 parking spaces would still be available within 0.5 mile of Diridon Station. Within 0.33 mile of Diridon Station, the loss of approximately 755 parking spaces would impact 18.2 percent of the approximately 4,145 total publicly-available parking spaces, with approximately 3,390 parking spaces still available for use. The amount of parking still available for use would exceed the parking obligations specified in the Arena Management Agreement. The BART Extension would not prevent the City of San Jose from meeting its contractual obligation in the Arena Management Agreement for spaces within a 0.5 and 0.33 mile radius.

After the implementation of Mitigation Measures TRA-CNST-A and TRA-CNST-B, as described in Section 5.5.1, as well as Mitigation Measure TRA-CNST-D below, the level of impact on parking during construction of the BART Extension Alternative would be not adverse. Mitigation Measure TRA-CNST-A states that VTA will develop a CEOP to provide notification of upcoming construction activities, including roadway closures and

removal of parking, to minimize disruptions during construction. Mitigation Measure TRA-CNST-B states that VTA will work with the City of San Jose to develop a Master Cooperative Agreement which will include a Construction Transportation Management Plan to minimize disruptions during construction. In addition, Mitigation Measure TRA-CNST-D has been revised as follows:

<u>Mitigation Measure TRA-CNST-D: Provide Temporary Replacement Parking</u> <u>at Diridon Station</u>

VTA will provide 450 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.

The feasibility of VTA's provision of 450 replacement off-street parking spaces during construction under Mitigation Measure TRA-CNST-D is supported by the San Jose Diridon Station Area Parking Study. This study was prepared by the City of San Jose in collaboration with VTA, Caltrain, California High Speed Rail, and Sharks Sports and Entertainment to identify interim parking solutions to help mitigate public parking impacts during construction of Diridon Station transit improvements, BART Phase II, and the Trammell Crow's project within the Diridon Station area. Construction of these projects is expected to start by 2019 and be completed by 2025/2026. As many as 1,500 existing public and private off-street parking spaces could be impacted in the Diridon Station area during construction of these projects. Available land in the area was evaluated that could be used for interim parking during the period of 2018–2025. The study identified four possible sites that could accommodate over 1,400 total parking spaces that met the goals and needs of interim parking for stakeholders. These sites are all located within 0.5 mile from Diridon Station and at the intersections of Montgomery Street and St. John Street, Montgomery Street and San Fernando Street, and two lots at Montgomery Street and Park Avenue. Of these parking spaces, 525 are located within 0.33 mile. Based on this study, there are opportunities for off-street parking in the Diridon Station area as required by Mitigation Measure TRA-CNST-D.

In addition, Diridon Station is an existing multi-modal transportation center located within the City of San Jose's downtown urban core. Diridon Station is served by several transit modes including VTA's Light Rail and express and local bus service, ACE, Amtrak, Capitol Corridor, and regional bus lines to Alameda and Santa Cruz County. This station is well connected within the City's and County's regional bicycle network and is well-served with pedestrian facilities. Therefore, this station is well-served by many multi-modal options for SAP customers and transit riders to access the station during construction.

With the provision of 450 replacement off-street parking spaces during construction, the BART Extension would result in the loss of 305 parking spaces or 2.1 percent of the total

14,450 available parking within a 0.5-mile radius of Diridon Station for up to 8 years during construction. The loss of 2.1 percent of the total available parking spaces at an existing major transportation center in the downtown urban core of San Jose with many multi-modal options was not considered an adverse effect on parking.

<u>Therefore, with implementation of Mitigation Measures TRA-CNST-A, TRA-CNST-B,</u> and TRA-CNST-D, construction of the Diridon Station South and North Options under both the Twin-Bore and Single-Bore Options would result in *no adverse effect* on parking.

The short-term parking impact after mitigation of 2.1 percent of the available on-street and off-street parking within 0.5 mile is not considered adverse, and with implementation of Mitigation Measures TRA-CNST-A, TRA-CNST-B, and TRA-CNST-D (revised), described in Chapter 5, Section 5.5.1, *Construction Outreach Management Program*, no revision is needed to the determination in the SEIS/SEIR that construction of the Diridon Station South and North Options under both the Twin-Bore and Single-Bore Options would have *no adverse effect* on parking under NEPA after mitigation.

Construction of either the BART Extension Alternative or the BART Extension with TOJD Alternative would result in parking impacts similar to those analyzed under NEPA in Chapter 5 for the BART Extension Alternative, as construction of the BART Extension with TOJD Alternative would occupy the same footprint as construction of the BART Extension Alternative. As noted in the *Background* section, direct parking impacts are not evaluated for significance under CEQA in the SEIS/SEIR. However, indirect parking impacts were considered and determined not to be significant.

Diridon Station Long-Term Parking

Several comments requested clarification on the long-term effects of the Diridon Station once the BART Extension is in operation. Comments focused on the need to provide parking for BART riders and the impacted existing parking spaces in the Diridon Station area during events at the SAP Center.

The number of parking spaces impacted by the project was verified by a review of aerial photos and a field review on July 13, 2017. The impacted parking spaces are located south of West Santa Clara Street, west of Autumn Street, north of the light rail line and east of the railroad tracks.

As noted in Master Response 2, *Diridon Station Short-Term Parking*, construction of both the South and North Options at Diridon Station, for both the Twin-Bore and Single-Bore Options, would result in the loss of approximately 715 off-street and 40 on-street publicly-available parking spaces for a total of approximately 755 displaced parking spaces during construction. The approximately 40 on-street parking spaces impacted during construction of Diridon Station would become available when construction is completed. The approximately 715 existing off-street parking spaces impacted during construction of the Diridon Station would not be replaced after the project opens. Also as describe in Master Response 2, substantial on-street and off-street public parking is available with 0.33 and 0.5 miles. As discussed in Section 3.5.2.12, *Impact BART Extension TRA-8: Parking* and based on the parking demand analysis, this long-term parking impact at the Diridon Station would result in *no adverse effect* under NEPA and impacts would be *less than significant* under CEQA. The following provides a discussion on the analysis.

Background on NEPA and CEQA Requirements

The SEIS/SEIR evaluates long-term parking effects differently under NEPA and CEQA.

Under NEPA, transit projects can affect the availability and location of parking spaces, which can be a local concern. Potential parking impacts include consequences of, or impacts from, new parking lots constructed to serve transit facilities, changes in parking demand as a result of transit facility construction/service expansion, and changes to on- and off-street parking during construction of a project. This master response addresses the long-term effects on parking. Construction-related impacts on parking are discussed under Master Response 2. The FTA's recommendations on their website under regulations and guidance state that federal environmental documents for transit projects should identify anticipated parking impacts and provide ways to avoid, minimize, and mitigate any adverse effects on nearby residential or business communities.² The SEIS/SEIR evaluated long-term parking

² Federal Transit Administration. No Date. *Transportation Impacts*. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/transportation-impacts-0.

effects associated with operation of the BART Phase II Extension Project under NEPA and concluded that long-term parking impacts would not be adverse.

Revisions to the State CEQA Guidelines that became effective on January 1, 2010 eliminated effects on parking. These revisions were based on the decision in *San Franciscans Upholding the Downtown Plan v. City & County of SF*, *102 Cal.App.4th 65 (September 30, 2002)*, in which the court ruled that parking deficits are an inconvenience to drivers but not a significant physical impact on the environment. As a result of this change to the State CEQA Guidelines, VTA adopted significance thresholds that did not include the effects of parking on November 4, 2010. This is consistent with the intent of Public Resources Code Section 21099(d)(1) which states that: "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." Diridon Station is located on a site surrounded by urban development and is therefore infill. By definition, the location of a transit center is within a transit priority area.

Parking conditions evolve over time as people alter their modes and patterns of travel in response to changing land uses and transportation options. The parking losses caused by a project or parking demand generated by a project in excess of the parking supply could result in a indirect (secondary) impact on the environment if drivers circling for parking cause secondary effects on traffic operations or air quality. Refer to the discussion of parking impacts in the SEIS/SEIR under Section 3.5.2.12 for NEPA and 6.2.1 for CEQA details. discusses

Parking Demand at Diridon Station

There were a number of comments regarding the need to provide parking for BART riders at Diridon Station. Section 2.2.2.1, *Alignment and Station Features by City*, identifies the number of parking spaces provided at each station with the BART Extension. The proposed new parking to be provided as part of the BART Extension Alternative includes 1,200 parking spaces at the Alum Rock/28th Street Station and 500 parking spaces at Santa Clara Station. Parking would not be provided at either the Downtown San Jose or Diridon Stations.

Chapter 3, Section 3.5.2.12, *Impact BART Extension TRA-8: Parking*, has been revised in response to public comment to clarify the demand for long-term parking for the BART Extension. This discussion is organized by BART station and explains that long-term parking would not be provided at Diridon Station for the BART Extension. Rather, as shown in Table 3-16, *2035 Forecast Year Mode of Access by BART Extension Station*, access to the Diridon Station would be almost entirely (91 percent) by walk/bicycle, heavy and light rail transit, and bus. The remaining 9 percent would be by auto kiss-and-ride, which does not require parking. Table 3-16 shows the Diridon Station Auto Park-and Ride columns as "not applicable" because the Diridon Station, as currently proposed, would not include BART-specific auto park-and-ride facilities.

The 2010 FEIS, Table 3-15, Mode of Access by SVRTP Alternative Station, assumed 44 percent of the Diridon Station BART riders would access the station by auto park-and-ride. Since 2010, BART has implemented new policies to discourage drive-alone trips to BART stations. On June 9, 2016, the BART Board of Director's adopted a BART Station Access Policy that included a Station Access Design Hierarchy. In descending order, BART's priorities for passenger access to its stations are walk, bicycle, transit and shuttle, drop-off and pick-up, and, lastly, auto parking. The decision to not provide park-and-ride facilities for the BART Extension at Diridon Station is also consistent with BART's Station Access Policy adopted June 9, 2016, regarding "urban" BART stations. In reviewing the BART's Station Access Typology Definitions,³ the Diridon Station would be classified as an "Urban" station when considering these categories. Specifically, BART's definition of an Urban Station has the characteristics listed in the following table that are consistent with the characteristics of the Diridon Station.

Characteristics of an Urban Station	BART Extension Alternative – Diridon Station
Combined walk, bike, and transit access of greater than 75%.	Non-auto access is 91% and greater than 75% threshold needed to be considered an "Urban" station (per Table 3-16 in the SEIS/SEIR).
Drive alone rates of 5% or less.	Drive alone percentage is 1% and meets the 5% or less threshold needed to be considered an "urban" station (per Table 3-16 in the SEIS/SEIR).
No BART-managed parking.	No BART-managed parking is provided.
Almost all auto access is from drop-off activity.	Only auto access is 9% kiss-and-ride (per Table 3-16 in the SEIS/SEIR).
Highway access is not convenient.	State Route (SR-) 87 and Interstate (I-) 280 are nearby, but they are heavily congested during the AM and PM peak commute periods.
Station can be found in a downtown or neighborhood business district.	Station is located in Downtown San Jose.
Station may be underground or otherwise has a limited spatial footprint.	Station is underground.
Station is well-served by many types of transit service that stop on adjacent streets.	Existing transit service includes commuter rail, intercity passenger rail, light rail, express bus, and local/limited bus transit operators. These include Caltrain, ACE, and Amtrak heavy rail service. This station also has access to VTA's light rail system. Bus service includes California Shuttle Bus, Amtrak Bus, Monterey-Salinas Transit, Santa Cruz Metro, SMART, and VTA's Alum Rock Bus Rapid Transit service and many local VTA bus lines.

BART's Access Policy Characteristics of an Urban Station and Diridon Station Characteristics

³ See BART's web site at http://www.bart.gov/about/planning/access.

VTA's FTA-approved Travel Demand Modeling quantified 2035 BART ridership at the four stations, including Diridon Station, with and without BART transit-specific parking, as shown in the tables below. Ridership modeling showed that providing a parking structure with 500 parking spaces at Diridon Station would increase daily ridership at Diridon Station by 1,359 riders (14 percent) as shown in the table below. However, the overall systemwide ridership among the four BART stations remained relatively the same (the total system wide ridership increased by only 19 passengers with the inclusion of parking spaces at Diridon Station). The modeling indicates that without parking at Diridon Station, auto-based BART trips shifted to the Alum Rock/28th Street and Santa Clara Stations, which provide parking. Therefore, based on the ridership modeling for the BART Extension, the nominal increase in overall ridership (19 passengers and 0.0004 percent) that would be gained from construction of a BART transit-specific parking structure at Diridon Station did not warrant the cost of construction.

Travel Demand Modeling: 4-Station Phase II 2035 Rider (With Parking)	rship Estimate	Travel Demand Modeling: 4-Station Phase II 2035 Rider (Without Parking)	ship Estimate
Alum Rock	9,015	Alum Rock	10,220
Downtown San Jose	24,298	Downtown San Jose	24,298
Diridon	10,991	Diridon	9,632
Santa Clara	7,757	Santa Clara	7,893
Total	52,061	Total	52,042

October 2015 Travel Demand Modeling

Additionally, the decision to not provide park-and-ride facilities for the BART Extension at Diridon Station is also consistent with the Envision San Jose 2040 General Plan, Commercial Downtown Land Use Plan Policies, and Transportation Policies (adopted November 2011).

The Commercial Downtown Land Use Policies states that "all development within this designation should enhance the "complete community" in downtown, support pedestrian and bicycle circulation, and increase transit ridership. The Downtown Urban Design Policies speak to the urban, pedestrian-oriented nature of this area. As such, uses that serve the automobile should be carefully controlled in accordance with the Downtown Land Use Policies."

Land use policy LU-3.5 would apply to the Diridon Station area and is as follows; "Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety." San Jose's Transportation Goals, Policies, and Actions aim to establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes. Goal TR-1.3, Balanced Transportation System, policy is to "increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. The 2040 commute mode split target for San Jose residents and workers are presented in [Table TR-1]." Table TR-1: Commute Mode Split Targets for 2040 displays the goal for Drive alone as no more than 40 percent and Transit as at least 20 percent. Diridon Station is intended to be in alignment with the City's mode shift goal.

In addition, as shown in Table 3-18, 2035 Forecast Year AM Peak Period Door-to-Door Travel Tim (Minutes) for Selected Origin-Destination Pairs: No Build versus BART Extension, of the SEIS/SEIR, Diridon Station is projected to function more as a destination station in the AM commute direction, as patrons travel to nearby activity centers, than as an origin station. As a destination station, the parking demand at Diridon Station would be less than at stations that primarily function as origins in the AM commute direction.

Diridon Station is an existing multi-modal transportation center located within the City of San Jose's downtown urban core. Diridon Station is now and will continue to be served by several transit modes, including VTA's Light Rail and express and local bus service, ACE, Amtrak, Capitol Corridor, and regional bus lines to Alameda and Santa Cruz County. This station is well connected within the City's and County's regional bicycle network and is well-served with pedestrian facilities. Therefore, this station is well-served by many multi-modal options for SAP customers and transit riders to access the station. BART service will only add to the many multi-modal options available to travelers with Diridon Station as their intended destination.

Impacts on Existing Parking

The permanent loss of approximately 715 existing off-street parking spaces was of concern to both transit riders and the SAP Center management. Section 3.5.2.12, *Impact BART Extension TRA-8: Parking*, under the subheading *Diridon Station*, has been revised with updated information to explain the long-term plan to resolve parking in the Diridon area.

SAP management was concerned about the impact on the existing approximately 715 offstreet parking spaces that are across the street from and support the SAP Center. Diridon Station will increase the ability and incentive for SAP Center patrons to travel to and from the SAP Center by BART, rather than by automobile.

Alum Rock/28th Street Station would provide 1,200 parking spaces and is two stops away from Diridon Station. Santa Clara Station would provide 500 parking spaces and is one stop away from the Diridon Station. Therefore, SAP Center patrons would be able to park at one of these two station locations and ride BART to Diridon Station, which is across the street from the SAP Center, to avoid the traffic congestion before and after events.

The SAP Center (capacity of approximately 17,500) and adjacent Diridon Station would be similar to the Oakland Coliseum (capacity of approximately 63,100) and Oracle Arena (capacity of approximately 19,600) and the adjacent Coliseum Station in terms of a BART station located near an event facility. However, the walk would be much shorter for transit riders from Diridon Station to SAP Center as the Diridon Station would be directly across the street from the SAP Center as opposed to the long walk from the Coliseum Station to the Oakland Coliseum or Oracle Arena. Approximately 170 events occur at SAP Center each year and approximately 200 events occur at the Oakland Coliseum and Oracle Arena (http://www.coliseum.com/). In 2016, of the tickets sold for Oakland Coliseum events, approximately 20 percent of the patrons accessed the events from the BART Coliseum Station (see attached 2016 Train Service Event Adjustments). Also in 2016, of the tickets sold for Oracle Arena events, approximately 20–30 percent of the patrons accessed the events from BART Coliseum Station.⁴ Projecting that 20 percent of the patrons would access SAP Center events by BART, 3,500 patrons would not need parking spaces. Projecting a much more conservative estimate that only 10 percent of the patrons (1,750 patrons) accessing SAP Center events would arrive and depart from Diridon BART Station, then the parking demand would be reduced by 1,750 spaces, which more than offsets the loss of 715 spaces. Replacement off-street parking would not be required. This assumes every patron travels alone in a vehicle, which overestimates the parking demand.

Other examples of event centers and arenas that rely upon nearby transit include:

- AT&T Park (San Francisco, CA) 41,915 seating capacity, 0.3 mile from Caltrain 4th & King Station. For Giants games, special event trains are provided prior to afternoon games and following the last out. Special event trains are also provided for other events such as the San Francisco Opera at AT&T Park.
- Georgia Dome/Mercedes-Benz Stadium (Atlanta, GA) 80,000/71,000 seating capacity, 0.3 mile from Metropolitan Atlanta Rapid Transit Authority (MARTA) Dome and Vine City Stations. A 2013 traffic study approximated 23 percent or 17,000 patrons utilized MARTA for events. The Georgia Dome was replaced by the adjacent Mercedes-Benz Stadium in 2017, which is expected to maintain or increase the levels of transit ridership to events.
- Staples Center (Los Angeles, CA) 21,000 seating capacity, 0.3 mile from Metrolink's Pico Station and 0.6 mile from 7th Street/Metro Station.
- LA Memorial Coliseum (Los Angeles, CA) 93,607 seating capacity, 0.4 mile from the Metrolink's Expo/Vermont and Expo/USC Stations. Special event trains are provided on four Metrolink lines to the LA Union Station with free transfers to the local Metro Rail Line to get to the Coliseum.

⁴ Duncan Watry, Project Manager – Core Capacity, BART – Planning, Development & Construction. Oakland California. Email to VTA dated May 3, 2017, regarding *2016 Train Service Event Adjustments*. See table below.

- Golden 1 Center (Sacramento, CA) 17,608 seating capacity, 0.2 mile from the Sacramento Regional Transit (SacRT) 8th & K Station. SacRT provides extra light rail service for up to 45 minutes after the conclusion of most events.
- US Bank Stadium (Minneapolis, MN) 70,000 seating capacity less than 400 feet from the Metro Transit US Bank Stadium Station. The environmental documentation estimated that 31,010 attendees would arrive with Lightrail and Commuter Rail by 2030.

The cost of riding BART to an SAP Center event would also likely be less than or comparable to the operating cost per mile to drive a vehicle (\$0.535/mile) to the SAP Center plus the cost to park at an off-street parking lot (in July 2017 parking rates were \$15-25 and cash only, depending on proximity). For example, a trip via transit from the BART Hayward Station to Diridon Station would cost approximately \$13.80 roundtrip based on current BART fare structure and a \$3.00 parking fee, whereas driving from the Hayward Station to the SAP Center would be an estimated 57.6 miles roundtrip at \$0.535/mile, plus \$20 parking, totaling approximately \$50.82. Assuming two travelers, the drive cost would be approximately \$50.82 compared to two BART riders at approximately \$24.60. In addition, the travel time would be expected to be less with BART because of traffic congestion, searching for parking, and walking to the SAP Center. Therefore, future SAP patrons would likely seek a less costly and faster trip via BART versus driving. As a result, parking demand at the SAP Center would also be reduced.

For these reasons, the SEIS/SEIR conclusion of *no adverse effect* does not change regarding long-term direct and indirect parking impacts.

		201			SERVICE EVEN		2016 IRAIN SERVICE EVENT ADJUSTMENTS OAKLAND COLISEUM
		Tickets	BART	% of			
WEEK SAT	SUN	Sold			Rider Origin %	rigin %	ADJUSTMENTS
6561-6521		up to 20K 20-35K	74 X X	20%	A Line L Line	26% 18% 13%	1 cancel z00 4M breaks (see note 1) 2. Cancel 200,500 AM breaks (see note 1)
		1007	ì		C Line M Line		
1905-2205		10-25K 25-30K 30-40K	2 8 2 2 2 8 2 2	20% 20%			1. Cancel all PM breaks (see note 2) 2. Same as "1 plus 2-HY event trains (see notes 3 & 4) 3 a Same as "2" nlus
							 b) Total of 2-HY and 2RY event trains c) 200's to 6-car trains starting with T-229 normal SCRAM size @225
		40K-45K	¥5	%07			4. a) Sarme as "5 plus b) Total of 4HY, 2FY event trains c) Last5-FY dispatches to A90 (lay up trains) return to SCRAM sizes
1305-1605	2	10-20K 20-30K	44 74	20% 20%	R/K Line A Line		1. No Adjustment. (<i>Normal Saturday 200 6-car sizing of 200's</i>) 2. Same as "1" plus 500's to be 9/10-cars from start of revenue until 18
1805-2105	- u	30-45K 45K-62K	10K	20% 20%	L Line C Line M Line	18% 11% 31%	 Same as "2" plus 100's to be 9/10-cars. a) Same as "3" plus 2-HY event trains (see notes 3 & 4) and swap lot
	1305-1605	10-20K	4K	20%	R/K Line	22%	b) 2.HY event trains (see notes 3 & 4) 1.First PM breaks with 509 at 21:02
					A Line L Line	20% 20%	(Normal Sunday 6-car sizing of 200's required) 2. Same as "1" plus 500's to be 8-cars from start of revenue until 1800
		20-30K 30-40K	8K 86	20% 20%	C Line M Line		3. Same as "2" plus 4-HY event trains and run long 200 8/9-car consis from available 400 series consists all daw
		40K-45K 45K-62K	10K 13K	20% 20%			 Some as "3" plus 2-RY event trains for a total of 4-HY. 2-RY Same as "4" plus another 2-RY for a total of 4-HY & 4-RY
	1700-2100		ò	2000			If req. add 1 more HY & 1more RY for 5-HY & 5-RY total (see notes 3 Same as 1305-1605 Raiders, but flem #2 allows for long 500's until EOI
Raiders	1805-2100 1305	20-30K 40K-62K	13K	20%	R/K Line		1.500'S &-cars after 1500.Cancel 200'S PM Breaks. Event trains: 2-HY 1.200's to be 8/9/10 cars after 1400, 500's to be 9/10 cars after 1800
	1325				A Line L Line C Line	29% 22% 11%	
	1735				U	10	
1905-2230		Up to 40K 50K-60K 60K-75K					
1600-2100	0	Up to 40K 50K-60K					Coming In 2017
	1305-1600	60K-75K 10-20K 20-30K					
	1725-2100	30-45K Up to 40K 50K-60K 60K-75K					
					ORACLE	E ARENA	
1800 or later concerts- 1930-2230		8K-10K 10K-17K 19K +	2:5K 3K 6K		R/K Line A Line L Line	17% 17% 7%	1. Cancel 200 and 500 PM breaks. 2. Swap 200's with 100's 3. Event trains: 1-HY, 1-RY
1930-2230	1800-2100	10K-15K 15K-19K 10K-15K 15K-17K 19K +	* ? * * * *	30% 30% 30% 30%	M Line C Line	6% 53%	
_		+YU2	4 4		AT&1		4. Extra event trains for closeout games 1-001 2-041 1-041
1235-1530 1935-2230 1305-1700 1805-2100	0 1305-1700	42K 42K 42K 42K 42K	5K 10K 10K 6K-7K	12% 24% 24% 13%	R/K Line A Line L Line C Line M Line	25% 17% 20% 27%	 No service adjustments. Use spare train as event train if available. 400's to be weekday peak 9/10-car sizes starting with T-445 at 14101 All 200's to be 6-cars until normal PM breaks. 500's 9/10-cars All 200's to Be Breaks. 500's 9/10-cars after 1500.
				191	BERKEL	EY FOO	I-Fri/Sat Night Game 1800 or later start 1-CY 1-HY 1-RY Cancel all PM br BERKELEY FOOTBALL
1305-1605	o	45K-52K 52K-62K 62K-72K	4K 5K 12K	8% 8% 17%	R Line A/K Line L Line C Line M Line	17% 23% 4% 11%	 2-RY Event Trains. Cancel 200 AM Breaks. Same as "1" plus run 400's at weekday 8/9-car sizes from revenue s until PM Breaks. Same as "2" plus cancel 200 PM Peaks. Run 400's as 8/9 car trains a 3. Same as "2" plus cancel 200 PM Peaks. Run 400's as 8/9 car trains a
NOTE (1) "Cancel AMbreak "Made" to their longer, peak trains are normally shortene all day. This service adjustrin	applies to th ss* applies to th period siz es. ** d (i. e. AM brea hent means that	e train breaks t Cancel AM breaks t ks are impleme the PM makee	hat occur aff aks " requires ented). By ca s do not nee	er the AM ru that the TM nceling AMI 1 to occ ur be	sh period and or Yard does oreaks, trains cause the trai	does not ap not break tr will operate ns are alrea	NOTE (1) "Cancel AMbreaks" applies to the train breaks that occur after the AM rish period and does not apply to early AMtrains that may start short and are subsequently Wede* to threir longer, peak period size as. "Cancel AM breaks, inequires that the TM or "Yard does not break trains to shorter, midday lengths. After the AM trush period, trains are normally shortened (i.e. AMbreaks are implemented). By canceling AMtreaks, trains with operate at peak period sizes (maximum train sizes peri SCRAM) all day. This service adjustment means that the PM makes do not need to occur because the trains are already at their normal PM peak size
NOTE (2) *Cancel PM brea shorter, evening lengths. Af rush period siz es (maximun	ks" applies to the ter the PM rush train sizes pe	e train breaks period, trains a	that occur al are normally all evening ur	ter the PM r shortened (i ttil end-of-re	ish period. *C e., PMbreaks venue (unless	ancel PMb are implerr another bre	NOTE (2) "Cancel PM breaks' applies to the train breaks that occur after the PM rush period. "Cancel PM breaks' requires that the TM or Yard does not break trains to shorter, evening lengths. After the PM rush period, trains are normally shortened (i.e., PM breaks are implemented). By canceling PM breaks, trains will operate at the at rush period sizes (maximum train sizes per the SCRAM) all evenue (unless another break time is dictated). Trains must be resized to SCRAM at end of service.
NOTE (3) Event trains coming from a specific yard are to be comprised of consists from that yard. For from HY, then Hayward Yard will provide two consists comprised of Hayward cars for the event.	ing from a spec d will provide tw	fic yard are to o consists corr	be comprise prised of Ha	ed of consist yward cars	s from that ya or the event.	rd. For exa	example. If the Service Adjustment calls for two 9-car event trains
NOTE (4) Event trains are at the discretion of OCC and are timed with the end of the game. NOTE (5) Referencing of 8/39/10 car consists is a flexible guideline simply meant to convey the	at the discretion 9/10 car consis	of OCC and a	re timed with juideline sim	the end of t ply meant to	he game. convey the ru	nning of the	briggest trains possible based on
availblity of equipment, ease	of consist as s	embly, & resou	Irces availble	. Situation u	sually involves	swaping 4	avaiblity of equipment, ease of consist as sembly. & resources availble. Situation usually involves swaping 400 series consists for 200 series consists. Revision Date 06/24/2016 Source: Dura on Warty, BART, E-mail May 3, 2017

Marburg Place Concerns

A number of comments, including two petitions, were submitted by residents of Marburg Place on Marburg Way and Destino Circle in San Jose, east of U.S. 101. The concerns raised focused on noise and vibration impacts, traffic, health and safety, stability of foundations, home values, and the history of the project's alignment.

This Master Response addresses the concerns raised by a number of these comments, including noise and vibration impacts, traffic, health and safety, stability of foundations, home values, and the history of the project's alignment. Other concerns are addressed in the individual responses to specific comments throughout this chapter.

Noise Impacts

Construction Noise: Sections 5.5.13.1, *Noise Impacts*, and 6.12.5.2, *BART Extension Alternative*, address noise impacts during construction activities. At the Marburg Place location, there are no tunnel portals planned. The construction noise would be solely from construction of the underground tunnel using the Tunnel Boring Machine (TBM). The TBM would go under approximately 30 residences at this location. For both the noise and vibration analysis, the current tunnel design shows that Marburg Place residents would be 50 feet from the tunnel centerline (for both the Twin-Bore and Single-Bore Options) based on the plans and profiles. At this depth, the groundborne noise level from the TBM is projected to be in the range of 26 to 28 A-weighted decibels (dBA), which is less than the FTA criterion of 38 dBA for groundborne noise for "occasional events," the applicable category based on the short-term nature of the event. Therefore, groundborne noise from tunneling would not be adverse or significant because the levels are less than the FTA criteria (*Transit Noise and Vibration Impact Assessment* 2006⁵) and no mitigation is required.

Operational Noise: Analysis of operational noise impacts at Marburg Place is presented in Table 4.12-21, *Projected Levels of Groundborne Noise for Twin-Bore Option*, for the closest sensitive receptor, as is standard practice in conducting technical noise analysis. At the request of the residents, VTA conducted further analysis to evaluate operational noise levels at each residence within Marburg Place. As shown in Table MR4-1 below, groundborne operational noise was calculated in the range of 24–28 dBA, which is below the FTA criterion of 35 dBA for groundborne noise exposure. Using everyday household appliances as an example, some high-end expensive dishwashers (\$2,000–\$2,500) produce groundborne noise in the range of 37–38 dBA. Therefore, the FTA criterion of 35 dBA for residences is less than the noise level of a quiet dishwasher. The groundborne noise of 24–28 dBA at the Marburg Place residences would be substantially below a quiet dishwasher, barely perceptible and well below the threshold established by FTA and no mitigation is required.

⁵ Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06, Federal Transit Administration, Office of Planning and Environment, May 2006.

Table MR4-1: Groundborne Noise Projections for the Silicon Valley Santa ClaraExtension (SVSX) and Marburg Common Community

Civil Station	Receiver Location	Land Use	SVSX Design Speed (mph)	Horizontal Distance to Near Track CL (feet)	Rail Depth (feet)	FTA GBN Criteria (dBA)	GBN Without Mitigation (dBA)
585	1512 Marburg Way	SFR	48	4	52	35	24 to 28
585	1508 Marburg Way	SFR	48	0	52	35	24 to 28
585	1504 Marburg Way	SFR	48	4	52	35	24 to 28
585	1500 Marburg Way	SFR	48	0	52	35	24 to 28
586	395 Destino Circle	SFR	48	5	52	35	24 to 28
586	393 Destino Circle	SFR	48	0	52	35	24 to 28
586	391 Destino Circle	SFR	48	7	52	35	24 to 28
586	389 Destino Circle	SFR	48	0	52	35	24 to 28
586	377 Destino Circle	SFR	48	0	52	35	24 to 28
586	379 Destino Circle	SFR	48	2	52	35	24 to 28
586	303 Destino Circle	SFR	48	24	52	35	24 to 28
586	301 Destino Circle	SFR	48	23	52	35	24 to 28
587	367 Destino Circle	SFR	48	1	51	35	24 to 28
587	365 Destino Circle	SFR	48	0	51	35	24 to 28
587	363 Destino Circle	SFR	48	4	51	35	24 to 28
587	309 Destino Circle	SFR	48	24	51	35	24 to 28
587	307 Destino Circle	SFR	48	24	51	35	24 to 28
587	305 Destino Circle	SFR	48	26	51	35	24 to 28
588	321 Destino Circle	SFR	48	34	50	35	23 to 27
588	323 Destino Circle	SFR	48	13	50	35	24 to 28
588	325 Destino Circle	SFR	48	0	50	35	24 to 28
588	327 Destino Circle	SFR	48	2	50	35	24 to 28
588	319 Destino Circle	SFR	48	0	50	35	24 to 28
588	317 Destino Circle	SFR	48	0	50	35	24 to 28
588	315 Destino Circle	SFR	48	0	50	35	24 to 28
588	313 Destino Circle	SFR	48	2	50	35	24 to 28
588	311 Destino Circle	SFR	48	23	50	35	24 to 28
589	335 Destino Circle	SFR	48	0	50	35	24 to 28
589	333 Destino Circle	SFR	48	0	50	35	24 to 28
589	331 Destino Circle	SFR	48	0	50	35	24 to 28
589	329 Destino Circle	SFR	48	0	50	35	24 to 28
590	339 Destino Circle	SFR	48	0	49	35	24 to 28
590	337 Destino Circle	SFR	48	0	49	35	24 to 28

Vibration Impacts

Construction Vibration: Section 5.5.13.2, Vibration Impacts, and Section 6.12.5.2, BART Extension Alternative, under Impact BART Extension NOI-2 provide the analysis of vibration during tunnel construction. The TBM vibration is projected to be between 76 and 78 vibration decibels (VdB), which will slightly exceed the FTA criterion of 75 VdB for an "occasional event," the applicable category based on the short-term nature of the event. This exceedance may occur for a period of up to 4 days per tunnel as the TBM passes under each residence. Mitigation Measures NV-CNST-P through NV-CNST-S, described in Chapter 5, Section 5.5.13, Noise and Vibration, require the Contractor to submit a Construction Vibration Control and Monitoring Plan, which includes real-time vibration monitoring at the nearest residences during the time period when the residences would be most affected. Specifically, Mitigation Measure NV-CNST-S: Implement Measures to Reduce Vibration from Muck Extraction and Supply Trains is designed to ensure the FTA annovance criteria of 72 VdB is not exceeded. In addition, pre- and post-construction building surveys will be performed to document the effects on the structures and foundations of nearest residences (i.e. structural damage, if any). Implementation of these mitigation measures would thus reduce this short-term construction vibration impact to not adverse under NEPA and to a less-than-significant level under CEOA.

Operational Vibration: Analysis of operational vibration at Marburg Place is presented in Table 4-12 in the Noise and Vibration Technical Report for the closest sensitive receptor, as is standard practice in conducting technical vibration analysis. At the request of the residents, VTA conducted further analysis to evaluate operational vibration levels at each residence within Marburg Place. As shown in Table MR4-2 below, groundborne vibration from BART operations was calculated in the range of 60 to 64 VdB, which is below the FTA criteria of 72 VdB for groundborne vibration. Therefore, the groundborne vibration of 60–64 VdB at the Marburg Place residences would be well below the threshold established by FTA in the Transit Noise and Vibration Impact Assessment (2006).

Table MR4-2: Groundborne Vibration Projections for the Silicon Valley Santa ClaraExtension (SVSX) and Marburg Commons Community

Civil Station	Receiver Location	Land Use	SVSX Design Speed (mph)	Horizontal Distance to Near Track CL (feet)	Rail Depth (feet)	FTA GBV Criteria (VdB)	Max 1/3 OB GBV Without Mitigation (VdB)
585	1512 Marburg Way	SFR	48	4	52	72	60 to 64
585	1508 Marburg Way	SFR	48	0	52	72	60 to 64
585	1504 Marburg Way	SFR	48	4	52	72	60 to 64
585	1500 Marburg Way	SFR	48	0	52	72	60 to 64
586	395 Destino Circle	SFR	48	5	52	72	60 to 64
586	393 Destino Circle	SFR	48	0	52	72	60 to 64
586	391 Destino Circle	SFR	48	7	52	72	60 to 64
586	389 Destino Circle	SFR	48	0	52	72	60 to 64
586	377 Destino Circle	SFR	48	0	52	72	60 to 64
586	379 Destino Circle	SFR	48	2	52	72	60 to 64
586	303 Destino Circle	SFR	48	24	52	72	60 to 64
586	301 Destino Circle	SFR	48	23	52	72	60 to 64
587	367 Destino Circle	SFR	48	1	51	72	60 to 64
587	365 Destino Circle	SFR	48	0	51	72	60 to 64
587	363 Destino Circle	SFR	48	4	51	72	60 to 64
587	309 Destino Circle	SFR	48	24	51	72	60 to 64
587	307 Destino Circle	SFR	48	24	51	72	60 to 64
587	305 Destino Circle	SFR	48	26	51	72	60 to 64
588	321 Destino Circle	SFR	48	34	50	72	59 to 63
588	323 Destino Circle	SFR	48	13	50	72	60 to 64
588	325 Destino Circle	SFR	48	0	50	72	60 to 64
588	327 Destino Circle	SFR	48	2	50	72	60 to 64
588	319 Destino Circle	SFR	48	0	50	72	60 to 64
588	317 Destino Circle	SFR	48	0	50	72	60 to 64
588	315 Destino Circle	SFR	48	0	50	72	60 to 64
588	313 Destino Circle	SFR	48	2	50	72	60 to 64
588	311 Destino Circle	SFR	48	23	50	72	60 to 64
589	335 Destino Circle	SFR	48	0	50	72	60 to 64
589	333 Destino Circle	SFR	48	0	50	72	60 to 64
589	331 Destino Circle	SFR	48	0	50	72	60 to 64
589	329 Destino Circle	SFR	48	0	50	72	60 to 64
590	339 Destino Circle	SFR	48	0	49	72	60 to 64
590	337 Destino Circle	SFR	48	0	49	72	60 to 64

Traffic during Construction

Construction activities between the East Tunnel Portal and Alum Rock/28th Street Station would occur in the vicinity of Marburg Place. The residents of Marburg Place stated concerns regarding traffic disruptions during construction.

The East Tunnel Portal, which may be used to launch or extract the TBM, is located near Las Plumas Avenue. As stated in Section 5.2.4.1, *Construction Staging Areas*, the trucks and construction vehicles accessing the construction staging areas (located 2,000 feet from Marburg Commons, see Figure 5-2, *Proposed Mabury Road and U.S. 101 Construction Staging Areas*) for the East Tunnel Portal would use local streets such as Las Plumas Avenue, Mabury Road, Nicora Avenue, and Lenfest Road. There would be no street closures near Marburg Commons and less than 30 haul trucks during the peak hour operating east of U.S. 101 as shown in Figure 5-12, *Truck Haul Routes*, and quantified in Table 5-1, *Haul Road Volumes and Number of Truck Trips for the BART Extension Alternative*, for the approximately 7 years of construction activities at this location. This would result in a *not adverse* effect and less-than-significant traffic impact on the roadways serving the Marburg Commons.

After the East Tunnel Portal, the nearest cut-and-cover construction activity to Marburg Place would be at the Alum Rock/28th Street Station site. Alum Rock/28th Street Station is on the other side of U.S. 101 from Marburg Commons. The trucks and construction vehicles would use East Julian Street, McKee Road, 28th Street and Santa Clara Streets to access the construction staging areas to construct this station (see Figure 5-3, *Proposed Alum Rock Construction Staging Areas*). This would result in an adverse and significant construction traffic impact on the roadways in the vicinity of the Alum Rock/28th Street Station, including access to U.S. 101, that would impact the area for up to 7 years.

The SEIS/SEIR identifies mitigation measures TRA-CNST-A through TRA-CNST-D, described in Chapter 5, Section 5.5.1, *Construction Outreach Management Program*, to reduce construction traffic impacts for vehicular traffic, bicyclists, and pedestrians. However, while reduced, construction traffic impacts would remain *adverse* under NEPA and *significant and unavoidable* under CEQA after the implementation of mitigation.

Health and Safety

No comments identify the specific nature of their health hazard concerns. Therefore, this Master Response addresses electromagnetic interference (EMI)/ electromagnetic field (EMF) issues, hazardous materials, and safety and security. There is no evidence to suggest that underground trains and tunnels result in health hazards. Regarding air quality, nitrogen oxide construction emissions for the entire project were determined to result in an adverse and significant impact (see Table 5-3, *Construction Emissions Related to the BART Extension Alternative*). However, these emissions would be dispersed over 6 miles and not concentrated at any one location. Therefore, nitrogen oxide construction emissions would not be adverse

or significant from construction of the Alum Rock/28th Street Station near Marburg Commons.

As stated in Section 4.6, *Electromagnetic Fields and Electromagnetic Interference*, the potential for businesses and residences at ground level to experience EMF exposure from the BART Extension would be minimal, and present evidence suggests that there would be no demonstrable health risks from exposure to EMF. The exposure for BART Extension passengers and operators, passengers and BART employees in the station, and other BART Extension workers would be well below the guidelines for preventing health effects. A *no adverse effect* under NEPA would occur.

As stated in Section 4.10, Hazards and Hazardous Materials, the project's Initial Site Assessment (ISA) identified 437 records of sites with known releases of hazardous materials within a 1-mile radius of the BART Extension. Based on the findings of the ISA, only 43 of the 437 hazardous materials release sites are under active regulatory oversight and/or have land use restrictions and are located on, adjacent to, or hydraulically upgradient of the BART Extension (Figure 4.10-1, Hazardous Materials Locations). There are no hazardous material sites identified adjacent to Marburg Place that would be disturbed during construction of the BART Extension. The trains would not be transporting any hazardous materials. Therefore, the potential for health hazards from disturbance of hazardous materials sites that would affect Marburg Place is low. Nonetheless, a Contaminant Management Plan will be implemented through site-specific Remedial Action Plans (RAPs) prepared for the BART Extension and approved by the Regional Water Quality Control Board (RWQCB). Under the oversight of the RWQCB, compliance with the CMP and BART Extension RAPs is mandatory. In accordance with the Contaminant Management Plan, the RAPs will identify site-specific hazards to human and ecological receptors and propose preferred site-specific remedial strategies. With compliance with the Contaminant Management Plan and RAPs, there would be no adverse effect.

As detailed in Section 4.13.4.2, *BART Extension Alternative*, under the subheading, *System Safety*, a Safety and Security Certification Program (SSCP) has been developed for the BART Extension to ensure that it is designed in compliance with the BART Facilities Standards Design Criteria and applicable safety and security design codes. The SSCP requires that compliance be documented and applicable project features and design characteristics itemized. Because the Single-Bore Option tunnel and stations are deeper that the Twin-Bore Option tunnel and stations, more extensive measures will be required to ensure compliance with applicable codes and standards. Implementation of the BART Extension Alternative on public safety would not be adverse, and no mitigation measures are required.

Stability of Foundations

Sections 4.8 and 6.8, *Geology, Soils, and Seismicity,* describe the soil and geological characteristics along the project alignment. Construction of the BART Extension Alternative has the potential to cause surface settlements and ground movements during construction of

the tunnel and cut-and-cover stations. Section 5.5.9.2, *Surface Settlement*, addresses potential impacts from tunnel boring activities. The maximum settlement from the Twin-Bore construction methodology is approximately 0.5 inch occurring at the trough between the two bores. The maximum settlement with the Single-Bore construction methodology is 1 inch. To avoid substantial settlement and ground movements, Mitigation Measures GEO-CNST-B through GEO-CNST-F, described in Chapter 5, Section 5.5.9, *Geology, Soils, and Seismicity*, would be implemented. These mitigation measures include preconstruction surveys and monitoring during tunneling activities to enable modifications to the tunneling activities if necessary. Both preconstruction and post-construction surveys are included in Mitigation Measure GEO-CNST-B: Implement Preconstruction and Post-Construction Building Surveys for Settlement. The project is not expected to result in adverse effects or significant impacts related to ground settlement to structures.

Based on reviews of the State Water Resource Control Board's GeoTracker database, there are no records of a landfill at Marburg Place. Furthermore, based on review of historical aerials (1948, 1960, 1987, and 2002) and the relatively flat terrain of the site, there is no apparent evidence of a former landfill at Marburg Place. In 2002, it appears that the site was a poorly maintained commercial/light industrial facility or junk yard, which is very different than a landfill where trash is buried and can settle over time.

Home Values

Economic impacts, such as changes in property values, of a project are only subject to CEQA if the economic impacts themselves result in potentially significant impacts on the physical environment. Based on studies of property values near transit stations, prepared for BART, U.S. Department of Transportation, Federal Transit Administration, and American Public Transportation Association in partnership with the National Association of Realtors, depreciation of home values is unlikely to occur.⁶ Under NEPA, although purely economic impacts are not considered an environmental impact, an environmental document should discuss economic impacts that are interrelated with environmental impacts. As stated in the SEIS/SEIR, there would be no significant environmental impacts (such as noise and vibration) of BART tunnel operation on land uses aboveground. In an appraisal process commissioned by Sound Transit for the Beacon Hill Tunnel Project, the appraiser found no measurable change in the value of the properties as a result of tunnel easements where the underground tunnel did not create adverse surface impacts.⁷

⁶ Center for Neighborhood Technology. 2013. *The New Real Estate Mantra: Location Near Public Transportation*. Available: http://www.cnt.org/publications/the-new-real-estate-mantra-location-near-public-transportation. Center for Transit-Oriented Development. 2008. *Capturing the Value of Transit*. Available: http://ctod.org/pdfs/2008ValueCapture.pdf.

Strategic Economics. 2014. *Property Value and Fiscal Benefits of BART*. Available:

https://www.bart.gov/sites/default/files/docs/2014-08%20BARTPropValues_Final.pdf.

⁷ Smith, L.J., Beaver, J.A., White, J.G., and Hiatt, Z.R. 2005. Over and Under: A Practical Guide to the Condemnation of Aerial Guideway and Tunnel Easements. Available: http://www.millernash.com/over-and-under-a-practical-guide-to-the-condemnation-of-aerial-guideway-easements-and-tunnel-easements/.

In addition, VTA's process for purchasing real property is addressed in Master Response 5, Real Estate Acquisition for VTA Projects.

History of U.S. 101 Alignment Alternatives Considered

Commenters had questions on the history of the U.S. 101 alignment alternatives. The following provides a history of the U.S. 101 Alignment Alternatives evaluated in all previous studies and environmental documents prepared for the project. Volume I, Chapter 2, Section 2.4, *Alternatives Considered and Withdrawn*, was revised in response to comments to include discussion of the evaluation of these alternatives.

March 2004 Silicon Valley Rapid Transit Corridor Draft EIS/EIR

- Page 3.4-23 through 3.4-26 provide option descriptions.
 - U.S. 101/Diagonal Option similar to current alignment.
 - Railroad/28th Street Option.
- Figure 4.13-4l shows vibration mitigation for the U.S. 101/Diagonal Option.
- Page 4.13-52 shows vibration impacts of three residences for the U.S. 101/Diagonal Option and 42 for the Railroad/28th Street Option.
- Pages 4.13-59 and 4.13-61 provide tables of vibration impacts without mitigation.
- Page 4.13-68 provides a table of vibration impacts after mitigation (none for both options).

May 26, 2004 Silicon Valley Rapid Transit (SVRTC) Corridor Policy Advisory Board

• Selected U.S. 101/Diagonal Option – similar to current alignment.

November 2004 Silicon Valley Rapid Transit Corridor Final EIR, Volume I (same information as Draft EIS/EIR)

- Pages 3.4-23 through 3.4-26 provide option descriptions.
 - U.S. 101/Diagonal Option similar to current alignment.
 - Railroad/28th Street Option.
- Figure 4.13-41 shows vibration mitigation for the U.S. 101/Diagonal Option.
- Page 4.13-52 shows vibration impacts of three residences for the U.S. 101/Diagonal Option and 42 for the Railroad/28th Street Option.
- Pages 4.13-59 and 4.13-61 provide tables of vibration impacts without mitigation.
- Page 4.13-68 provides a table of vibration impacts after mitigation (none for both options).

December 9, 2004, VTA Board of Directors Certified Silicon Valley Rapid Transit Corridor EIR and Approved Recommended Project

- Attachment C Recommended Project Description
- Pages 2-10 through 2-12 Selected U.S. 101/Diagonal Option.

January 2007 Silicon Valley Rapid Transit Corridor Draft Supplemental EIR

- The Twin-Bore Option current plan and profile at U.S. 101 was first identified in this document, under the Marburg development and similar to the current alignment.
- Chapter 1, page 12 describes Design Change 32, U.S. 101 Alignment, previously "Tunnel curves under U.S. 101 in conflict with abandon bridge foundation ..." change is to "Shift alignment to the east to avoid abandoned bridge foundations."
- Chapter 1, page 14, Figure 1.3-3 identifies the location of Design Change 32.
- Chapter 3, page 15, Figure 3.2-3 identifies the location of Design Change 32.
- Chapter 3, page 19 change avoids bridge foundations and allows BART speed to increase from 50 to 70 mph around curve.
- Chapter 4, page 183 states that there would be no groundborne noise or vibration impacts with the design change.
- Appendix B, Figure B-41 shows 2004 10 percent conceptual engineering and 2007 change plan and profile.

May 2007 Silicon Valley Rapid Transit Corridor Final Supplemental EIR

- Page 2-3, Design Change 32 approved.
- Page 2-11, Figure 2.2-3 identifies the location of Design Change 32.
- Appendix C, Figure C-24 shows plan and profile of Design Change 32.

March 2009 Silicon Valley Rapid Transit Corridor Draft EIS and 4(f) Evaluation (federal action)

- Page 2-52, Figure 2-16 identifies the tunnel at U.S. 101, under the Marburg development and similar to the current alignment.
- Page 2-53 describes a tunnel at U.S. 101.
- Volume II, Appendix C, Figure C-07 identifies the plan and profile at U.S. 101.

March 2010 Silicon Valley Rapid Transit Corridor Final EIS and 4 (f) Evaluation (federal action)

- Volume II, Page 1-2 the Recommended Project is the 10-mile Berryessa Extension that terminates at U.S. 101. However, the Final includes 16-mile extension and tunnel at U.S. 101.
- Page 2-60, Figure 2-16 identifies a tunnel at U.S. 101, under the Marburg development and similar to the current alignment.
- Page 2-64, describes a tunnel at U.S. 101, under the Marburg development and similar to the current alignment.
- Volume II, Appendix C, Figure C-06 identifies the plan and profile at U.S. 101, under the Marburg development and similar to the current alignment.
- Volume II, Appendix C, Figure C-06 identifies the plan and profile at U.S. 101 under the Marburg development and similar to the current alignment.

November 2010 BART Silicon Valley Draft 2nd Supplemental EIR (only addressed BART Phase I to the north)

February 2011 BART Silicon Valley Final 2nd Supplemental EIR (only addressed BART Phase I to the north)

Real Estate Acquisition for VTA Projects

Several comments were received related to VTA's real estate acquisition process.

All VTA appraisal, acquisition, and relocation activities follow State and Federal regulations as applicable. VTA has prepared a handout titled *Real Estate Acquisition for VTA Projects* that describes how VTA purchases real property and addresses frequently asked questions. This handout is attached.

Real Estate Acquisition for VTA Projects



As the Congestion Management Agency for Santa Clara County, delivering transportation projects is a fundamental role VTA performs for the region, and real estate acquisition is an essential part of project delivery. VTA's transportation projects are complex and diverse, and include transit, bicycle, pedestrian, and highway improvement projects, VTA's BART Silicon Valley Program, and other major improvement projects.

All VTA appraisal, acquisition, and relocation activities follow the California Government Code, Code of Civil Procedure and Code of Regulations, as well as the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended, where applicable. More detailed information on how VTA acquires real estate can be found below.

This information generally describes how VTA purchases real property and addresses frequently asked questions by members of the community.

What Types of Real Property Does VTA Purchase?

The real property interests that VTA acquire may be permanent or temporary, may consist of an entire property or only a portion of the property, and may involve surface, subsurface, and/or aerial rights.

The three types of property interests that VTA typically purchases include the following:

- Fee simple permanent full ownership of all property interests in either an entire property or a portion of a property.
- Easements the permanent right to use an aerial, surface, and/or subsurface property interest for purposes such as access to and/or installation of transportation improvements or utilities. Easements do not include the full bundle of property rights included in a fee simple interest.
- Temporary Construction Easements a temporary right for a specific time period, typically for construction and/or construction staging purposes. Property encumbered by this type of easement would typically be returned to the property owner based on the terms of the easement. Temporary easements may be needed for several weeks or up to several years.

How are Property Owners Protected When VTA Purchases Real Property?

Property owners' rights are protected by the federal and State Constitutions and applicable State and federal laws and regulations. These include, but are not limited to:

- Federal: U.S. Constitution, the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act), 49 Code of Federal Regulations Part 24
- State: California Constitution, California Government Code, California Relocation and Real Property Acquisition Guidelines (CCR Title 25, Chapter 26), and the California Code of Civil Procedure.

The acquisition process typically does not begin until after the planning process and environmental clearance are completed and the engineering design work has confirmed the parcels and types of property interests that are required to construct and operate the proposed project. At that time, maps are prepared showing the exact boundaries of needed real property, along with their legal descriptions.

When Will Property Owners Know Whether Their Property Will Be Acquired?

If property is needed to construct a transportation project, the environmental document would identify properties within the boundaries of the proposed project and each of the project alternatives (if applicable). Typically, engineering design is not 100% complete at the environmental clearance phase; however, it is sufficient to identify needed properties to complete environmental clearance. An important note is that the design could be refined and optimized based on public input during the environmental process, and options and alternatives that are not preferred may be eliminated. This means that when a property interest is identified in a draft environmental document, it does not necessarily mean that VTA will acquire that property or property interest. Property owners will know if their property or a portion of their property is required for construction or operation of the project after environmental clearance is complete and engineering progresses to more detailed design work.

When Does VTA Purchase Real Property for Transportation Projects?

Unless an owner voluntarily offers to sell his/her real property, VTA does not acquire any real property until after environmental review has been completed and certified by the VTA Board of Directors.

The Figure below illustrates when property acquisition typically commences in a Capital Project.

Figure: Process Leading to Property Acquisition

Environmental Process:

- 1. Draft environmental document – Proposed Project and potential environmental impacts
- 2. Public review period of environmental document
- 3. Final environmental document
- 4. VTA Board approves final environmental document. Federal agency approvals (if applicable)

Engineering Design:

- 1. Advance engineering and design for Project
- 2. Finalize real property needs to construct Project
- 3. Determine exact boundaries of real estate, prepare maps, legal description

Property Acquisition:

- 1. Independent Appraisal of Fair Market Value
- 2. VTA presents offer, attempts to resolve owner concerns
- 3. Agreement, escrow and closing
- 4. If no agreement, VTA Board considers adoption of Resolution of Necessity and the filing of an eminent domain action

When and How Will Property Owners Be Contacted?

A member of VTA's Community Outreach Team may contact a property owner during the planning and environmental review phase for a proposed project. Community Outreach staff has current information about the proposed project and is available to assist property owners with general project information and answer questions or address concerns they may have regarding the proposed project and schedule of key activities.

Due to statutory and/or regulatory prohibitions, and as a general matter, VTA's Real Estate staff cannot discuss potential acquisitions with property owners before a project is environmentally cleared, including, but not limited to, discussions relating to potential purchase of specific property interests, potential current or future property values, and potential compensation.

VTA's Real Estate staff typically do not contact property owners until after environmental clearance is complete and after the engineering team has confirmed the exact boundaries and nature of the property interests required for construction of the project. The initial contact will likely concern the scheduling of an appraisal inspection, which property owners are encouraged to attend. A VTA acquisition agent will be assigned and will share his/her contact information with the property owner and will be available throughout the acquisition process.

Major Capital Projects are often designed and constructed in multiple phases, which means that the property acquisition phase may also occur in phases. Depending on the size of the project and its phasing, purchase of a particular real estate interest may occur antyime from before construction begins to several years after construction commences. This means a property owner may be contacted by a member of VTA Real Estate staff sometime before construction starts or up to several years after construction starts.

What Are the Steps During the Acquisition Process?

If and when it is determined that a specific property or property interests are required to construct a project, VTA will hire an independent licensed appraiser to determine the Fair Market Value of the proposed acquisition. The appraisal typically occurs after environmental clearance is complete and after the engineering team confirms the boundaries and nature of the needed property interest.

VTA will then prepare an offer based on just compensation (fair market value, as defined under California law) and present the offer to the property owner. The property owner can accept the offer or make a counter-offer to VTA. If the property owner desires to hire his/her own appraiser, VTA will reimburse the owner for his/her costs for the appraisal up to \$5,000.

After VTA and the property owner agree on the purchase price and other terms and conditions, a contract will be signed between the parties, and escrow will be opened. During escrow, issues affecting the title will need to be resolved. Upon close of escrow, the property owner will be paid the agreed upon purchase price, and the property will be conveyed to VTA.

How are Properties Valued and What Compensation is Paid by VTA?

Property owners must be paid "just compensation" for the property. This means that property owners should receive the fair market value, as defined under California law, for the property. VTA's appraiser is required to identify the fair market value of the property, ignoring any increase or decrease in the value of the property that results from the project. If VTA is acquiring only a portion of an owner's property, VTA is also required to pay severance damages if the proposed project causes a decrease in value to the remainder of the property. Additionally, businesses may be eligible for compensation for damages for loss of goodwill if they can demonstrate such losses as required under state law.

Eligible property owners and tenants who are required to relocate as a result of the acquisition may also be entitled to relocation benefits as provided by law.

What If I Don't Want to Sell My Property to VTA?

State law authorizes certain public agencies, including VTA, to purchase private property even if an owner does not wish to sell his/her property or property interest. This eminent domain authority applies to situations where findings can be made that the subject property is required for the project, the public interest and necessity require the project, and the project is planned or located in a manner that is compatible with the greater public good and the least private injury.

VTA always seeks to first enter into voluntary purchase agreements with property owners and strives to resolve an owner's concerns to the extent that is reasonably feasible. However, in some situations, property owners are either unresponsive or negotiations have reached an impasse and possession of the property interest is needed to allow construction to remain on schedule. When such a situation occurs, VTA staff may seek the VTA Board of Directors' (Board) approval to adopt a Resolution of Necessity. This authorizes VTA staff to file an eminent domain action. The property owner will receive notice of the hearing on the Resolution of Necessity and may appear before the Board to be heard. The issue of compensation is not part of the hearing.

If the Board adopts the Resolution of Necessity, thereby authorizing the filing of an eminent domain action, VTA will file a complaint and if necessary, a motion to obtain a court order for prejudgment possession of the property. The issue of compensation will be determined by a judge or jury unless the parties can resolve the matter. VTA will continue to try to resolve the terms of the proposed acquisition with the property owner throughout the eminent domain process.

Disclaimer: This information is not, nor is it intended to be, legal advice. This information is only intended to provide a general description of a public process. This information is not, and is not intended to be, an announcement of an intent to acquire any private property.

How to Reach Us

For more information, please contact VTA at *community.outreach@vta.org*, (408) 321-7575 or TTY for the hearing-impaired (408) 321-2330.



Why Santa Clara is a Terminal Station

Many comments inquired as to why the BART Extension Project extended into Santa Clara and why the alignment did not terminate at San Jose Diridon Station, and questioned if the ridership between Diridon and Santa Clara justified the extension into Santa Clara.

Volume I, Chapter 1, Section 1.4, *BART Extension Project History*, summarizes all the planning efforts for the project, which includes Santa Clara Station. In 2001, VTA completed a Major Investment Study (MIS) that evaluated the alignment and transportation technology for the Silicon Valley Rapid Transit Corridor. The purpose of this study was to address the potential benefits and impacts of alternative transportation investment strategies, leading to the selection of a Preferred Investment Strategy for the corridor. This study resulted in the selection of the Union Pacific Railroad corridor with BART as the preferred technology. Station locations included Milpitas, Berryessa, Alum Rock, Downtown San Jose, Diridon, and Santa Clara, with a maintenance and storage facility at Newhall Yard. The MIS was adopted by the VTA Board of Directors in November 2001. The VTA Board of Directors have continued to support this project through certification and approval of the recommended project in the 2004 Final EIR and 2007 Final Supplemental EIR.

In November 2000, the voters in Santa Clara County approved Measure A, a 30-year halfcent sales tax devoted to specified public transit capital improvement projects, which include extending BART from Alameda County to the cities of Milpitas, San Jose, and Santa Clara. Since that time, Santa Clara County voters have approved two additional sales tax ballot measures. In 2008, voters passed an eighth-cent 30-year sales tax dedicated solely to the operation, maintenance, and infrastructure renewal costs of the BART extensions in Santa Clara County. This tax became effective in March 2012. In 2016, voters passed a half-cent 30-year sales tax for transportation priorities that became effective in April 2017. Both of these sales tax measures supporting the extension to Santa Clara were approved by over twothirds of the voters.

Table 3-13, 2035 Forecast Year Average Weekday Ridership by Station with the BART *Extension Alternative*, identifies Santa Clara Station as having 7,781 projected daily riders. This represents over 15 percent of the Phase II BART ridership. Transit ridership in the corridor is expected to increase by over 20,000 weekday boardings with the BART Extension, as shown in Table 3-11, 2035 Forecast Year No Build and BART Extension Alternative Average Weekday Boardings by Transit Operator. While some ridership will be diverted from other transit modes, the project will generate new transit riders primarily diverted from automobiles.

Volume I, Chapter 1, Section 1.2.1, *Purpose*, highlights the support of local and regional land use plans and facilitates efforts of the City of Santa Clara to direct business and residential investments in the vicinity of the existing Santa Clara Caltrain Station. The City of Santa

Clara has also supported a BART station at this location by incorporating the Santa Clara Station Area Plan into the Santa Clara General Plan. The Santa Clara Station Area Plan was jointly prepared by the Cities of San Jose and Santa Clara and VTA to guide future development in the area and includes Santa Clara Station.

Volume I, Chapter 1, Section 1.2.2.2, *Incomplete Regional Transit Connectivity*, describes the critical transportation gaps that the Phase II Extension would fill, including connecting the three major central business districts of the Bay Area to higher density residential and employment areas and existing and future transit services. The proposed project does not extend BART service from the East Bay through San Jose to San Francisco. A BART extension to Santa Clara will allow East Bay passengers a direct link, or one seat ride, to Santa Clara, and from there a direct connection to the Mineta San Jose International Airport and Avaya Stadium by bus transit service. As outlined in Volume I, Chapter 1, Section 1.2.2.1, *Continuing Rapid Growth in Travel Demand*, residents will have access to major employment centers from Santa Clara, such as San Jose State University (weekday population of over 40,000 students, faculty and staff members, and visitors), which contributes to a job center in downtown San Jose, and to the City of Santa Clara, which is expected to see an increase in employment and activity centers in Alameda and Contra Costa Counties for residents of the City of Santa Clara.

Therefore, as Santa Clara Station was included as part of the 2001 MIS Preferred Investment Strategy adopted by VTA's Board of Directors; was included in the recommended project in the 2004 Final EIR and 2007 Final Supplemental EIR approved by VTA's Board of Directors; was included in the 2000, 2008, and 2016 Santa Clara County sales tax measures approved by over two-thirds of the voters; is projected to carry over 7,700 daily riders in 2035 while also increasing overall transit ridership in the corridor; and has been supported by the City of Santa Clara through incorporation into the City of Santa Clara's General Plan as the Santa Clara Station Focus Area, Santa Clara Station has remained as one of the four Phase II Extension Project stations.