

2. AREA TRANSPORTATION SYSTEM

The transportation system serving the site includes roadway facilities, pedestrian and bicycle facilities, and transit service. The existing transit, bicycle, and pedestrian facilities and services and planned improvements that will support travel to the site by modes of transportation other than driving alone are described below.

EXISTING TRANSIT SERVICE

Existing transit service to the project site and vicinity includes VTA bus routes and Caltrain commuter rail service. There are two transit stops adjacent to the project site: southbound 822 Ace Gray Line Shuttle stop on the west side of N. Wolfe Road, and a westbound 822 Ace Gray Line Shuttle and VTA Route 304 stop on the northeast corner of E. Arques Avenue and N. Wolfe Road. More information about these and other nearby transit routes are described below.

The Santa Clara Valley Transportation Authority (VTA) provides bus, light rail, and paratransit services to Santa Clara County. Five VTA bus routes operate in the project vicinity: two limited stop bus routes (Routes 304 and 328), two local bus routes (Routes 26 and 55) and one community bus route (Route 32). VTA Route 304 connects to the Sunnyvale Caltrain Station and has three bus stops near the project site: one on the northwest corner of the N. Wolfe Road and E. Arques Avenue intersection, one on the north side of E. Arques Avenue west of Deguigne Drive, and one on the south side of E. Arques Avenue just east of Commercial Street.



Caltrain is a commuter heavy rail service that runs from downtown San Francisco (4th and King Streets) to downtown San Jose (Diridon Station), with a limited number of commute period trains running farther south to Gilroy. During commute periods, Caltrain offers express service ("Baby Bullet") between downtown San Jose and San Francisco, which allows the trip between San Francisco and San Jose to be made in one hour. This service stops at a limited number of stations including the Sunnyvale Station. The project site is located equidistant between the Sunnyvale Station and the Lawrence Station. The Sunnyvale Station is located near the intersection of Sunnyvale Avenue and West Evelyn Avenue and is about a 1.3-mile walking distance from the site. The Lawrence Station located near the intersection of San Zeno Way and Sonora Court and is about a 1.4-mile walking distance from the site.



Caltrain has two shuttles that serve destinations near the project site. The Lawrence Station Duane Avenue Shuttle route serves the Lawrence Caltrain station and loops up the Lawrence Expressway to Stewart Drive and E. Arques Avenue. The 999 E. Arques Avenue stop is the closest shuttle stop to the project site on the Lawrence Station Duane Avenue Shuttle route. The project includes provisions for a new on-site shuttle stop that may be used by this route. The second shuttle route is the Mountain View Duane Avenue Shuttle route, which serves the Mountain View Caltrain station, plus points along E. Wolfe Road, Stewart Drive, and E. Arques Avenue.

There are no Caltrain shuttles that serve the site and the Sunnyvale Caltrain station. Commuters can use VTA Route 32 and 26 or Route 304 to travel between the site and the Sunnyvale Caltrain station.

The *Caltrain Modernization Program* will electrify the Caltrain system and, in turn, improve the performance, operating efficiency, capacity, safety, and reliability of Caltrain's rail service. Electrification will help meet increasing ridership and is scheduled to be complete by 2019.

Altamont Commuter Express (ACE) is a commuter heavy rail service that runs from Stockton to downtown San Jose (Diridon Station) via Livermore and Fremont and provides an alternative



to driving over the Sunol Grade (I-680). ACE has a stop located at the Great America rail station in the City of Santa Clara. Service on ACE is only offered during commute periods, with three trains inbound to San Jose during the AM peak period and three trains outbound to Stockton during the PM peak period. ACE also provides shuttles which connect to ACE stations. The 822 Ace Gray Line Shuttle has a stop on N. Wolfe Road, across the street from the project site, and a stop on the north side of E. Arques Avenue, just west of Deguigne Drive.

Figure 2 shows the existing transit services near the project site, which are described in more detail below and summarized in **Table 1**. Included in the table are the origin and destination, the operating hours, the headways, and the average peak load factor for each bus route and rail line. The average peak load factor is a measure of resource utilization. It compares the average peak number of passengers aboard at any time during the peak period to the supply of seats on each bus. For all-day service, the average peak load factor for the entire day for those bus stops that serve the project site is reported.



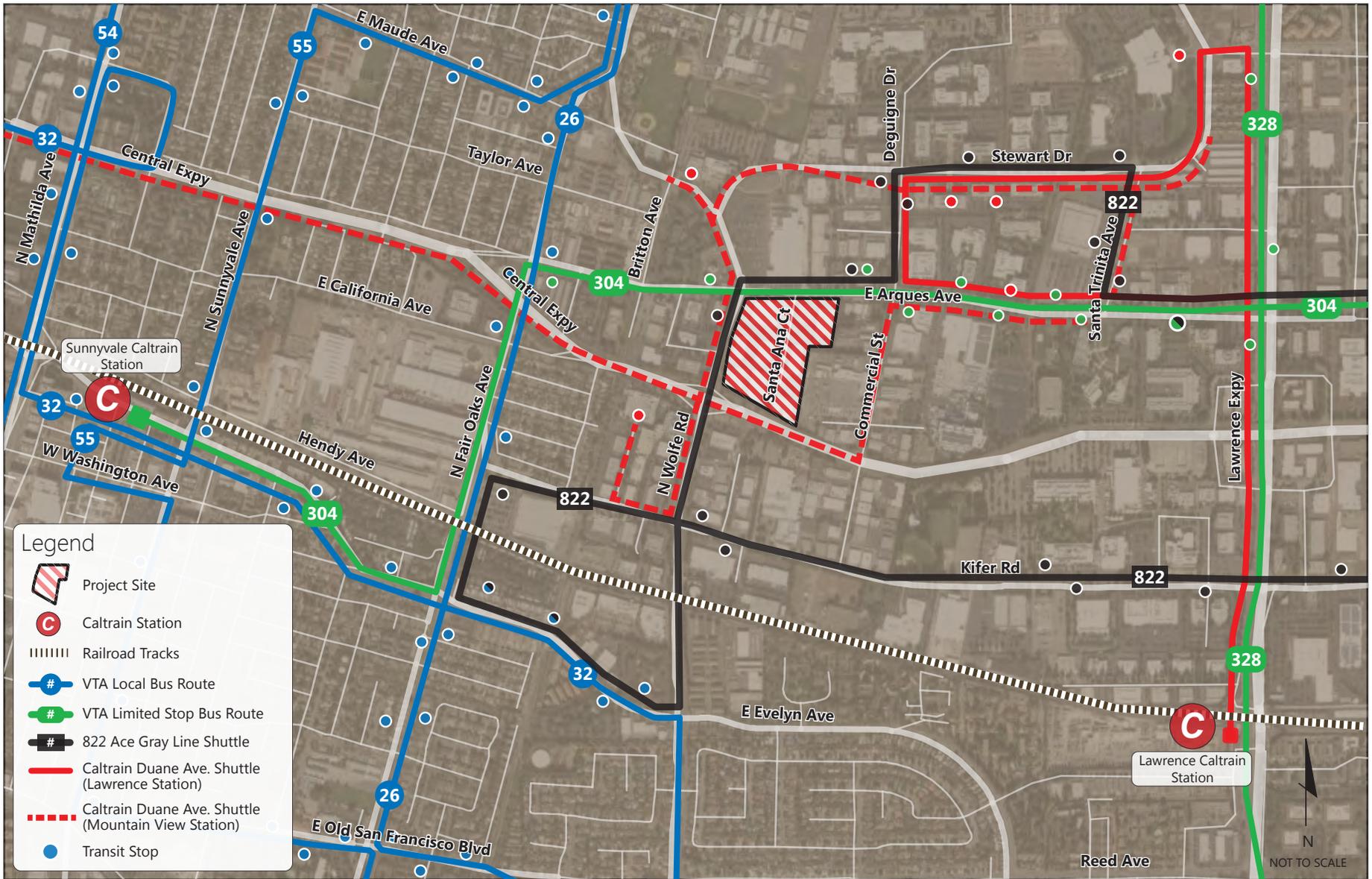


Figure 2.
Existing Transit Routes and Facilities

TABLE 1: EXISTING TRANSIT SERVICE SUMMARY

Route	From	To	Weekdays			Saturdays	
			Average Peak Load Factor ¹	Operating Hours	Peak Headway ² (minutes)	Operating Hours	Headway ² (minutes)
Bus Service (VTA)							
26	Eastridge Transit Center	Lockheed Transit Center	0.27	5:23 a – 11:49 p	30	6:28 a – 10:53 p	30
32	San Antonio Shopping Center	Santa Clara Transit Center	N/A	6:00 a – 8:00 p	30	9:00 a – 5:47 p	60
55	De Anza College	Great America	0.16	5:37 a – 11:08 p	15	7:53 a – 9:05 p	30 - 60
304	South San Jose	Sunnyvale Transit Center	N/A	5:56 a – 8:42 a 3:34 p – 6:56 p	4 NB Runs – AM 4 SB Runs – PM	No Service	
328	Almaden Expwy and Camden	Lockheed Transit Center	0.09	6:00 a – 7:02 a 5:06 p – 6:09 p	1 NB Run – AM 1 SB Run – PM	No Service	
Commuter Rail Service							
Caltrain	San Francisco	San Jose – Diridon	N/A	4:30 a – 1:30 a	35 (local) / 30 (express)	7:00 a – 1:30 a	60
Shuttle Service							
Duane Avenue Shuttle	Mountain View Caltrain Station	Duane Area Office Buildings	N/A	7:50 a – 10:06 a 4:27 p – 7:05 p	3 Runs – AM 4 Runs – PM	No Service	
Duane Avenue Shuttle	Lawrence Caltrain Station	Duane Area Office Buildings	N/A	7:15 a – 8:42 a 3:13 p – 5:54 p	2 Runs – AM 3 Runs – PM	No Service	
ACE 822	Great America Station	South Sunnyvale	N/A	6:16 a – 9:52 a 3:13 p – 6:39 p	4 SB Runs – AM 4 NB Runs – PM	No Service	

Notes:

1. Average peak load factor is the ratio of the average peak number of on-board passengers aboard during the peak period to supply of seats.

2. Headways are defined as the time interval between two transit vehicles traveling in the same direction over the same route.

AM = morning commuter period

PM = evening commute period

Source: VTA, August 2011, Caltrain February 2013



VTA LOCAL BUS ROUTES

Bus Route 26 operates between the Eastridge Mall and Lockheed Martin/Moffett Park transit centers. Route 26 follows major arterials and travels through Sunnyvale, Cupertino, San Jose, and Campbell including E. Wolfe Road near the site. The closest Route 26 stop is located at E. Arques Avenue/N. Fair Oaks Avenue, approximately 1/3 mile west of the project site. Other bus stops for Route 26 in the project vicinity are located at Bryan Avenue/N. Fair Oaks Avenue, Kifer Road/N. Fair Oaks Avenue, E. California Avenue/N. Fair Oaks Avenue, Maude Avenue/N. Fair Oaks Avenue.



Bus Route 55 operates on De Anza Boulevard and Sunnyvale-Saratoga Road between De Anza College and Great America. This route provides direct access to the Sunnyvale Caltrain station. With a short transfer along VTA Light Rail at Great America, the route provides access to the Altamont Commuter Express (ACE) train service, as well as Amtrak Capitol Corridor service. The closest Route 55 stop is located at Maude Avenue/N. Fair Oaks Avenue, approximately half of a mile northwest of the project site.

VTA EXPRESS AND LIMITED STOP BUS ROUTES

Bus Route 304 is a limited stop bus route that runs from South San Jose to the Sunnyvale Transit Center via E. Arques Avenue. Route 304 has four northbound runs during the AM peak period and four southbound runs during the PM peak period on weekdays. Route 304 makes several stops along E. Arques Avenue including bus stops at E. Arques Avenue/Lawrence Expressway, E. Arques Avenue/Santa Trinita Avenue, E. Arques Avenue/Commercial Street, and E. Arques Avenue/N. Wolfe Road.

Bus Route 328 is a limited stop bus route that operates on Lawrence Expressway near the project site; it connects south San Jose (near Almaden Expressway) to the Lockheed Martin Transit Center. One Route 328 run occurs during each weekday peak period (northbound in the morning, southbound in the afternoon). The closest stop is located at E. Arques Avenue/Lawrence Expressway, along the eastern border of the project site. Route 328 bus stops are also located at Duane Avenue/Lawrence Expressway and Kifer Road/Lawrence Expressway.



VTA COMMUNITY BUS ROUTES

Bus Route 32 is a community bus route which runs from the San Antonio Shopping Center to the Santa Clara Transit Center. The closest Route 32 bus stop is located at E. Wolfe Road/Evelyn Avenue, approximately half of a mile south of the project site.

CALTRAIN SHUTTLE BUS ROUTES

Caltrain Duane Avenue Shuttle is a shuttle service that takes passengers between Mountain View and Lawrence Caltrain Stations and the Duane Avenue area office buildings during commute hours. There are two Duane Avenue shuttle routes: one serves the Mountain View Caltrain Station and the second serves the Lawrence Caltrain Station. The Lawrence Caltrain Station route has two runs in the morning commute hours and three runs in the evening. The Mountain View Station route has three runs in the morning commute hours and four runs in the evening commute hours.

Shuttle route information is summarized below:

- The most recent shuttle planning has been conducted in response to calls for projects and the availability of shuttle funding.
- VTA is the principal entity managing allocation and distribution of shuttle funding.
- Historically, employers and/or cities provided 25% of BART/Caltrain shuttle costs; however employer funding can reach as high as 90%.

ACE SHUTTLE BUS ROUTES

ACE 822 Gray Line South Sunnyvale Shuttle is a shuttle service provided by ACE which connects the ACE Great America Station to South Sunnyvale. The route has four southbound runs during the AM peak period and four northbound runs during the PM peak period. Route 822 makes several stops along E. Arques Avenue, along the northern border of the project area including at E. Arques Avenue/Lawrence Expressway, E. Arques Avenue/Commercial Street, and E. Arques Avenue/N. Wolfe Road.



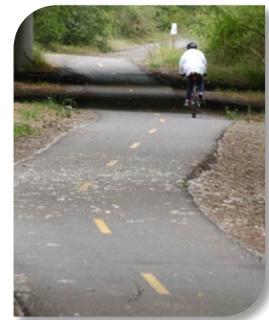
PEDESTRIAN FACILITIES

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals. Adjacent to and within the project site, sidewalks are provided on both sides of N. Wolfe Road, along the northern side of E. Arques Avenue, along portions of the western side of Commercial Street, and along portions of the northern side of E. California Avenue. No sidewalks are provided along Santa Ana Court or on Central Expressway. Crosswalks and pedestrian signals are provided at all signalized intersections within the project area.

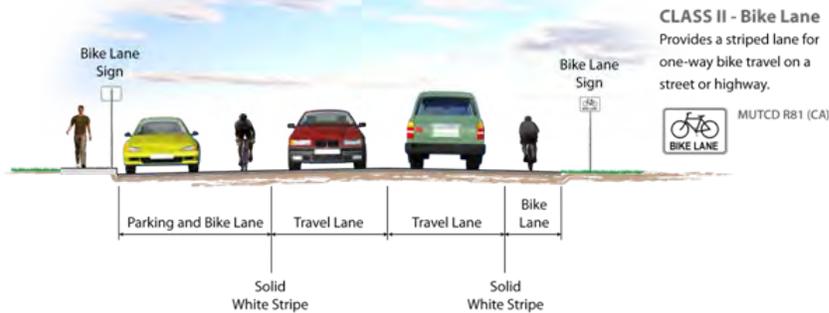
BICYCLE FACILITIES

Bikeway planning and design in California typically relies on guidelines and design standards established by the California Department of Transportation (Caltrans) in the *Highway Design Manual* (Chapter 1000: Bikeway Planning and Design). There are three types of bikeway facilities, as described below and shown on the accompanying figures.

- *Class I Bikeway (Bike Path)* provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. In general, bike paths serve corridors not served by streets and highways or where sufficient right-of-way exists to allow such facilities to be constructed away from the influence of parallel streets and numerous vehicle conflicts.



- Class II Bikeways (Bike Lanes) are lanes for bicyclists generally adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bicycle lanes are generally five (5) feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.



- Class III Bikeway (Bike Route) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles, but have no separated bike right-of-way or lane striping. Bike routes serve either to: a) provide continuity to other bicycle facilities, or b) designate preferred routes through high demand corridors.



The VTA *Bicycle Technical Guidelines* (December 2007) recommends that Caltrans standards regarding bicycle facility dimensions be used as a minimum and provides supplemental information and guidance on when and how to better accommodate the many types of bicyclists.

VTA adopted the *Santa Clara Countywide Bicycle Plan* (CBP). The CBP guides the development of major bicycle facilities in the county by identifying Cross County Bicycle Corridors and other bicycle projects of countywide or intercity significance. Two of the Cross County Bicycle Corridors travel through the study area, along E. Wolfe Road and E. Arques Avenue.



The City of Sunnyvale adopted the *City of Sunnyvale 2006 Bicycle Plan*, which updates the goals, policies, and action statements that guide bicycling improvements throughout the City. The 2006 Bicycle Plan map identifies existing and future planned bicycle facilities throughout the City. The *2006 Bicycle Plan* included a planned bike lane for Evelyn Avenue, which has since been installed. No other facilities are planned near the site.

Figure 3 shows the location of the existing bicycle facilities within the project study area. Near the project site, bicycle lanes (Class II) are provided on E. Arques Avenue, E. Wolfe Road, Commercial Street, and Kifer Road. West of the project site, a Class II bike lane is provided along N. Fair Oaks Avenue from Kifer Road to E. Maude Avenue. North of the project site, a Class II bike lane is provided on Stewart Drive. East of the project site, a Class II bike lane is provided on Lakeside Drive and on Oakmead Parkway between Lawrence Expressway and Central Expressway.

