



HEXAGON TRANSPORTATION CONSULTANTS, INC.



Transportation Demand Management (TDM) Plan



Development at 200 Airport Boulevard in South San Francisco, CA

Prepared for:

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1. Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The purpose of TDM is to (1) reduce the amount of traffic generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for alternative transportation usage; (3) reduce the parking demand generated by new development and allow for a reduction in parking supply; and (4) establish an ongoing monitoring and enforcement program to guarantee the desired trip and parking reductions are achieved.

The main purpose of the proposed TDM plan for the 200 Airport Boulevard (project) is to evaluate the parking reduction requirements outlined in Section 20.330.007 (Downtown Parking) of the South San Francisco Municipal Code. The code states that for the Downtown Parking District, the Planning Commission shall review any request for a reduction in the number of required parking spaces and make a determination whether there is sufficient parking within the District to accommodate the proposed use. The City of South San Francisco may reduce the required number of parking spaces for a project, so long as (1) the reduction in parking will not adversely affect surrounding projects; (2) the reduction in parking will not rely upon or reduce the public parking supply; and (3) the project provides a detailed TDM plan and demonstrates that the TDM program can be maintained indefinitely.

In accordance with City goals to reduce the number of vehicle trips during peak commute hours, this TDM Plan seeks to reduce the parking demand through a combination of appropriate measures to promote alternative forms of transportation. The project proposes to provide less on-site parking than what is typically required for downtown residential developments.

Project Description

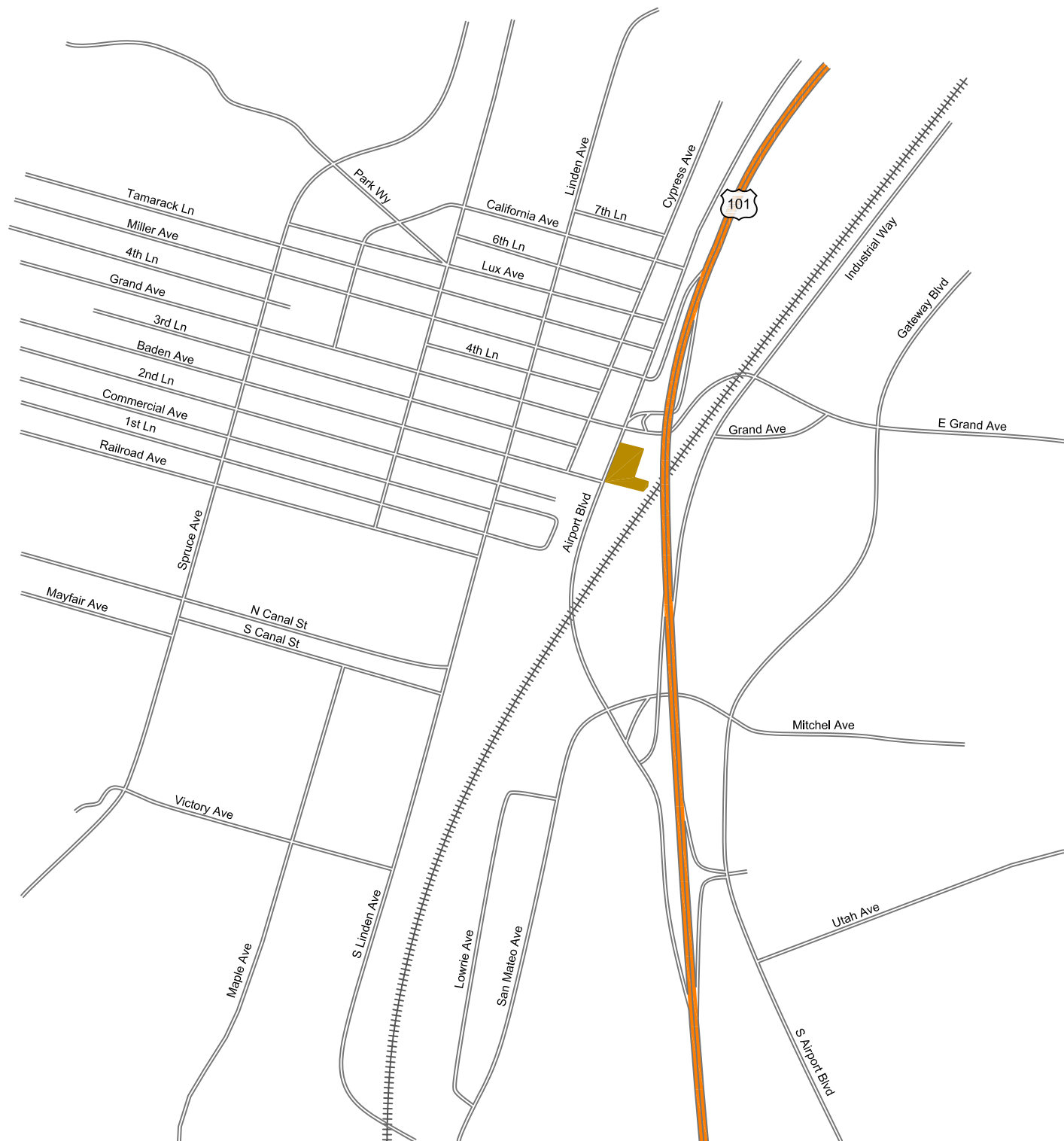
The proposed project consists of one building with 94 dwelling units and 3,630 square feet (s.f.) of commercial uses. The project site is bordered by Airport Boulevard to the west, the proposed Caltrain Plaza to the north, Caltrain tracks to the east, and the recently approved residential development (150 Airport Boulevard) to the south. Access to the project would be provided via a signalized driveway on Airport Boulevard. This driveway would be located on the east side of the signalized intersection of Airport Boulevard and Baden Avenue and would provide shared access to the proposed project and the recently approved residential development at 150 Airport Boulevard. The project site location and the surrounding study area are shown on Figure 1.

Downtown Location and Proximity to Transit

Also called location efficiency, the location of a project within or adjacent to a central business district promotes pedestrian and bicycle travel in a high-density area of complementary land uses. The project is located in the Downtown Transit Core (DTC) and will provide development and density within a ½-mile radius of the Caltrain Station, which will promote ridership and reduce emissions. The project would provide high-quality residential opportunities for younger employees and older retirees who desire a convenient downtown location, and increase the population close to Grand Avenue to support nearby business, consistent with the Downtown Station Area Specific Plan's (DSASP) goals. Also, the project site is located within one quarter mile of four SamTrans bus routes. Chapter 2 describes the existing transit services in the study area.

Report Organization

The remainder of this report is divided into two chapters. Chapter 2 describes the transportation facilities and services in the vicinity of the project site. Chapter 3 describes parking proposed by the project. Chapter 4 presents the TDM plan that will be implemented for the proposed project, including the program for implementing and monitoring the TDM plan.



LEGEND

 = Project Site Location

Figure 1
Site Location

2. Existing Transportation Facilities

Transportation facilities and services that support sustainable modes of transportation include SamTrans bus routes, BART, Caltrain, shuttles, pedestrian facilities, and bicycle facilities. This chapter describes the existing facilities and services near the 200 Airport Boulevard project site. Information on the nearby roadway network is also included in order to provide a more comprehensive description of the nearby transportation network.

Roadway Network

Regional access to the project study area is provided by US 101.

US 101 is a north-south major freeway through eastern San Mateo County between San Francisco and San Jose. It is the primary north/south route connection to I-280 and I-80 north of South San Francisco. US-101 is typically congested in both directions during both peak periods as people commute to and from San Francisco and the Silicon Valley. Access to the freeway from the project site is provided via interchanges at Miller Avenue, Airport Boulevard, and E. Grand Avenue.

The following roadways provide local access to the site:

Airport Boulevard is a major north/south arterial route through South San Francisco parallel to US-101. North of Grand Avenue, Airport Boulevard has two travel lanes in each direction. Airport Boulevard provides access to the site via Baden Avenue.

Baden Avenue is primarily a two-lane local roadway that extends from Chestnut Avenue in the west to Airport Boulevard in the east. It widens to a four-lane roadway between Linden Avenue and Airport Boulevard. Direct access to the project would be provided by extending Baden Avenue to the east of Airport Boulevard. The east leg would provide access to the proposed project on the north side and the approved 150 Airport Boulevard residential development on the south side.

Grand Avenue is a two- to six-lane roadway that extends from Mission Road to its termination point at Point San Bruno Park. West of US-101, Grand Avenue has one travel lane in each direction with on-street angled parking on both sides of the street.

Miller Avenue is a two-lane local roadway that extends west from Airport Boulevard and terminates at Chestnut Avenue. There are traffic signals at its intersections with Airport Boulevard, Spruce Avenue, and Walnut Avenue, but the other intersections are controlled by stop signs.

Linden Avenue is a two-lane local roadway that extends north from San Mateo Avenue at the city limits and terminates at Airport Boulevard. There are traffic signals at most major intersections with the

remainder of its intersections controlled by stop signs. Linden Avenue intersects Baden Avenue, Grand Avenue, and Miller Avenue in the vicinity of the project site.

Gateway Boulevard is a four-lane north/south roadway that extends between Oyster Point in the north and Mitchell Avenue in the south, east of US 101. It is the northern extension of South Airport Boulevard.

Existing Bicycle Facilities

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths (Class I facilities) are pathways, separate from roadways, which are designated for use by bicycles. Often, these pathways also allow pedestrian access. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing rights-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs.

According to the Bicycle Master Plan, the City has 48.3 miles of existing bikeways, though most of them are not signed (see Figure 2). Transit stations, schools, parks and retail centers are all accessible by these bikeways. The following bicycle facilities exist in the project study area.

Class I Bikeway (Multi-Use Path)

- **Grand Avenue** has a bike path that extends from Industrial Way, crosses over East Grand Avenue and ends at Harbor Way. This path connects to Class II bike lanes that begin on Gateway Boulevard south of Grand Avenue.

Class II Bikeway (Bike Lane)

- **Airport Boulevard** has Class II bike lanes in both directions that begin north of Miller Avenue and connect to the Class III bicycle routes on Miller Avenue and Linden Avenue.
- **Gateway Boulevard** has Class II bike lanes in both directions that begin south of Grand Avenue and extend to South Airport Boulevard.
- **Grand Avenue** has Class II bike lanes in both directions that begin west of Spruce Avenue and connect to the Class III bicycle route on Spruce Avenue.
- **Railroad Avenue** has a Class II bike lane in the eastbound direction that extends east from Spruce Avenue to Maple Avenue, after which it becomes a Class III bicycle route with sharrows. This lane connects to the Class III bicycle route on Spruce Avenue.

Class III Bikeway (Bike Route)

- **San Mateo Avenue** is a Class III bicycle route without sharrow markings. The route extends from Airport Boulevard past South Linden Avenue, connecting to the Class III bicycle route on Linden Avenue.
- **Linden Avenue** is a Class III bicycle route without sharrow markings. The route extends south from Airport Boulevard to San Mateo Avenue.
- **Spruce Avenue** is a Class III bicycle route with sharrow markings between Grand Avenue and Victory Way. The route connects to Class II bicycle lanes on Grand Avenue.

The City of South San Francisco adopted its Citywide bicycle master plan in 2010, the goal of which is to expand the bicycle network to make it easier and safer for people to bicycle through the City. In the project vicinity, bike lanes are planned in both directions on Airport Boulevard between Miller Avenue and San Mateo Avenue. Bike lanes are also planned in both directions on Grand Avenue between Spruce Avenue and Airport Boulevard. As part of the proposed Caltrain Station reconstruction, a new ped/bike rail crossing tunnel is proposed at the Grand Avenue/Airport Boulevard intersection that would directly connect to the South San Francisco Caltrain station. The new ped/bike tunnel would also provide a good bicycle connection between the downtown and the employment zone to the east of US 101.

Existing Pedestrian Facilities

Sidewalks are provided on most streets in the immediate vicinity of the project. Sidewalks exist in both directions on Airport Boulevard and on the south side of Grand Avenue along the project frontage. In the immediate vicinity of the project, crosswalks exist at the signalized intersections of Airport Boulevard/Baden Avenue and Airport Boulevard/Grand Avenue for pedestrians to get to downtown destinations. Pedestrian access improvements are proposed in the area covered under the Specific Plan and citywide under the South San Francisco Pedestrian Master Plan. The plan calls for area-wide improvements, such as establishing a Downtown pedestrian-priority zone, making pedestrian-friendly alley improvements to Downtown lanes and completing the street grid to reduce block lengths immediately surrounding the Caltrain station.

Existing Transit Service

Transit services in the study area include local buses, express buses, shuttles, BART, Caltrain and ferry service. A majority of the public transit trips through the area are commuters who use the Caltrain station or connect from BART to Downtown and East of US-101 employers via employer shuttles. Employer sponsored shuttles connect to employment destinations east of the Caltrain station and other commuter connections in the area. These shuttles are available to individual riders not associated with sponsor employers for a monthly fee. See Figure 3 for the existing transit services.

SamTrans Bus Routes

Route 292 stops at the Airport Boulevard/Grand Avenue, and Airport Boulevard/Baden Avenue intersections. The route provides connection between Downtown San Francisco to the north and Brisbane, South San Francisco, Burlingame and San Mateo to the south. This line provides service in both directions between 4:00 AM and 2:00 AM, with 20- to 30-minute headways during peak weekday

Route 130 stops at the Linden Avenue/Grand Avenue intersection and provides service between Downtown South San Francisco, South San Francisco BART station, and Daly City. This line provides service in both directions between 5:00 AM and 10:00 PM with 15-minute headways during peak weekday hours.

Route 397 stops at the Airport Boulevard/Baden Avenue intersection and connects to Downtown San Francisco to the north and Palo Alto Transit Center to the south. This line provides service between 1:00 AM and 6:00 AM with 60-minute headways. This route does not operate mid-day or evenings.

South SF Shuttle (SCS) is operated by SamTrans and provides free service between the South San Francisco BART Station and the downtown Monday through Friday between 7:00 AM and 7:00 PM. The shuttle stops at the Linden Avenue/Grand Avenue intersection, which is within walking distance (less than 1,000 feet) of the project.

BART Service

Bay Area Rapid Transit (BART) operates regional rail service in the Bay Area, connecting between San Francisco International Airport and the Millbrae Intermodal Station to the south, San Francisco to the north, and cities in the East Bay. The BART stations closest to the South San Francisco Caltrain station area are the San Bruno Station located near Huntington Avenue east of El Camino Real, and the South San Francisco Station, located on Mission Road and McLellan Drive. Both stations are located within 3 miles of the South San Francisco Caltrain station, and SamTrans provides service from the BART stations to Downtown South San Francisco. BART trains operate on 15-minute headways during peak hours and 20-minute headways during off-peak hours

Caltrain

Caltrain provides commuter rail service between San Francisco and Gilroy. The project is located less than 0.25 miles (walking distance) southwest of the South San Francisco Caltrain station, which is located at 590 Dubuque Avenue, on the east side of US-101, immediately north of East Grand Avenue. The South San Francisco Caltrain Station serves local and limited trains. Weekday peak commute headways are between 20 and 60 minutes, with more frequent service for AM northbound and PM southbound trips.

Currently, the only access to the South San Francisco Caltrain station is from the west side of the train tracks, via the Grand Avenue overpass. This overpass requires a long and circuitous detour for people walking and bicycling, who have to cross Grand Avenue and descend either a tall metal staircase or walk/bike along Dubuque Avenue. Recently, the San Mateo County Transportation Authority (SMCTA) Board awarded a \$59 million grant for station reconstruction to improve safety and connectivity to nearby businesses. The station reconstruction will include widening the center platform and building a pedestrian tunnel to connect the station directly to the east end of downtown's Grand Avenue. Passengers will be able to get to the station's center platform via ramps connecting to a tunnel underneath the tracks. The tunnel will connect to a pedestrian plaza at Grand Avenue and Airport Boulevard on the west side of the tracks and a transit plaza at the end of three-lane Grand Avenue on the east side of the tracks. Busses and shuttles will pick up and drop off Caltrain passengers from the new east-side plaza instead of the parking lot on the west side of the station. This will save time for passengers commuting to the City's biotech job center on the east side of the tracks. The pedestrian plaza on Grand Avenue would be located just north of the project.

East of US-101 Area Shuttles

- The Oyster Point Caltrain Shuttle connects the South San Francisco Caltrain station to Oyster Point, Forbes Boulevard and Eccles Avenue. This line provides service during peak commute hours, between 6:30 AM and 10:00 AM, and between 3:00 PM and 6:00 PM with 30-minute headways.
- The Utah-Grand Caltrain Shuttle connects South San Francisco Caltrain station to East Grand Avenue and Utah Avenue. This line provides service during peak commute hours, between 5:30 AM and 9:30 AM, and between 4:00 PM and 6:15 PM with 30-minute headways.

Bus Stops

The nearest bus stop for Route 130 and SCS is located near the Grand Avenue/Linden Avenue intersection, which is less than 1,000 feet walking distance from the project site. The nearest bus stops for Routes 292 and Route 397 going northbound are located on Airport Boulevard, just south of Baden

Avenue, and the nearest stops for Route 292 and Route 397 going south bound are located on Airport Boulevard, just south of Grand Avenue. The shuttle services can be accessed at the Caltrain station, which is within walking distance of the project. Continuous sidewalks are present for pedestrians walking between the proposed project and the nearest bus stops.

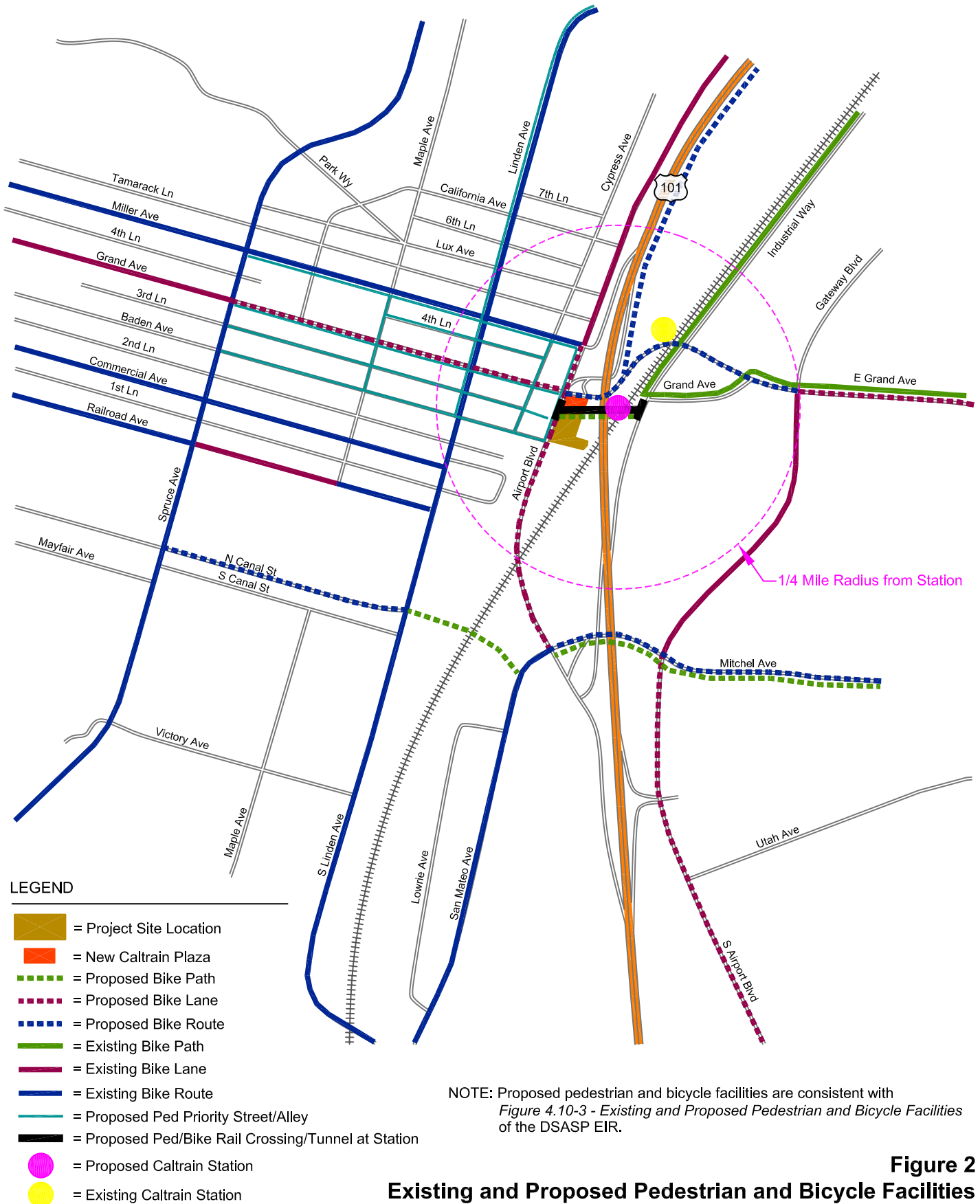




Figure 3
Existing Transit Facilities

3. Parking

The South San Francisco Municipal Code includes parking requirements for mixed-use projects comprising residential and retail components within the Downtown Plan Area (Section 20.330.007). The parking requirements are as follows: 1 space per 400 s.f. of floor area of general retail space, 1 space per studio unit, 1.0 space per one-bedroom unit, 1.5 spaces per two-bedroom unit, and 1.5 spaces per three-bedroom unit.

The project as proposed would construct one mixed-use building comprising a total of 94 units (26 studio units, 39 one-bedroom units, and 44 two-bedroom units) and 3,630 square feet of retail. Based on the municipal code, this would equate to 109 residential spaces and 9 retail spaces for a total minimum parking requirement of 118 spaces. The vehicular parking requirements are summarized in Table 1.

Table 1
Vehicular Parking Spaces Requirement

Vehicular Parking Space Requirement				
Land Use	Parking Rate ¹		Project Size	Required Spaces
Minimum Parking Requirement				
Resident Parking	per studio unit	1	26 units	26
	per 1 bedroom unit	1	39 units	39
	per 2 bedroom unit	1.5	29 units	44
Subtotal				109
Retail Parking	per 400 sf	1	3,630	9
Total				118
Notes:				
SF = square feet				
¹ Vehicular parking requirements per Table 20.330.007 of the South San Francisco Municipal Code				

According to the project site plan, the project would provide a total of 110 parking spaces: 12 spaces serving retail and guests, 50 car stackers, and 48 standard spaces. The proposed parking supply would meet the City's retail parking requirements. There would be a deficit of 11 spaces for the residential parking. However, given the project's location and its proximity to the Caltrain station, it is expected that many residents would use public transportation and would not need a car. Also, the project will

implement a comprehensive TDM plan, as described in Chapter 4 to reduce the project's parking demand.

Since parking for the retail uses would be short-term, the retail parking areas should be signed for two-hour parking during business hours. This would help with parking turnover and keep spaces available for customers and visitors.

4. TDM Plan

The TDM measures to be implemented for the 200 Airport Boulevard project include design features, programs, and services that promote sustainable modes of transportation and reduce the roadway and parking demand that would be generated by the project. The City's Municipal Code requires all nonresidential development expected to generate 100 or more average daily trips to implement a transportation demand management (TDM) program to reduce the number of vehicle trips by increasing access to and use of alternative modes of transportation, including transit, bicycling, and walking. The City's Municipal Code does not apply to residential projects, however, as shown in Table 2, the number of daily trips for retail uses exceeds 100 trips, even with the 20% trip reduction from the Downtown Station Area Specific Plan. The proposed project also does not meet the minimum required number of parking spaces, therefore a TDM Plan is required in order to reduce parking demand.

Table 2
Project Trip Generation

Land Use	Size	Unit	Daily		AM Peak Hour						PM Peak Hour					
			Rate	Trips	Rate	In%	Out%	In	Out	Total	Rate	In%	Out%	In	Out	Total
Proposed Uses																
Multi-Family Housing ¹	94	DU	7.4	693	0.53	20%	80%	10	40	50	0.74	65%	35%	45	24	69
Retail ²	3.6	s.f.	42.7	155	0.96	62%	38%	2	2	4	3.71	48%	52%	6	7	13
20% Trip Reduction ³				-170				(2)	(8)	(11)				(10)	(6)	(17)
Primary Project Trips				679				9	33	43				41	25	65
Notes:																
1. Based on Fitted Curved Equation for Apartments (220) land use, Institute of Transportation Engineers, Trip Generation, 9th Edition.																
2. Based on average trip generation rates for Shopping Center (820) lane use, Institute of Transportation Engineers, Trip Generation, 9th Edition.																
3 Accounts for the diversity of land uses, density, and distance to transit (consistent w ith DSASPE EIR).																

Table 3 presents a summary of the measures proposed in this plan, along with an indication of who will have primary responsibility for implementing each measure. All measures will be implemented upon occupancy of the building. The project site is well suited to have a successful TDM Plan based on its location near retail and commercial development and its access to bicycle, pedestrian, and transit facilities.

Post occupancy, it is recommended that the development submit an annual TDM Performance Report to the City that identifies the TDM measures implemented during the year and the trip reduction, compared to standard ITE rates (see Table 4).

Proposed TDM Measures

The TDM measures to be implemented by the project include planning and design measures related to the attributes of the site location, the site design, and on-site amenities. Such measures encourage walking, biking, and use of transit. For the proposed project, these include the following:

Site Location and Design-Related Measures

The site is located within walking distance of the current South San Francisco Caltrain station. With the South San Francisco Caltrain station reconstruction, the proposed Caltrain plaza will be located to the immediate north of the project along Grand Avenue and the Caltrain station will be less than a 5-minute walk from the project. Passengers would be able to access the station via a tunnel that will be provided at the east end of downtown's Grand Avenue. The site will be designed with upgraded sidewalks along Airport Boulevard to encourage walking to the Caltrain station. The site is also located within one quarter mile of several SamTrans bus routes.

Ample bicycle support facilities will be provided including secure and protected bicycle parking for residents, bike racks for visitors, and on-site bicycle repair stations to encourage bicycling as a travel mode.

TDM Administration and Promotion

Designated Transportation Coordinator

Experience with other TDM programs indicates that having a Transportation Coordinator who focuses on transportation issues and who is responsible for implementing and managing the TDM program is key to its success. The building owner or management will need to appoint an individual as the Transportation Coordinator or TDM contact person, and that person's name and contact information will be provided to the City.

The Transportation Coordinator's responsibilities will include organizing and implementing the promotional programs, updating information on the online information board/kiosk, providing trip planning assistance and/or ride-matching assistance to residents who are considering an alternative mode for their commute, managing the annual driveway counts and resident survey. The Transportation Coordinator should maintain up-to-date transit schedules and route maps for SamTrans, BART, Caltrain and community shuttles and be knowledgeable enough to answer resident's TDM program-related questions.

Promotional Programs

The Transportation Coordinator will need to undertake additional marketing activities to encourage residents and employees to try an alternative mode to get to work. Although some marketing, such as the online kiosk and distributing information welcome packets to new residents and new employees, will be conducted immediately, additional promotional activities might include email blasts of flyers, brochures or other materials on commute alternatives, ridesharing incentive programs, and transit benefits. SamTrans.com and 511.org can help provide some useful marketing materials.

Table 3
Proposed TDM Measures for 200 Airport Boulevard

TDM Measure	Responsibility
Bicycle and Pedestrian Facilities	
Bike Parking	Building Developer
Bike Repair Hub	Trans. Coordinator
Resources (maps & info)	Trans. Coordinator
Carpool and Vanpool Programs	
511 Ridematching Assistance	Available to public
Carpool/Vanpool Incentives for New Users	Available to public
Transit Elements	
\$100 welcome transit pass (One-time)	Trans. Coordinator
Online Info Center	
"Online Kiosk": website with info	Building Developer ¹
Info Packets for New Residents and New Employees	Trans. Coordinator
Program Marketing, Administration, Monitoring and Reporting	
Transportation Coordinator	Building Developer ¹
Event promotions & publications	Trans. Coordinator
Annual count of vehicles entering and leaving site	Independent party
Annual Employee /Resident Survey	Trans. Coordinator
Annual reporting to City	Trans. Coordinator
Internet and Telecommuting	
Cable wiring to facilitate telecommuting	Building Developer
On-Site Amenities	
Residential fitness center	Building Developer
Cyber Lounge	Building Developer
Parking	
Unbundled Parking	Trans. Coordinator
Notes: 1. The building developer will have initial responsibility for creating an online kiosk and appointing the Transportation Coordinator. After the building is occupied, the Transportation Coordinator will have ongoing responsibility for the online kiosk and various program elements.	

Bicycle and Pedestrian Facilities

The site has quality access to bicycle and pedestrian routes through South San Francisco, connecting the project to major destinations and transit stations. The presence of other commercial uses in the vicinity of the project site will encourage residents to walk to the retail, entertainment, and commercial areas nearby. It is expected that bicycle and pedestrian facilities that are included as part of the project will be successful in reducing vehicle trips.

Bicycle Parking

Providing secure bicycle parking encourages bicycle commuting and reduces daily vehicle trips. The zoning ordinance requires short-term bicycle parking spaces at a rate of 10 percent of the number of required automobile parking spaces and a minimum of one long term bicycle parking space per every four units for multi-unit residential and group residential projects. The proposed project requires 12 short-term bicycle parking spaces and 24 long-term bicycle parking spaces.

The site plan shows that short-term bicycle parking will be provided along the project frontage on Airport Boulevard; a bicycle rack that can accommodate 6 bicycles will be provided near Baden Avenue and another bicycle rack that can accommodate 6 bicycles will be located near Grand Avenue. The site plan also shows a bicycle storage room that can accommodate 34 bicycles on the first-floor parking level. Adequate short-term and long-term bicycle parking will be provided on site.



Bicycle Resources

As part of the information available in the “online kiosk” discussed in more detail below, resources useful to cyclists will be included. For example, the local bikeways map will be posted for easy reference. A map showing the safe routes to the public elementary school, middle school, and high school that will serve the site’s families will also be posted.

The following resources are available to bicycle commuters through 511.org. These resources will be noted on the project’s online information center to make tenants aware of them.

- Free Bike Buddy matching
- Bicycle maps
- Bicycle safety tips
- Information about taking bikes on public transit
- Location and use of bike parking at transit stations
- Information on Bike to Work Day
- Tips on selecting a bike and commute gear
- Links to bicycle organizations

Bicycle Repair Stands In Bike Storage Rooms

The project is proposing to provide bike repair stands/kiosks in the bicycle storage room. The bicycle repair stands will include all the tools necessary to perform basic bike repairs and maintenance, from changing a flat tire to adjusting brakes and derailleurs. Repair stations also provide a singular point where bicyclists can share information on routes, commuting, and maintenance practices to help generate a stronger community that is more engaged in bicycling as a mode of transportation.

Pedestrian Accessibility

The site is currently well-served by pedestrian amenities including sidewalks and crosswalks with pedestrian signal heads. Improvements to these existing facilities, including the widening of sidewalks and the addition of planting strips along the project frontage to provide buffer between vehicles and

pedestrians by the development will encourage individuals to walk to nearby destinations. The proposed public pedestrian and bicycle ways are shown on Figure 2.

Carpool and Vanpool Programs

511 Ride Matching Assistance

The 511 RideMatch service provides an interactive, on-demand system that helps commuters find carpools, vanpools or bicycle partners. This program will be promoted through the online information center and in New Resident Information packets.

This free car and vanpool ride-matching service helps commuters find others with similar routes and travel patterns with whom they may share a ride. Registered users are provided with a list of other commuters near their employment or residential Zip code along with the closest cross street, email, phone number, and hours they are available to commute to and from work. Participants are then able to select and contact others with whom they wish to commute.

The service also provides a list of existing carpools and vanpools in their residential area that may have vacancies. Ride-matching assistance is also available through a number of peer-to-peer matching programs, such as Zimride and TwoGo, which utilize social networks to match commuters.



Carpool/Vanpool Incentives for New Users

The 511 Regional Rideshare Program offers a number of incentive programs to encourage people to try carpooling and vanpooling. Most of these programs are designed to reward someone for forming or trying a carpool or vanpool and provide an award or subsidy after the first three or six months of use.

- Vanpool Formation Incentive:** The 511 Regional Rideshare Program provides up to \$500 in gas cards to new vanpools that meet certain eligibility requirements and complete three to six consecutive months of operation. The gas cards are awarded on a first-come, first-served basis, until funds are exhausted.
- Vanpool Seat Subsidy:** The 511 Regional Rideshare Program also offers a vanpool seat subsidy in the form of gas cards. The seat subsidy will provide \$100 per month, with a limit of three months per van during the program year, to help cover the fare of a lost participant. The gas cards will be offered to eligible vans on a first-come, first-served basis until the funds are exhausted.
- Discounted Tolls:** The 511 Regional Rideshare Program offers free toll passage on seven of the Bay Area's bridges for vanpools with 11-15 people who register with 511. Additionally, the program also offers toll discounts to carpools with three or more people (two people in a two-seat vehicle) on eight of the Bay Area's bridges during peak commute hours. The discounts vary per bridge, but typically are half of the standard toll price. For example, the San Mateo – Hayward Bridge has a standard toll of \$5, but for a carpool of three people (two people in a two-seat vehicle) the toll is only \$2.50 Monday through Friday between 5-10 AM and 3-7 PM.



Ridematching with Scoop

Scoop is a carpool matching application that helps commuters to connect with carpoolers who share a similar commute in trip planning. Scoop's algorithm matches commuters based on route, predicted traffic, and past feedback. AM and PM trips can be scheduled separately. Morning trips should be scheduled by 9 p.m. the night before and afternoon and evening trips should be scheduled by 3.30 PM the day of the trip. Trips can be scheduled up to a week in advance. Scoop lets commuters know their carpool details well in advance so there's zero stress. Scoop is providing guaranteed rides back home in the evening for the commuters who commuted using the scoop app in the morning and are not able to find a ridematch in the evening.

Transit Elements

Subsidized Transit Passes

The developer will provide \$100 one-time welcome transit pass to all new residents for the first one year following building occupancy. This will encourage residents to explore transit options in the project vicinity and motivate residents to use transit for commuting to work. The Transportation Coordinator will be responsible for administering the program. Each resident will be given a clipper card that can be used on various transit systems like BART, Caltrans and SamTrans. Clipper is the all-in-one transit card for the Bay Area and can be used on all Bay Area transit systems, including Muni. The Clipper card can also be used as an access key to Bikeshare by linking the card to Ford GoBike account.

Alternatively, discount transit passes could be offered through the SamTrans Way2Go program, which allows residential complexes to purchase annual unlimited-ride passes for all eligible employees or residents.



Marketing Program for Alternative Travel Modes

“Online Kiosk”: An Online Information Center

Most TDM plans have traditionally included a requirement for a kiosk or bulletin board to be created for posting information related to alternative travel modes. Experience often shows, however, that few residents or employees look at these kiosks after an initial period of interest. This TDM Plan proposes to establish an “online kiosk” with similar information that a resident could access from their home, their workplace, or anywhere else.

A key element of this TDM plan is to set up an attractive, up-to-date “online kiosk” with all of the site-specific information about the transportation resources available to residents. The website will include information about all the measures, services, and facilities discussed in this plan, including:

- A summary of SamTrans buses, BART and Caltrain services and links to further information about their routes and schedules.
- A summary of the “welcome” trial transit passes offered to all residents.
- A local bikeways map, information about the bike lockers/secure bike storage areas on site and those nearby, and information about the Bikeshare program.

- Information about ridematching services (e.g., 511.org, Zimride, Scoop and TwoGo) and the incentive programs available to carpools and vanpools.
- Information related to a carshare program, including benefits and nearby locations.
- A link to the many other resources available in the Bay Area, such as Dadnab, the 511 Carpool Calculator, the 511 Transit Trip Planner, real-time traffic conditions, etc.

The building developer will have responsibility for contracting with someone to initially create the website so that it is up and running as soon as residents move in. More specific information can be added later to reflect any programs specific to certain groups of residents. The Transportation Coordinator will be responsible for adding new information to the website (or providing it to the website designer) and including the web address for the online kiosk so that the “online kiosk” remains current and informative.

Information Packet for Residents

In addition to the online information center, the Transportation Coordinator will provide “hard copy” information packets to all residents when they first move into the building. Because all information will be available online, this packet need not be a comprehensive stack of paper about all services available, which residents tend to disregard anyway. Instead, the New Resident Packet will provide a quick easy-to-read announcement of the most important features of the TDM program for residents to know about immediately.

In addition, the packets will include a message to residents that their building manager and/or owner values alternative modes of transportation and takes their commitment to supporting alternative transportation options seriously.

Building Features to Facilitate Telecommuting

In an effort to decrease the number of trips residents have to make to and from work each week, the developer proposes to install cable wiring throughout the residential development to provide residents access to high speed internet service, allowing them to work from home. This TDM measure is meant to encourage telecommuting, whereby residents of the development who typically report to a central office location, will be able to work at home one or more days per week.

On-site Amenities

On-site amenities can be beneficial in reducing vehicle trips by offering activities and common retail needs on site. The project will provide a fitness center and Wi-Fi lounge on site that will be open to all residents. Having a free fitness center on site will encourage residents to use the available facilities rather than travel to a fitness center elsewhere. Fitness centers can often encourage alternative modes of transportation by educating users of the additional benefits that can be obtained by using active modes of transportation for other trips.

The project site is also surrounded by retail uses. This will provide more opportunities to meet the necessities of residents without having to travel far from the project site, and possibly without using a car.

Unbundled Residential Parking

Residential parking should be unbundled from each living unit upon project completion. According to *Section 20.280.006 Supplemental Regulations – downtown* of the South San Francisco Municipal Code, for apartment developments, 50 percent of the required parking may be unbundled. Unbundled

parking means separating the cost of parking from residential leases and allowing residents to choose whether or not to lease a parking space. With this approach those tenants without a vehicle would not be required to pay for parking that they do not want or need. This is the most equitable approach and would free up parking for those tenants that require a space and are willing to pay for it. Unbundling residential parking costs from the cost of housing can reduce tenant vehicle ownership and parking demand and can be implemented on a month-to-month lease basis. With a lease, residents receive a monthly bill showing how much they are spending on a parking space and have the option to give up the space if they no longer need it.

Estimated Trip Reductions

The project is located in the Downtown Specific Area Plan. The project location by itself provides location efficiency in promoting transit, bicycling, and walking and reducing SOV trips and parking demand generated by the project. The project is 1/4 mile to the South San Francisco Caltrain Station and within 3 miles of the South San Francisco BART Station and the San Bruno BART Station. There are several SamTrans bus services with stops that are located within a quarter mile. Caltrain, BART, and SamTrans provide frequent and reliable transit services to a high percentage of regional destinations. The project is located within the downtown district, and it is a short walk or bicycle ride from the retail, office, and residential land uses in downtown and the surrounding area. The project location effectively renders it part of a large-scale mixed-use development in a pedestrian-friendly environment with a significant share of internal trips.

Based on the trip surveys for urban infill, mixed-use, and transit-oriented developments published in the Caltrans' Trip-Generation Rates for Urban Infill Land Uses in California (June 2009), the observed trip rates for mid-rise apartments in Berkeley, Santa Monica, and Pasadena were 27 – 28 percent lower than the ITE trip rates and for retail stores Berkeley, San Diego, and San Francisco were 26 – 35 percent lower than the ITE trip rates. As a conservative approach, Hexagon estimates that approximately 20 percent of the project's residential vehicle trips and 28 percent of the project's retail vehicle trips would be reduced by using alternative modes of transportation.

Based on the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures (2010)*, it is estimated that unbundling parking from residential leases/purchases would reduce the site's trip generation by 3 to 13 percent. As a conservative approach, Hexagon estimates that approximately 3 percent of the project's residential vehicle trips would be reduced with unbundled parking.

Based on the project location and the proposed TDM measures, it is estimated that the project could achieve a 23 percent trip reduction for the residential portion and a 28 percent trip reduction for the retail portion of the project (see Table 4). The entire project could achieve a 24 percent trip reduction during weekday peak hours.

Table 4
Estimated Trip Reductions

Land Use	TDM Measure	Trip Reduction %	Daily Trips	AM Pk-Hr Trips	PM Pk-Hr Trips
Residential Trips			693	50	69
	Project Location	20%	-139	-10	-14
	Unbundled Parking	3%	-21	-2	-2
	Residential Trips after Reductions		533	38	53
Retail Trips			155	4	13
	Project Location	28%	-43	-1	-4
	Retail Trips after Reductions		112	3	9
Total Project Trips after Reductions			645	41	62
	Percent Trip Reduction Achieved		24%	24%	24%

Program Monitoring and Reporting

Applicants shall submit a final TDM Plan to the City and shall be responsible for ensuring that the trip reduction measures are successfully implemented and remain in substantial compliance with the Downtown Specific Area Plan. The trip reduction measures included in this TDM Plan will be incorporated into the project.

It is anticipated that, after the project is constructed, an individual from the owner or property management team within the project will be designated as the Transportation Coordinator and assume responsibility for the ongoing TDM measures. When any ownership, management, or contact information changes, the City will be notified of the name, phone number, and email address of the designated Transportation Coordinator.

Monitoring will help ensure that the implemented TDM measures are effective in reducing peak trips by 24% from ITE rates. In order to monitor progress towards this goal, vehicle counts will be conducted in order to compare the actual peak hour vehicle trips to the number of peak hour trips estimated based on the Institute of Transportation Engineers' rates for these land uses (see Table 2).

Consistent with common traffic engineering data collection principles, trip generation will be monitored by means of driveway counts at the project's garage access points. The counts will be conducted one day per year on a typical weekday (Tuesday, Wednesday, or Thursday) during the fall when schools are in session. The project trips during the AM and PM peak hours of commute traffic will be extracted from the daily driveway count. In addition, an annual survey will be administered to all residents. The survey will provide information on what modes residents are using to travel to work, and what TDM programs they have found most useful.

The site TDM coordinator will work with an independent consultant to obtain traffic count data and to document the results in a TDM monitoring report. The annual monitoring report will be submitted to the City by the TDM coordinator. The data will be reviewed by the City to assess whether the goal of a 24% trip reduction is being met. This will be assessed by comparing the driveway counts to the trip targets set forth in Table 4 of this TDM plan report. If the City determines that the trip reduction goal is not being achieved or the on-site parking garage reaches full capacity, additional TDM measures would

need to be implemented. The annual TDM monitoring report will describe any planned modifications to the TDM plan intended to ensure compliance with the trip reduction targets established for this project.

Conclusions

The TDM measures to be implemented by the project complement the attributes of the site location, the site design, and on-site amenities. Such measures encourage walking, biking, and use of transit. The project would be able to meet the parking demand generated by the tenants/residents.