Appendix J2

Transportation Demand Management Plan

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Transportation Demand Management Plan

123 Independence Drive Residential Development in Menlo Park

Prepared for:

City of Menlo Park on behalf of The Sobrato Organization

October 19, 2021

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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 promote more efficient utilization of existing transportation facilities, and to ensure that new developments are designed to maximize the potential for sustainable transportation usage. This Plan has been prepared for the proposed residential development at 123 Independence Drive in Menlo Park, California. In order to propose effective and appropriate TDM measures, this Plan has been developed based on the project's size, location, and land use. This plan has been developed to satisfy Section 16.45.090 of the City of Menlo Park Municipal Code, which requires a TDM plan to be prepared with the goal of achieving at least a 20 percent reduction below standard generation rates for uses on the project site. In addition, the City/County Association of Governments (C/CAG) adopted updated TDM policies (September 1, 2021) that require TDM plans for projects of this size.

Project Description

The project is located at 123 Independence Drive in the R-MU-B (Residential Mixed Use-Bonus) zoning district in Menlo Park, California (see Figure 1). The project will demolish the five existing office and industrial buildings (a total of approximately 103,900 square-feet) that currently occupy the site and will construct a 5-story apartment building with 316 rental apartments and 116 for-sale townhomes. Vehicular access to the project site will be provided via four driveways: one driveway to the apartment parking garage from Constitution Drive, two driveways to the townhomes from Independence Drive, and one driveway to the townhomes from Chrysler Drive (see Figure 2).

A parking structure with a single level below-grade and a single level at-grade with total a total of 336 parking spaces is proposed for the apartments. A ground-level parking garage will be provided for each of the townhome units. Long-term and short-term bicycle parking will be provided throughout the site. A total of 522 bike parking spaces (including 474 long-term parking spaces and 48 short-term parking spaces) will be provided for the proposed apartments, and 192 bike parking spaces (174 long-term spaces and 18 short-term spaces) will be provided for the townhomes.

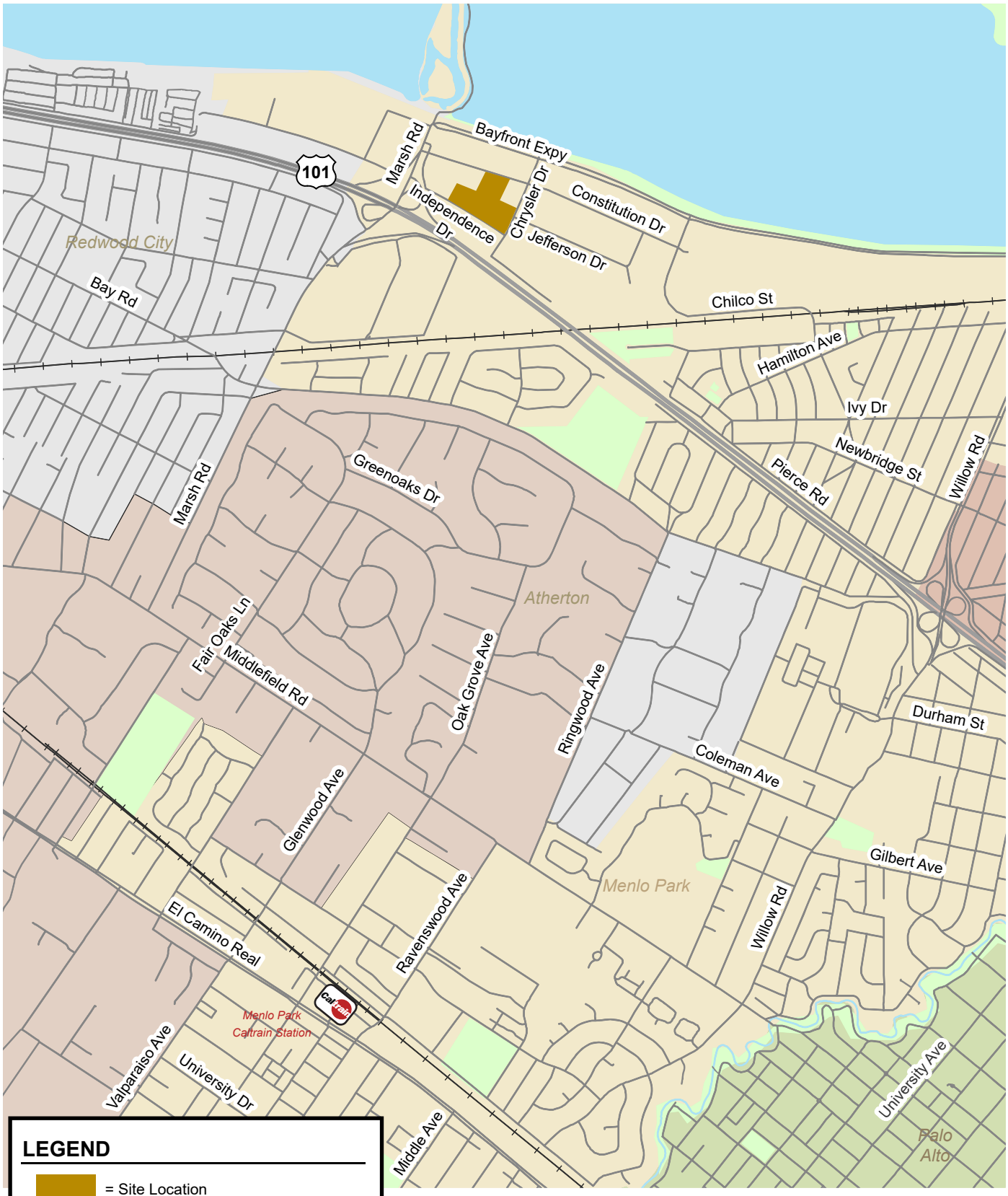


Figure 1
Site Location

NORTH
Not to Scale

Figure 2
Site Plan

NORTH
Not to Scale

Menlo Park TDM Requirement for R-MU Residential Mixed-Use District

The City of Menlo Park requires that all new projects involving a change of use of 10,000 or more square feet of gross floor area in the Residential Mixed-use (R-MU) zoning district prepare TDM plans that will reduce vehicle trips by 20 percent from standard trip generation rates (Menlo Park Municipal Code Section 16.45.090). This plan has been prepared with the goal of achieving at least a 20 percent reduction in daily trips.

The trip generation rates published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition (*2017) for Multifamily Mid-Rise Housing (Land Use 221) were used for this study. Multifamily Mid-Rise Housing includes housing developments between 3 to 10 floors. Before TDM reductions, the proposed project is estimated to generate a total of 2,350 daily trips with 156 trips during the AM peak hour and 190 trips during the PM peak hour.

As shown in Table 1, in order to meet the City's 20 percent reduction requirement, at least 470 daily trips will need to be eliminated through implementation of the various TDM measures. Stated conversely, the project will be required to generate no more than 1,880 daily trips.

Table 1
Trip Generation Estimates for the Residential Development at 123 Independence Drive

		Daily		AM Peak Hour				PM Peak Hour			
		Trip		Trip	Trips			Trip	Trips		
Land Use	Size	Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Land Uses											
Multifamily High-Rise Housing[1]	432 d.u.	5.44	2,350	0.36	41	115	156	0.44	116	74	190
Total Project Trips			**2,350**		**41**	**115**	**156**		**116**	**74**	**190**
Required TDM Reduction (20%)			*(470)*		*(8)*	*(23)*	*(31)*		*(23)*	*(15)*	*(38)*
Total Project Trips *(with TDM Trip Reduction)*			**1,880**		**33**	**92**	**125**		**93**	**59**	**152**
Existing Use											
Office[2]	103.9 ksf	9.74	1,012	1.16	104	17	121	1.15	19	100	119
Net New Project Trips			**868**		**(71)**	**75**	**4**		**74**	**(41)**	**33**

Source: Institute of Transportation Engineers' Trip Generation Manual, 10th Edition, 2017.

Notes:

[1] Land Use 221: Multifamily High-Rise Housing (average trip rates , expressed in trips per dwelling unit (d.u.)

[2]. Land Use Code 710: General Office Building (average rates, expressed in trips per 1,000 s.f. gross floor area)

2. Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, high-occupancy vehicle (HOV) lanes, bicycle facilities, and pedestrian facilities. This chapter describes existing facilities and services near the project site that will support the TDM measures contained in this plan. The existing transit service in the project vicinity is described below and shown on Figure 3. Information on nearby roadways is also included in order to provide a more comprehensive description of the nearby transportation network.

Roadway Network

Regional access to the project site is provided via US 101 and State Route 84.

US 101 extends to the northwest through San Francisco and to the southeast through San Jose. Within Menlo Park, this freeway has three mixed-flow travel lanes, one high-occupancy vehicle (HOV) lane, and one auxiliary lane in each direction. Access to and from the project study area is provided via a full-access interchange at Marsh Road.

Bayfront Expressway (SR 84) is a six-lane expressway that extends along the northern edge of Menlo Park. SR 84 extends eastward across the Dumbarton Bridge into Alameda County and westward through San Mateo County. Bayfront Expressway provides access to the project site via Chrysler Drive.

Local access to the site is provided via Marsh Road, Chrysler Drive, Constitution Drive, and Independence Drive. These roadways are described below and shown in Figure 1 in the previous chapter.

Marsh Road extends from SR 84/Bayshore Expressway in the north to Middlefield Road in the south. In the project area, Marsh Road is a four-lane thoroughfare between Scott Drive and Bayfront Expressway. The posted speed limit in the project area is 35 mph. Sidewalks are present on both sides of Marsh Road between Bayfront Expressway and Scott Drive. Marsh Road becomes a mixed-use collector between Scott Drive and Bay Road. A Class III bike route is designated between Bay Road and Scott Drive. On-street parking is permitted on the west side of Marsh Road between Fair Oaks Avenue and Rolison Road. Access to the project site is provided via Independence Drive and Constitution Drive.

Independence Drive is a two-lane local roadway that includes a sharp turn near its intersection with Marsh Road. The speed limit on Independence Drive is 25 mph. A multipurpose trail is present on the west side of Independence Drive. There is a Class III bike route on Independence Drive. Independence Drive provides direct access to the project site.

Constitution Drive is a two-lane local roadway with a speed limit of 35 mph. It begins at Marsh Road and terminates at Chilco Street. Constitution Drive has sidewalks except on the east side between Chrysler Drive and Chilco Street and the west side between Marsh Road and Chrysler Drive. There are existing Class II bike lanes on Constitution Drive between Marsh Road and Chilco Street. Constitution Drive provides direct access to the project site.

Chrysler Drive is a two-lane local roadway that is perpendicular to Constitution Drive and Jefferson Drive. It extends from Commonwealth Drive to Bayfront Expressway (SR 84). There are sidewalks on both sides of Chrysler Drive except on the north side between Jefferson Drive and Constitution Drive. Class II bike lanes are present for the entire street, with a short segment of bike route just south of Constitution Drive. On-street parking is permitted. The speed limit on Chrysler Drive is 25 mph. Chrysler Drive provides direct access to the project site.

Caltrain Commuter Rail

Caltrain provides commuter rail service between San Francisco and San Jose, with limited service to Gilroy during commute hours. The closest Caltrain station to the project site is the Menlo Park Station, located on Merrill Street between Oak Grove Avenue and Ravenswood Avenue, near El Camino Real.

The Menlo Park Station is located 3.0 miles from the project site. This is an approximately 15-minute bike ride. Also, the Marsh Road Shuttle (described below) currently offers free shuttle service between the project site and the Menlo Park Caltrain Station with timed connections to trains during the commute peak periods.

Marsh Road Shuttle

Primary access to the project site from the Menlo Park Caltrain station is provided by the Marsh Road Shuttle, which is a free shuttle service with timed connections to many of the AM and PM peak period trains in both the northbound and southbound directions. The shuttle operates in a loop through the Marsh Road business park. There are three bus stops surrounding the project site located at 1) the intersection of Chrysler Drive/Independence Drive; 2) the intersection of Chrysler Drive/Constitution Drive; and 3) 110 Constitution Drive. All three stops are within walking distance of the project site. Based on the schedule, the shuttle takes 14 to 16 minutes to travel from the Caltrain station to these stops. In the afternoon, because the project site is one of the first stops in the loop, the shuttle takes about 33 minutes to travel from the stops to the Caltrain station.

The Marsh Road Shuttle is funded jointly by the City of Menlo Park, the Bay Area Air Quality Management District (BAAQMD), the Peninsula Corridor Joint Powers Board (Caltrain), the San Mateo County Transportation Authority, and local employers. The shuttle is free and open to everyone.

SamTrans Bus Service

SamTrans Route 270, the Redwood City Loop, provides service to the Marsh Road/Bayfront Expressway office area. A bus stop is located on Haven Avenue near Marsh Road, approximately 0.5 miles from the project site. Route 270 operates in a loop between the Redwood City Caltrain Station, Redwood Plaza/City Hall, Kaiser Hospital, southbound along Broadway and Bay Road, across US 101 to the Marsh Road business park area, northbound along Bayshore Road, back across US 101 on Maple Street, and then returning to the Redwood City Caltrain Station. Route 270 operates with 60-minute headways on weekdays and Saturdays.

HOV Lanes

High-Occupancy Vehicle (HOV) lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more occupants (carpool, vanpool, and buses), motorcycles, and ILEVs (subcategory of clean-fuel vehicles that have essentially no fuel vapor emissions) during the morning (5:00 to 9:00 AM) and evening (3:00 to 7:00 PM) commute periods. HOV lanes are present on US 101 within the City of Menlo Park.

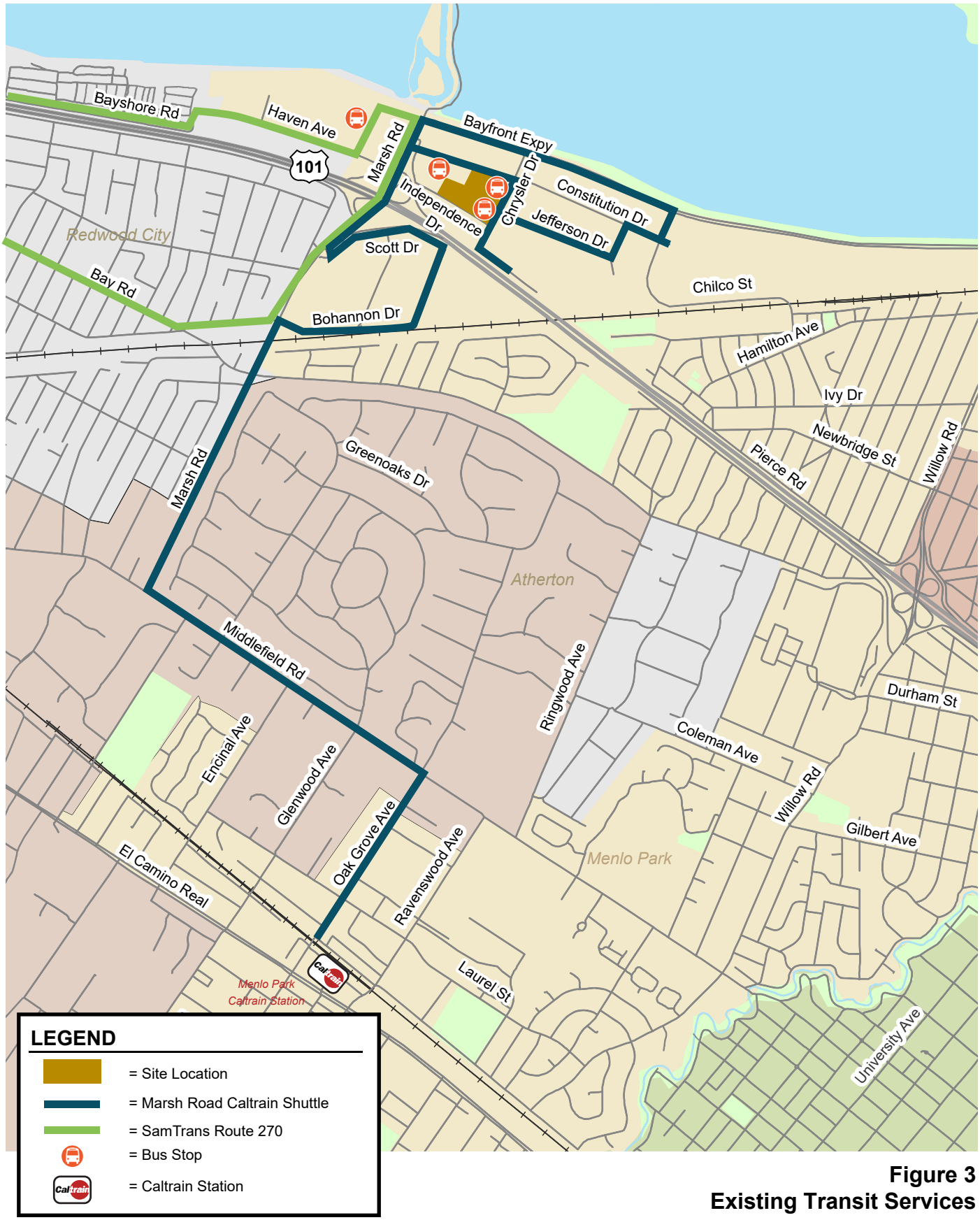


Figure 3
Existing Transit Services

Bicycle Facilities

Bicycle facilities are an important component of the City of Menlo Park's transportation network. The City's bikeways are classified as Class I, Class II, or Class III facilities, as follows:

- Class I Bicycle Path – bike paths within exclusive right-of-way, sometimes shared with pedestrians
- Class II Bicycle Lane – bike lanes for bicycle use only that are striped within the paved area of roadways
- Class III Bicycle Route – bike routes are shared with motor vehicles on the street. Class III bikeways may also be defined by a wide curb lane and/or use of a shared use arrow stencil marking on the pavement, known as a "sharrow"

Bike Paths:

- Bayfront Expressway between Marsh Road and Marshlands Road across the Dumbarton Bridge
- Chilco Street between the Menlo Park Fire District Station No. 77 and Constitution Drive
- The Bay Trail along University Avenue north of Purdue Avenue
- Recreational trails at Bedwell Bayfront Park, Facebook along Hacker Way, and on the Bay Trail near Ravenswood Preserve

Bike Lanes:

- Haven Avenue between Sleepy Hollow Ln and Haven Court
- Chrysler Drive between Independence Drive and Bayfront Expressway
- Constitution Drive between Independence Drive and Chilco Street
- Chilco Street between Constitution Drive and Bayfront Expressway
- Willow Road between Bayfront Expressway and Bay Road south of US 101
- University Avenue between Donohoe Street and Bayfront Expressway
- Bay Road on the south side of US 101
- Jefferson Drive between Chrysler Drive and Constitution Drive

Bike Routes:

- Independence Drive between Constitution Drive and Chrysler Drive
- Market Place between Hamilton Avenue and Newbridge Street
- Ivy Drive between Market Place and Almanor Avenue
- Hamilton Avenue between Modoc Avenue and Chilco Street
- Newbridge Street in the westbound direction between Bay Road and Menalto Avenue
- Hacker Way

The following improvements to the City's bicycle facilities have been proposed in its Comprehensive Bicycle Development Plan:

- Class III bike routes are planned for Ringwood Avenue between Bay Road and Van Buren Road, Van Buren Road between Iris Lane and Bay Road, and Ivy Drive between Market Place and Willow Road.
- A new bicycle and pedestrian bridge over the Atherton Channel is planned to extend the bike lanes and sidewalks on Haven Avenue to Marsh Road, as part of the Haven Avenue

Streetscape Project. The Haven Avenue Streetscape Project connects Menlo Park, San Mateo County, and Redwood City residents and employees.

Bike lanes on Marsh Road and the Independence Drive Connector Path are identified as long-term projects. The Marsh Road bike lanes are also identified as proposed improvements in the San Mateo County Comprehensive Bicycle and Pedestrian Plan. It is not known when these two proposed improvements will be constructed.

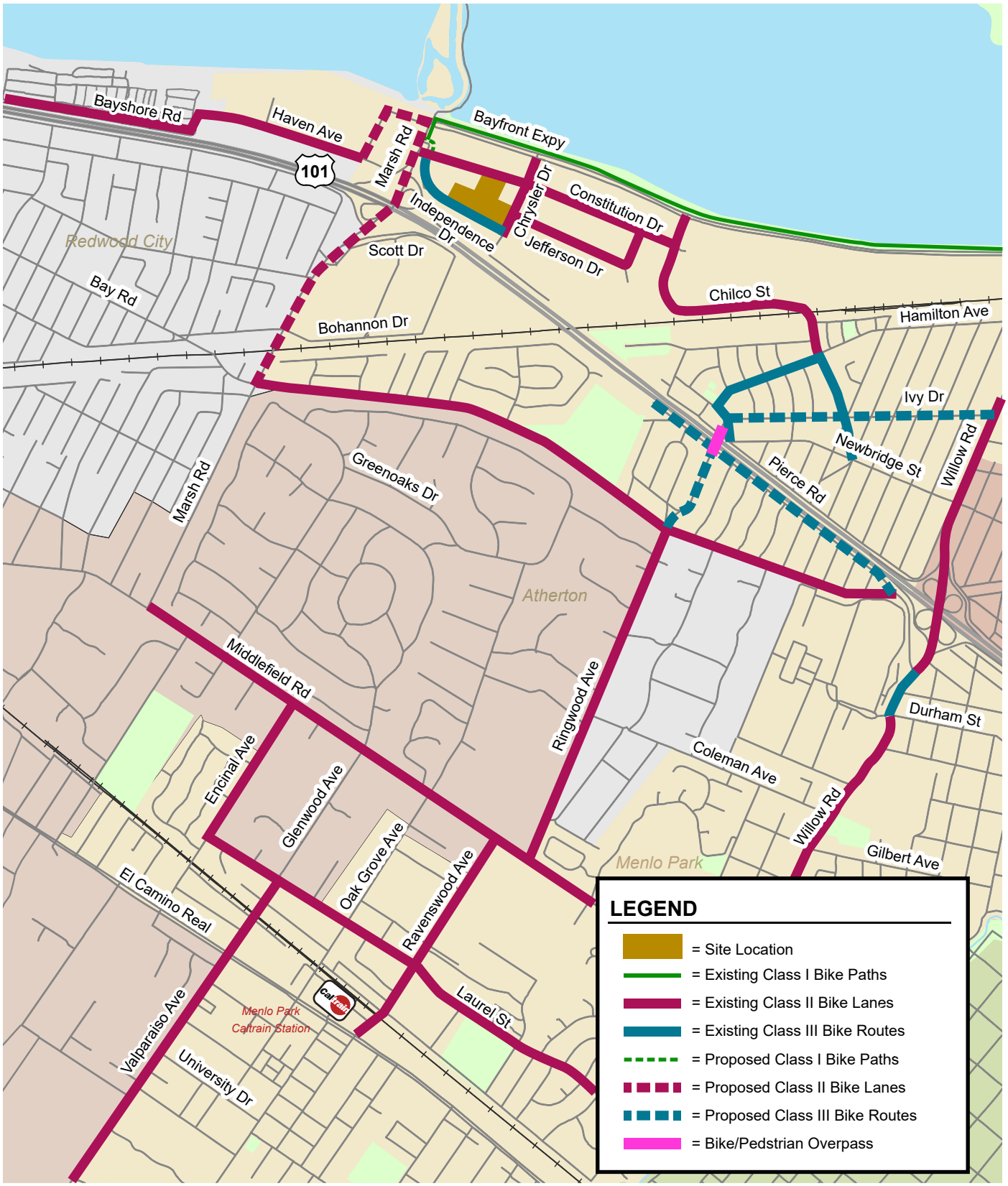


Figure 4
Existing and Proposed Bicycle Facilities

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. Roadways providing pedestrian access to the project site include Independence Drive, Constitution Drive, and Chrysler Drive.

Crosswalks with pedestrian signal heads and push buttons are found on one or more approaches at all the signalized study intersections. The intersection at Chrysler Drive and Constitution Drive has crosswalks on east and south approaches. The intersections at Chrysler Drive/Bayfront Expressway and at Marsh Road/Bayfront Expressway both have crosswalks on all approaches.

As the adjacent land parcels redevelop, new sidewalks are planned for the street frontages, which will improve pedestrian facilities in the vicinity of the project. The project will help complete the missing sidewalks on Independence Drive and Constitution Drive along the project frontage.

As described in the preceding section on bicycle facilities, the Haven Avenue Streetscape Project also includes pedestrian crossing improvements to the Marsh Road-Haven Avenue-Bayfront Expressway intersection, which will improve the overall pedestrian network in the area east of US 101. The improvements include widened sidewalks, replacement of curb ramps to comply with current ADA standards, realigning the existing crosswalk on the northwest (Haven Avenue) leg of the intersection, and improving the existing median to provide a crossing refuge island.

3. Proposed TDM Measures

This chapter describes Transportation Demand Management (TDM) measures that will be implemented by the proposed project.

This plan has been developed to meet the 20 percent trip reduction requirement set forth in Sec.16.45.090 of the Menlo Park municipal code [1] for the residential mixed-use zoning district.

The TDM measures to be implemented by the project include services, incentives, actions, and planning and design features related to the attributes of the site design and site amenities. Such design features encourage walking, biking, and use of transit. Some of the recommended TDM measures are programs that will be created and implemented by the building manager. Table 2 presents a summary of the TDM measures in this plan. An indication of who will have primary responsibility for implementing each measure is also shown on the table.

[1] City of Menlo Park Municipal Code, Section 16.45.090, "Transportation demand management." Adopted December 6, 2016.

Table 2
Recommended TDM Measures

TDM Measure	Applies to Apartment Residents, Townhome Residients, or Both	Implementation Responsibility
Program Administration		
Designating a Transportation Coordinator	Both	Property Manager
Online Kiosk/TDM Information Board [1]	Both	Transportation Coordinator
Transportation Information Packets	Both	Transportation Coordinator
Trip Planning Assistance	Both	Transportation Coordinator
Program Monitoring and Reporting		
Annual Resident Surveys	Both	Transportation Coordinator
Target Drive-alone Mode Share Monitoring	Both	Transportation Coordinator
Carpool and Vanpool Programs		
511 Ridematching Service	Both	Available to public
Incentives for New Carpools/Vanpools	Both	Available to public
Bicycle Facilities		
Bicycle Parking	Both	Building developer
Bicycle Repair Station	Both	Building developer
Ebike and Cargo Bicycle	Apartment Residents	Building developer
Resources (bikeway maps & other info)	Both	Transportation Coordinator
Pedestrian Facilities		
Pedestrian Scale Lighting	Both	Building developer
New Sidewalks	Both	Building developer
Other On-Site Amenities		
Fitness Room and Club Room	Apartment Residents	Building developer
High-Bandwidth Internet Connection	Apartment Residents	Building developer
Pet Spa	Apartment Residents	Building developer
Pool and Spa	Apartment Residents	Building developer
Transit Elements		
Transit Subsidy	Both [2]	Building developer
Unbundled Parking	Apartment Residents	Building developer

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.
2. Transit subsidies are not practical for ownership units (Townhomes) on an on-going basis. However, a free one-year transit pass will be given to each new owner upon original purchase from the developer.

TDM Administration and Promotion

Transportation Coordinator

A Transportation Coordinator will be assigned to provide information regarding alternative modes of transportation to residents of the project. The Transportation Coordinator will be designated by the building developer, the property manager, or any subsequent building owner.

The Transportation Coordinator's responsibilities will include 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, and managing the annual surveys. The Transportation Coordinator will maintain a supply of up-to-date transit schedules and route maps for SamTrans and Caltrain and be knowledgeable enough to answer residents' TDM program-related questions. The Transportation Coordinator will distribute a carpool/vanpool matching application to all residents as part of the New Resident Information packets. The application will match residents who live at the project site who may be able to carpool or vanpool together.

Online Transportation Kiosk

This TDM plan recommends establishing an "online kiosk" with transportation information that residents could access from their smart phones, their homes, or anywhere else. This online kiosk can be available on the project website.

By allowing someone to have all the information about transportation alternatives and TDM programs available to them in a single online location, people will be more likely to refer to this information from home. The project developer or property manager will have responsibility for setting up and maintaining this online information center. This website will include site-specific information about all the measures, services, and facilities discussed in this plan. In addition, this online information center will include:

- A summary of SamTrans, Caltrain, and nearby shuttle services and links to further information about their routes and schedules.
- Information about ride matching services (511.org and on-site ride matching) and the incentive programs available to carpools and vanpools.
- Information about services such as Uber, Lyft, and other on-demand transportation services.
- A local bikeways map and bicycling resources on 511.org.
- A link to the many other resources available in the Bay Area, such as the 511 Carpool Calculator, the 511 Transit Trip Planner, real-time traffic conditions, etc.

Resident Orientation (Welcome) Packet

New residents will be provided transportation information packets. This packet will include information about transit maps/schedules (Caltrain, SamTrans, and shuttle services), location of bus stops, bike maps, ride matching services, transit planning resources, and bicycle parking on site. Also included in the packet will be information regarding how to contact the Transportation Coordinator, who can provide information regarding alternative modes of transportation to residents.

The resident orientation (welcome) packet will provide a quick, easy-to-read announcement of the most important features of the TDM program for residents to know about immediately and a message that the building values alternative modes of transportation and takes their commitment to supporting alternative transportation options seriously. For example, it will include a flyer announcing some highlights of the TDM program and where to find more information online.

Bicycle and Pedestrian Amenities

Bicycle Parking

Providing secure bicycle parking encourages bicycle commuting. A total of 522 bike parking spaces (including 474 long-term parking space and 48 short-term parking spaces) will be provided for the proposed apartments and 192 bike parking spaces (174 long-term spaces and 18 short-term spaces) will be provide for the proposed townhomes. Electrical outlets will be included in the bike rooms for charging Ebikes.

The Transportation Coordinator will monitor the usage of the bicycle parking facilities and will also tabulate the mode share for bicycles based on survey results.

Bicycle Repair Station

In addition to bicycle parking, the project includes a bike repair station next to the bike storage room, which will 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.

On-Site Ebike and Cargo Bicycle Share Program

The project will provide on-site ebikes and cargo bicycles for the apartment tenants to check-out and use. These ebikes and cargo bicycles should be stored in a secured common space that can be checked out by tenants. Hexagon recommends 5 ebikes and one cargo bike to start. This number may be adjusted up or down as needed.

Bicycle Resources

The following resources are available to bicycle commuters through 511.org. These resources will be noted on the project's online information center, in order to make residents 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, commute gear, and clothing
- Links to bicycle organizations

Pedestrian Design Elements

The project will complete the missing sidewalks on Independence Drive and Constitution Drive along the project frontage. The project will build a public park between Lot B and C, and pedestrian paths will connect the park with the sidewalk along Independence Drive and Constitution Drive. Within the site, pedestrian paths are shown throughout the project site, providing connections between sidewalks on the adjacent streets, the proposed buildings, parking garages, and other amenities on-site.

Passenger Loading for Rideshare Vehicles

The project is planning to provide a passenger loading zone on site near the apartment building to encourage residents and guests to utilize rideshare services/programs (e.g., Uber, Lyft, Scoop, Waze Carpool, etc.) and reduce parking demand.

Onsite Amenities for the Apartment Building

Fitness Room, Club Room, Pool, and Spa

The project will include a pool, a fitness room, and a club room in the apartment building for use by residents for socializing and recreation. The project will also include a pet spa. These amenities will

encourage residents to stay on site for these services, reducing the number of trips that are required to be made.

Electric Vehicle Charging Stations

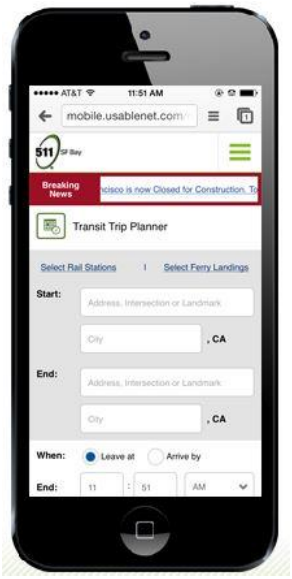
The apartment garage will include a total of 335 parking spaces, of which 51 spaces will be equipped with electric vehicle charging stations. While EV charging station parking spaces will not directly reduce any peak-hour trips, the designated Clean Air Vehicle spaces provide a prominent visual message that the project values a reduction in air pollution.

High-Bandwidth Internet Connection

The apartment residential units will include high-bandwidth internet connections to facilitate telecommunicating. Access to high-bandwidth internet connections will allow residents to work from home and therefore reduce the number of commute trips to and from project site.

Carpool and Vanpool Programs

511 Ride Matching Assistance



511 RideMatch

The 511 RideMatch service provides an interactive, on-demand system that helps commuters find carpools, vanpools or bicycle partners. The Transportation Coordinator, in conjunction with the future building manager contacts, will promote the on-line 511 service to residents. 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 car and vanpools in their residential area that may have vacancies.

Scoop

Scoop offers a fee-based ride matching service through an easy-to-use app. Scoop allows commuters to separate their AM and PM trips, to help accommodate unpredictable work schedules. Scoop also lets users schedule a trip as a driver or passenger, depending on their daily needs. Scoop identifies carpoolers who are heading the same direction and finds the most efficient carpool trip based on fastest route, nearby carpoolers, carpool lanes, and other factors. Payment for each trip is made through the app.

Ride matching assistance is also available through a number of peer-to-peer matching programs, such as Zimride, which utilize social networks to match commuters.

Carpool/Vanpool Incentives

Scoop Discounts for San Mateo County Carpools

C/CAG has developed the “Carpool in San Mateo County!” program, which provides a $2 incentive per person for each trip that begins or ends in San Mateo County. Drivers and riders can earn up to $4 per day when using the Scoop app to carpool. Drivers and riders using Scoop will automatically receive the $2 incentive per person during commute periods (5:30 a.m. – 10:00 a.m. and 3:30 p.m. – 8:00 p.m.), with a maximum of $4 per rider and driver each day.

The Star Store

The Peninsula Traffic Congestion Relief Alliance has established a program called the Star Store. Residents and commuters who travel to, from, or through San Mateo County can earn points by logging their commutes in the STAR platform. Every day that someone commutes by an alternative to driving alone, they earn a point. Users collect points and then redeem them for rewards.

First Five Rides Free on 511

Currently, the 511 Carpool Program is offering new riders on carpool apps Scoop or Waze Carpool five free rides. Users can download the apps, set up an account, enter their schedule and get their first five rides free.

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.

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.

Vanpool Participant Rebates

The Peninsula Traffic Congestion Relief Alliance also offers an incentive to commuters to try vanpooling. The Alliance will pay half of the cost of a new vanpool participant's seat, up to $100 per month, for the first three months in the van. New vanpools that operate for at least six months can receive a one-time rebate of $500, paid to the vanpool driver (rotating drivers may share the bonus).

Transit Subsides

Transit subsidies are an extremely effective means of encouraging residents to use transit rather than driving. There are a number of ways that transit subsidies can be implemented. The transportation coordinator will provide two free annual SamTrans Way2Go Pass and/or Caltrain Go Pass per apartment unit. SamTrans Way2Go Pass will give tenants unlimited rides on all SamTrans regular service seven days a week. Way2Go Pass is deeply discounted below the standard fares, making it an attractive low-cost benefit to residential communities. Transit subsidies are not practical for ownership units (Townhomes) on an on-going basis. However, a free one-year transit pass will be given to each new owner upon original purchase from the developer.

Unbundling of Onsite Residential Parking

To further encourage non-auto transportation methods and to reduce costs for residents, onsite residential parking for the apartment building will be unbundled from each living unit. This will allow residents without cars to rent a unit without having to pay for a parking spot. Parking spaces will be added to leases only for residents who desire parking. Unbundling of parking encourages residents to forego a second car or to have no car at all.

Effectiveness of the TDM Measures

The effectiveness of the TDM plan was evaluated based on the California Air Pollution Control Officers Association (CAPCOA) report "Quantifying Greenhouse Gas Mitigation Measures", which estimates VMT reduction relative to a project's design features and applicable TDM measures.

The Bay Area Air Quality Management District (BAAQMD) has released a TDM Tool that assists with calculating VMT reductions due to TDM measures based on the CAPCOA research. The BAAQMD tool quantifies by how much a TDM plan for a specific project in a specific location is likely to reduce VMT. The TDM Tool provides an estimate of the amount by which a project's location and land use characteristics, its site enhancements, and the measures taken to reduce commute trips will reduce VMT. Based on the TDM Tool, with the implementation of the proposed TDM measures, the project would achieve a reduction of more than 20 percent of the VMT generated by the proposed residential development (see Table 3). For this report, a reduction in trips is considered equivalent to a reduction in VMT.

Table 3
TDM Measures and Estimated VMT Reduction

TDM Measure (CAPCOA ID)	Applied VMT Reduction Rate for Residential Use
Bike Parking (SDT-7)	0.63%
Pedestrian Network Improvement (SDT-1)	1%
Unbundled Parking (PDT-2) [1]	6%
Commute Trip Reduction Marketing (TRT-7)	2%
Increase Density (LUT-1)	5%
Transit Subsidies (TRT-4)	6%
Total	**20.63%**

Notes:
1. Unbundled Parking will be applied to the proposed apartment residential units only.
Source: *California Air Pollution Control Officers Association (CAPCOA) report* , August 2010

C/CAG TDM Requirement

The City/County Association of Governments (C/CAG) for San Mateo County has established trip reduction requirements for new development within the county. C/CAG categorizes new developments as small projects and large projects. Multi-family residential projects larger than 50 units (generating more than 500 average daily trips) are considered to be large projects. The recommended vehicle trip reduction target for large multi-family residential projects that are not transit oriented developments (TOD) is 35 percent. The project would not be qualified as a transit proximate development, which is described as a project between 0.5 and 3 miles of high-quality transit. A high-quality transit area provides fixed route bus services with headways of 15 minutes or less during peak hours.

To accomplish the reduction goal, C/CAG provides a list of potential TDM measures, some of which are required and some of which are optional. Each measure has an associated point value and

reduction percentage. Based on the updated C/CAG TDM policy, the project must first fulfill all required measures prior to selecting a sufficient number of additional recommended measures to achieve the minimum 35 percent trip reduction.

As shown in Table 4, the project will achieve the reduction goal of 35 percent with the TDM measures included in this plan. C/CAG requires the following for large multi-family residential projects:

- Complete a TDM self-certification status form biennially for the first six (6) years after occupancy.

Table 4
Summary of C/CAG Estimated Trip Reduction Percentage

Cateogry	Measure	Provided by Project (Y/N)	Point Value	Estimated Trip Reduction Percentage
Required TDM Measures (Non-Transit Proximate)				
Parking Management for Ridesharing	Orientation, Education, Promotional Programs and/or Materials	Y	1	1.0%
TDM Management and Admin	TDM Coordinator/Contact Person	Y	1	0.5%
	Actively Participate in Commute.org, or Transportation Management Association (TMA) Equivalent	Y	6	5.0%
	Certified participation in Commute.org, or equivalent program such as TMA	Y	2	4.0%
	Commute assistance and ride-matching	Y	4	1.0%
Shuttles, Transit, and Ridesharing	Transit or Ridesharing Passes/Subsidies [1]	Y	6	7.3%
Active Transportation	Secure Bicycle Storage	Y	1	1.0%
Site Design Initiatives	Design Streets to Encourage Bike/Ped Access	Y	1	1.0%
Required TDM Measures Total (Non-Transit Proximate)			**22**	**20.8%**
Addtional TDM Measures (Non-Transit Proximate)				
Parking Mgmt.	Paid Parking at Market Rate [2]	Y	7	18.3%
Additional TDM Measures Total (Non-Transit Proximate)			**7**	**18.3%**
Required & Additional TDM Measures Total			**29**	**39.1%**

Notes:

1. Transit subsidies are not practical for ownership units (condo) on an on-going basis. However, a free one-year transit pass will be given to each new owner upon original purchase from the developer.
2. Paid Parking at Market Rate Measure will be applied to the proposed apartment residential units only.

4. TDM Implementation, Monitoring, and Reporting

This chapter outlines the required implementation, monitoring, and reporting for the 123 Independence Drive Residential Development TDM Plan.

Annual Commute Surveys

The purpose of the TDM Plan is to reduce daily vehicle trips by at least 20 percent, thereby lessening parking issues, traffic congestion, and vehicle emissions associated with the proposed project. Regular monitoring will ensure that the implemented TDM measures are effective and achieve that standard. The program will be evaluated annually to assess the actual level of trip reduction achieved at the site and to identify any adjustments to the program necessary to ensure the TDM measures are successful.

Annual commute surveys will be administered by the transportation coordinator to measure the number of residents commuting by alternative modes and whether they are aware of the services and programs that are available to them. Residents who do not respond to the survey will be assumed to be driving alone. In addition to obtaining quantitative data on the mode split, the survey will provide qualitative data regarding resident perceptions of the alternative transportation programs. The survey results will measure the relative effectiveness of individual program components relative to other components and facilitate the design of possible program enhancements. Along with collecting information on mode split, the survey can gather information on use of the bike storage, use of the online kiosk, and walking trips made to nearby commercial uses. The transportation coordinator will be responsible for administering the survey, compiling the results, and communicating the results to the City.

Annual Driveway Counts

In order to evaluate whether or not the project has met the 20 percent daily vehicle trip reduction requirement, annual driveway counts will be conducted. A count of the number of vehicles entering and exiting the project's driveways on a typical weekday will be conducted annually by an independent third party to determine the number of vehicle trips being generated by the project. The

counts will be conducted at the site's driveway on a weekday that is not disclosed in advance. All vehicles entering and exiting the project driveways will be counted.

The driveway counts will be used to determine the actual daily trip generation of the project. The Transportation Coordinator will provide the results of the driveway counts to the City of Menlo Park, along with a statement as to whether the 20 percent PM peak-hour trip reduction goal was met.

Annual Reporting to City

The TDM ordinance for the residential mixed-use district states that the required trip reduction will be achieved "over the life of the development, as evidenced by annual reporting provided to the satisfaction of the City's Transportation Manager." The Transportation Coordinator will submit to the City of Menlo Park annual documentation to substantiate implementation of the TDM plan elements, the results of the resident survey, and the results of the driveway counts. If the 20 percent peak-hour trip reduction requirement has not been met, then the report will state what additional measures will be implemented in the coming year in order to achieve the City's requirement.