HEXAGON TRANSPORTATION CONSULTANTS, INC.

3265 El Camino Real Residential Development

Transportation Demand Management (TDM) Plan

Prepared for:

The City of Palo Alto on Behalf of Half Dome Capital LLC

March 29, 2024

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1. Introduction

This Transportation Demand Management (TDM) plan has been prepared for the proposed residential development at 3265 El Camino Real in Palo Alto, California. The development will provide less parking than required, so a TDM plan is required per the City of Palo Alto Municipal Code. TDM is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, greenhouse gas emissions, and air pollution problems. The purpose of a TDM plan 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.

Project Description

The project site is located along the El Camino Real corridor at 3265 El Camino Real in Palo Alto, California (see Figure 1). The project will demolish the vacant building and construct 44 affordable housing units in a 5-story building. There would be 24 studio units and 20 one-bedroom units.

In comparison to the Affordable Housing Incentive Program (AHIP) in Section 18.32 of the Zoning Code, the project would be required to provide 0.75 space per unit, or 33 parking spaces. The project will provide 24 stacker parking spaces in a ground level parking structure, which is 9 parking spaces (27 percent) fewer than would be required in comparison to the AHIP. In addition, the City's zoning code, Section 18.52.040 states that multifamily housing developments require one space per studio and one-bedroom units and two spaces per two- or more bedroom units, which would require a total of 44 parking spaces. Per the Zoning Code Section 18.52.030(i), a TDM plan is required for all projects that request a parking reduction. In addition, 100% affordable housing developments may request up to a 100% reduction in parking based on the anticipated demand.

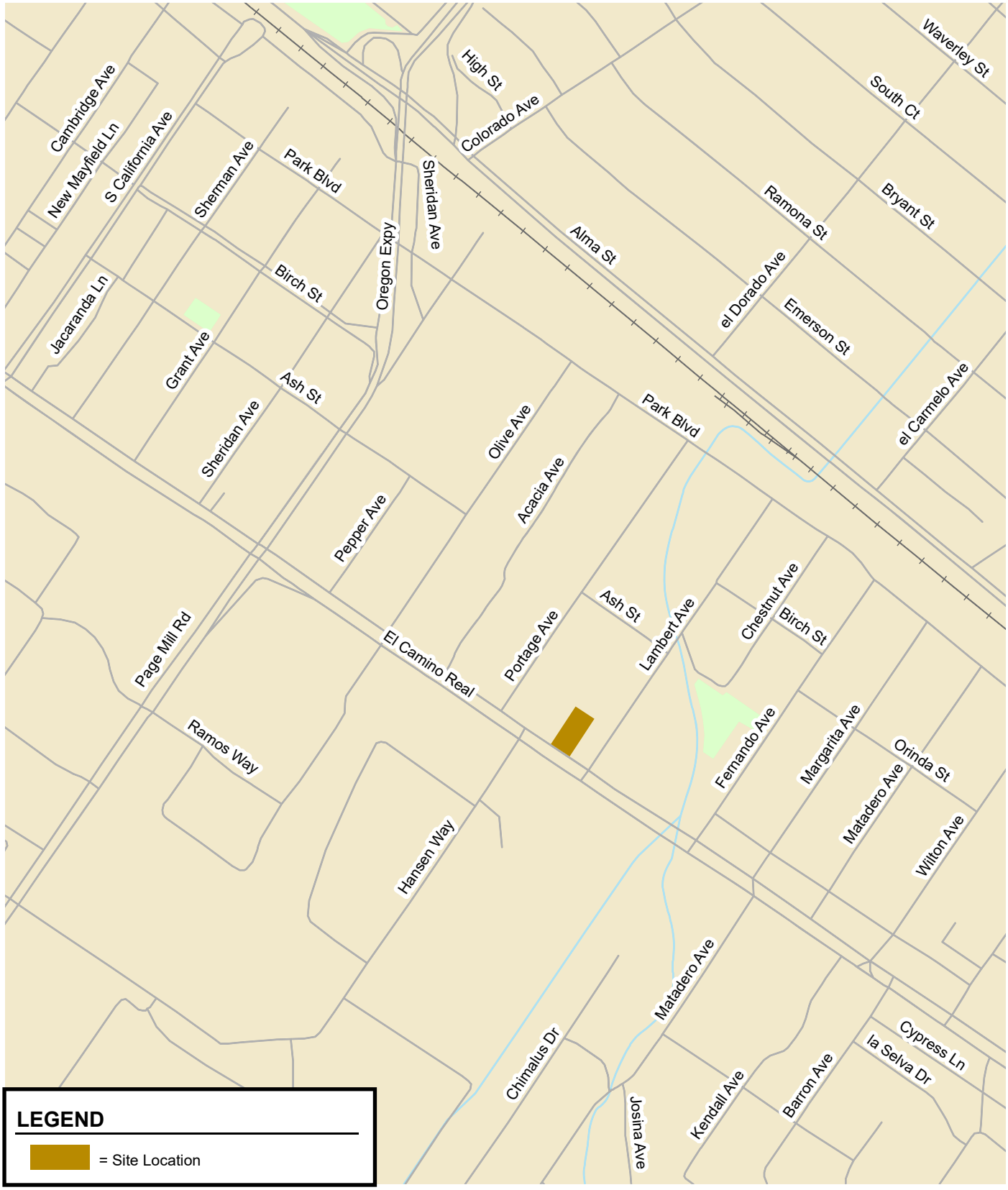

Figure 1
Project Site Location

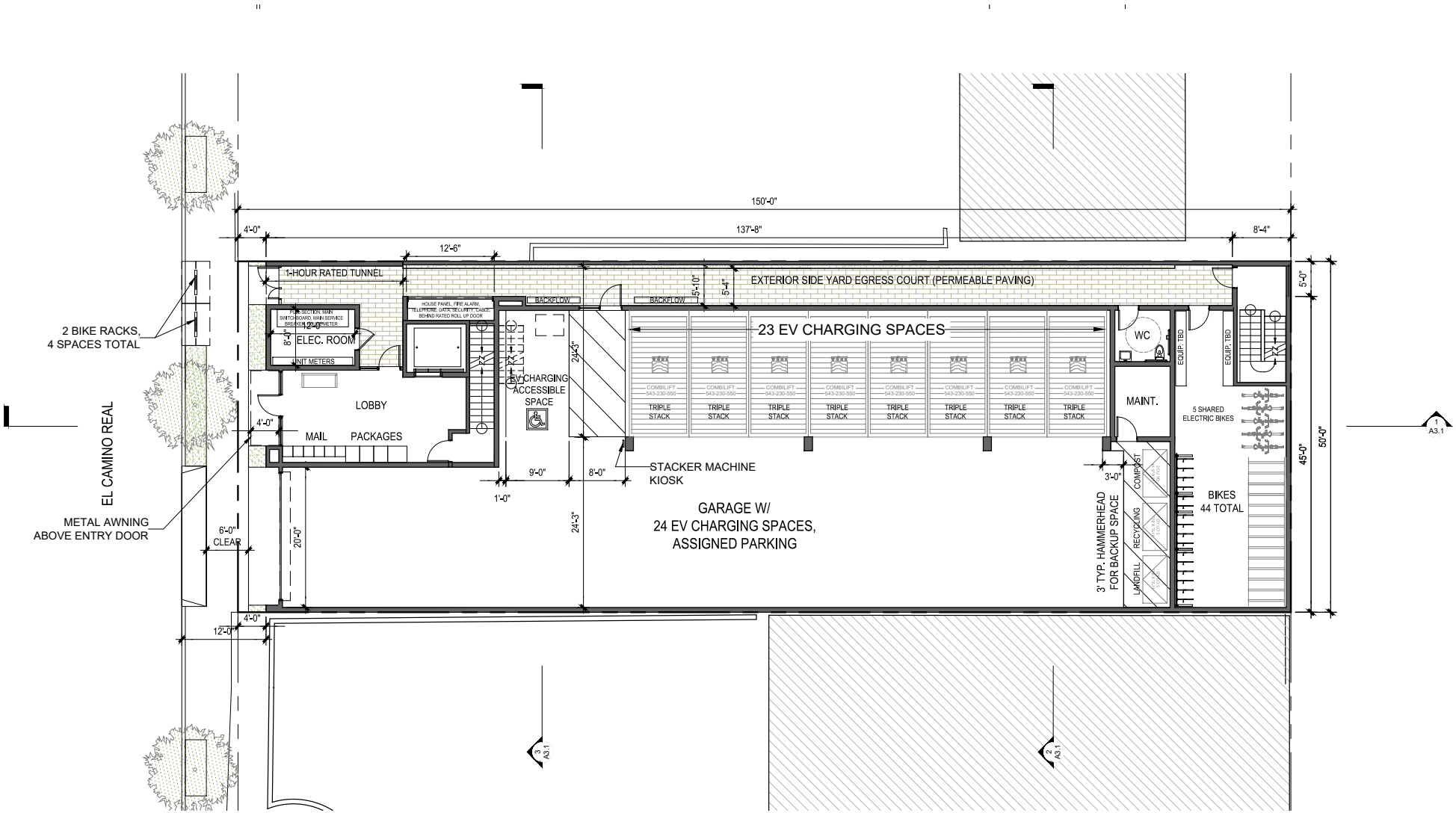

Figure 2
Site Plan

NORTH
Not to Scale

2. Existing Transportation Facilities

This chapter describes the existing transportation facilities and services near the project site that can be utilized to reduce parking demand.

Transit Services

The project site is well-served by transit within a quarter mile. Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority (VTA), the Alameda-Contra Costa Transit District (AC Transit), and Stanford University. VTA operates bus and light-rail transit (LRT) services in Santa Clara County, AC Transit operates Dumbarton Express bus routes, and Stanford University provides free Stanford Marguerite shuttles between the campus and various points of interests that serve the project area. The VTA, Dumbarton Express, and Stanford Marguerite bus and shuttle routes in the project vicinity and the bus/shuttle stops near the project site are summarized in Table 2 and shown on Figure 3.

VTA Local Route 22 and Stanford Shuttle Route Shopping Express (SE) serves the project vicinity with the closest bus stops (310 feet from the project site) located on El Camino Real and Hansen Way.

Caltrain

The California Avenue station is approximately 0.9 mile from the project site. Although it is not within comfortable walking distance, it can be accessed via bike lanes on Park Boulevard. From the site, bicyclists could use Portage Avenue, Ash Street, and Lambert Avenue to connect to bike lanes on Park Boulevard. Although there are no bicycle facilities on these streets, these streets are low-volume streets with slow travel speeds. More advanced bicyclists may use El Camino Real and Olive Avenue.

Caltrain provides frequent commuter train service between San Jose and San Francisco seven days a week, with stops at most cities in between. During the AM peak period between 7:00 and 10:00, there are five northbound trains (two limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the California Avenue station. During the PM peak period between 4:00 and 7:00, there are six northbound trains (three limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the California Avenue station. Bicycles are permitted on Caltrain, and there are bicycle racks and bicycle lockers available at the California Avenue station.

Figure 3
Existing Transit Services

Table 1
Existing Transit Service

Route	Route Description	Weekday Hours of Operation	Headways[1] (minutes)	Nearby Bus Stops/Stations	Walking Distance from Nearest Stop to Project Site (feet)
VTA Bus Route					
Frequent Route 22	Palo Alto Transit Center - Eastridge	4:15 AM - 3:00 AM (next day)	15-17	El Camino Real and Hansen Way	310
Local Route 89	California Avenue Caltrain - Palo Alto VA Hospital	6:30 AM - 6:15 PM	18-23	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Express Route 101	Camden and Hwy 85 - Stanford Research Park	6:15 AM - 8:18 AM	55-60	Hansen Way south of El Camino Real	785
Express Route 102	South San Jose - Stanford Research Park	5:47 AM - 6:47 PM	35	Hansen Way south of El Camino Real	785
Express Route 103	Eastridge - Stanford Research Park	4:55 AM - 6:19 PM	60	Hansen Way south of El Camino Real	785
Express Route 104	Milpitas BART - Stanford Research Park	6:07 AM - 5:39 PM	30-55	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Dumbarton Express Bus Route					
DB1	Union City BART Station - Stanford University	5:10 AM - 8:30 PM	30	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Stanford Marguerite Shuttle[2]					
Research Park	Palo Alto Transit Center - Stanford Research Park	6:53 AM - 10:12 AM 3:17 PM - 7:02 PM	17-18	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Shopping Express	Palo Alto Transit Center - San Antonio Shopping Center	3:00 PM - 10:50 PM	60	El Camino Real and Hansen Way	310

Notes:
1. Headways during weekday peak periods as of November 2023.
2. Operated by Stanford University. It provides free transportation connections between the Palo Alto Transit Center and the Stanford Research Park in the project vicinity.

Bicycle Facilities

The bicycle facilities that exist within one-half mile of the project site (see Figure 4) include striped bike lanes (Class II bikeway) and shared bike routes/boulevards (Class III bikeway). Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are signed bike routes where bicyclists share a travel lane with motorists.

Striped bike lanes are present along the following street segments:

- Park Boulevard, north of Lambert Avenue
- Hansen Way, for the entire street
- Page Mill Road, east of Miranda Ave
- California Avenue, between Hanover Street and El Camino Real

Bike routes are typically designated with signs and/or sharrows (shared-lane markings). Bike routes are appropriate for low-volume streets with slow travel speeds, especially those on which motorist volumes are low enough that passing maneuvers can use the full street width, on roadways with bicycle demand but without adequate space for bike lanes, and as “gap fillers” where there are short breaks in bike lanes due to right-of-way constraints. Bike routes are present along the following street segments, according to the City’s Bicycle and Pedestrian Transportation Plan (July 2012), the Mid-Peninsula Bicycle Map, and Google Earth:

- California Avenue, east of El Camino Real
- Margarita Avenue, for the entire street, and
- Park Boulevard, between Lambert Avenue and Margarita Avenue.

Pedestrian Facilities

A complete network of sidewalks is present along the streets in the vicinity of the project site, including El Camino Real, Portage Avenue, Hansen Way, and Lambert Avenue. Crosswalks with pedestrian signal heads are located at the signalized intersections in the project area, except on the south leg of the El Camino Real/Portage Avenue intersection. Overall, the existing network of sidewalks and crosswalks provides pedestrians with safe routes to transit services and other points of interest in the project vicinity.

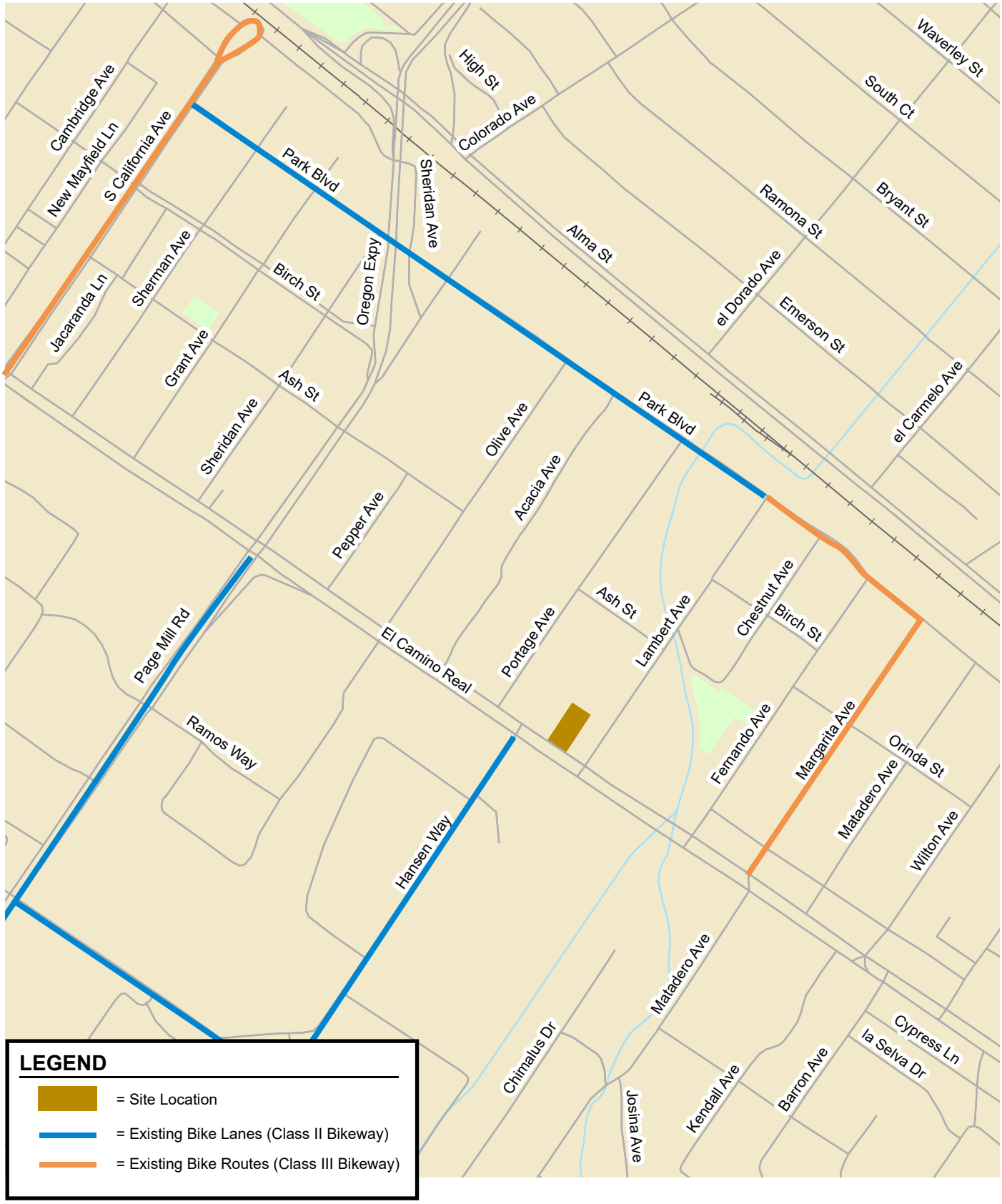

Figure 4
Existing Bicycle Facilities

3. Proposed TDM Measures

This chapter describes TDM measures that are proposed for the residential project. These TDM measures include planning and design measures related to the attributes of the site location, site design, on-site amenities, and TDM programs. The TDM programs, including services, incentives, and actions, will encourage residents to forego a personal vehicle, lessening the parking demand on site. 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.

TDM Administration and Promotion

Transportation Coordinator

The applicant will appoint a Transportation Coordinator who will be the primary contact with the City and will be responsible for implementing and managing the TDM plan. The Transportation Coordinator will be a point of contact for residents/tenants when TDM-related questions arise and will be responsible for ensuring that residents are aware of all transportation options and how to fully utilize the TDM plan. The Transportation Coordinator will provide the following services and functions to ensure the TDM plan runs smoothly:

- Provide transportation information brochures to new residents (see Appendix A for example).
- Provide trip planning assistance and/or ride-matching assistance to residents who are considering an alternative mode.
- Manage resident travel surveys. The results will be used to determine whether the implemented TDM measures are effective and whether new TDM measures should be implemented.

Online Transportation Kiosk

This TDM plan includes establishing an “online kiosk” with transportation information that residents could access from their smart phones, their homes, or anywhere else. This online kiosk will 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 the 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 VTA, 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 Dadnab, the 511 Carpool Calculator, the 511 Transit Trip Planner, real-time traffic conditions, etc.
- Carshare services, such as Zipcar.

The online transportation kiosk will be developed after construction and before occupancy by the property manager.

Table 2
TDM Measures and Implementation Responsibilities

TDM Measure	Implementation Responsibility
Program Administration	
Designating a Transportation Coordinator	Property Manager
Online Kiosk/TDM Information Board [1]	Transportation Coordinator
Transportation Information Brochures	Transportation Coordinator
Participation in Transportation Management Association	Building developer
Trip Planning Assistance	Transportation Coordinator
Transit Elements	
Proximity to Transit	Site Location
Transit Subsidy	Property Manager
Resources (schedules, route maps & other info)	Transportation Coordinator
Ride Matching Programs	
Ridematching Assistance	Transportation Coordinator
511 Ridematching Service	Available to public
Bicycle Facilities	
Bicycle Parking	Building Developer
Shared Electric Cargo Bikes	Property Manager
Resources (bikeway maps & other info)	Transportation Coordinator
Other On-Site Amenities	
Package Room	Building developer
High-Bandwidth Internet Connection	Building developer
Unbundled Parking	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.

Transportation Information Brochure

The Transportation Coordinator will provide transportation information brochures to all new residents when they first occupy the building and ensure that residents are aware of the programs available to them. This brochure will include information about transit maps/schedules (VTA, Dumbarton Express, Stanford Marguerite Shuttle, and Caltrain), locations of bus stops and Caltrain station, ride matching

programs (511.org's RideMatching service, peer-to-peer matching apps, such as Scoop and Waze), 511.org's carpool/vanpool subsidy program, bike maps, and bicycle parking on-site. Also included in the brochure will be information regarding how to contact the Transportation Coordinator.

Trip Planning Resources

There are several free trip planning resources that residents may not be aware of. Information on these services will be included in the online kiosk for new residents. These include:

- **511 Transit Trip Planner.** Online transit trip planning services are available to the greater San Francisco Bay Area through 511.org. Users enter their starting and ending points, and either the desired starting or ending trip time. The service can build an itinerary that best suits the user's preferences for the fastest trip, fewest transfers, or least walking.
- **Moovit.** A public transit app within the greater San Francisco Bay Area. Users enter their starting and ending points, and the service can build an itinerary that best suits the user's preferences for the fastest trip, fewest transfers, or least walking.

Palo Alto Transportation Management Association (PATMA)

The applicant can join the privately funded and administered Palo Alto Transportation Management Association (PATMA). TMAs are associations of businesses, property owners, tenants, and cities that offer programs and services to give commuters alternatives to driving alone. The PATMA reduces traffic and parking demand by improving commuting through free Caltrain and bus passes for workers making less than $70,000 annually, $5 per day Bike Love rewards for biking to work, and subsidized after-work Lyft ride for those commuting less than 5 miles. These programs are offered to all employees within Palo Alto.

Transit Elements

Proximity to Transit Services

The project is located within an easy walking distance (310 feet or 1-minute walk) from the nearby bus stops serving Route 22 and Stanford Shuttle Route SE and within 0.3 mile (about a 7-minute walk) from the remaining bus stops.

The hope is that the tenants of the development will mostly be Palo Alto Unified School District (PAUSD) employees. With that in mind, Route 22 serves the PAUSD office and Palo Alto High School on El Camino Real, approximately 1.3 miles northwest of the development (8-12 minutes bus ride from the project site). In addition, there are 3 other district schools and/or district offices that are within 0.5 miles of the bus corridor along El Camino Real and 3 additional district schools and/or district offices that are within 2/3 mile of the bus corridor (see Figure 5).If a majority of tenants are PUSD employees, it is more likely that they would utilize the transit system and forego a personal vehicle.

Express Routes 101, 102, 103, 104, and Stanford Shuttle Route RP provide access to the Stanford Research Park and Stanford University. These routes would be convenient for both people who work in the nearby area and for those who want to access the convenient commercial uses.

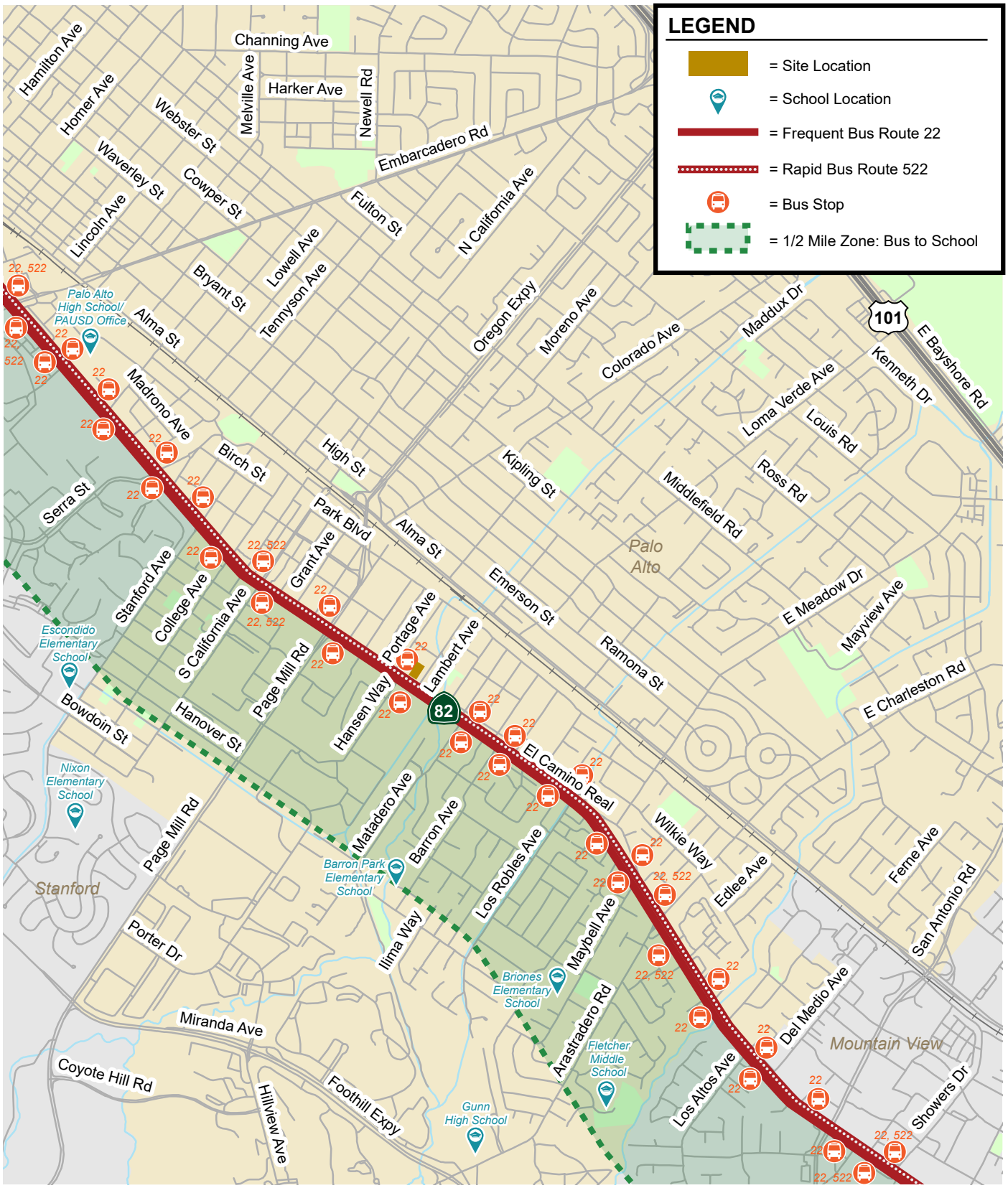

Figure 5
Palo Alto Unified School District Sites

NORTH
Not to Scale

Subsidized Transit Passes

Subsidized transit passes are an effective means of encouraging residents and employees to use transit rather than drive to work. Transit passes allow residents and employees to save money and avoid the stress of driving during commute periods. One element of this TDM plan is to provide residents with free or discounted transit passes to utilize public transit when commuting to and from the project site. The property manager will reimburse up to a combination of 9 monthly transit passes or credits for 9 tenants for the Palo Alto Link described below, based on the 9 fewer parking spaces provided than would be required.

These passes typically provide unlimited transit rides on local or regional transit providers for a low monthly fee; a fee that is lower than the individual cost to purchase a pass, since a bulk discount is given.

Ride Matching Programs

The 511 Merge service provides an interactive, on-demand system that helps commuters find carpools, vanpools, or bicycle partners. 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 Scoop and Waze Carpool, which utilize mobile apps to match commuters. These publicly available ride matching services benefit from a large database of commuters and may enable residents to locate people who may not live nearby or work on site but nevertheless share similar commute patterns.

Palo Alto Link

Palo Alto Link is the City's rideshare service option. Through an app, users can request a ride through most of the City for a standard fare of $3.50 per trip, with an additional $1.75 per each additional passenger. Youths, seniors, low-income users, and disabled users are able to use the service for a discounted rate of $1.00 per ride. The service provides 10 vehicles to serve the City except for Stanford, areas north of Bayshore, and south of I-280. There is also a Link Pass option of $20 for up to 4 rides per day for 7 days or $65 for up to 4 rides daily for 30 days. The project will provide credit for up to 9 tenants to use the service or transit passes, as described above.

Bicycle Facilities

Bicycle Parking

Providing secure bicycle parking encourages bicycle commuting and reduces the need for a vehicle. The project will provide 44 long-term bike parking spaces to be covered and lockable. The long-term bicycle parking spaces will be located in the eastern section of the site, accessible from El Camino Real and along the southern border of the site.

Shared Electric Bicycles

The project will include at least 2 shared electric bicycles for residents to use to shop at the nearby grocery stores along El Camino Real and California Avenue. The shared bicycles will be located next to the long-term bicycle parking spaces. The shared bicycles will be adequately maintained by the property. The bicycles will be replaced if they are no longer viable.

The shared bikes will use a commercial bike sharing system (e.g., On Bike Share or similar) that allows for tenants to sign up using a mobile app, check out a bike, pay-as-you-go, and then return and lock. These systems track usage, location, and return. These systems have racks, locks, and GPS tracking to ensure that tenants avoid misuse via pay-per-use, lock the bikes while in use, and return the bikes when done using.

The system will use electronic smart locks mounted to the front of the bike. The smart locks are used to dock the bike to the rack. The smart locks use rechargeable batteries monitored by the software. The bike racks do not require any power or internet.

Bicycle Resources

As part of the information available in the online kiosk and bike cafe discussed above, resources useful to cyclists will be included. For example, the local bikeways map will be posted for easy reference.

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.

- 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
- Links to bicycle organizations

On-Site Amenities

Package Room

The project will provide a package area to store residents' package deliveries. The storage will be located next to the mailbox for easy access by the carriers and the residents. Sufficient package storage space enables residents to make on-line purchases conveniently, which could reduce vehicle ownership. Having goods delivered to residents reduces trips and the need for a vehicle as residents would not have to go off-site to obtain items.

High-Bandwidth Internet Connection

The project will provide high-bandwidth internet capability for residents. Wireless connectivity supports teleworking, which reduces off-site trips to work and the need for a vehicle.

Unbundling of On-Site Residential Parking

To encourage non-auto transportation methods and to reduce costs for residents, on-site residential parking will be unbundled from each living unit. Unbundled parking means separating the cost of parking from residential leases and allowing residents to choose whether to lease a parking space. This will allow residents without cars to rent a unit without having to pay for a parking spot. Parking spaces will be added to the leases only for tenants who desire parking. Unbundling of parking encourages residents to forego a second car or to have no car at all.

4. TDM Monitoring and Reporting

The purpose of this TDM plan is to reduce the overall parking demand generated by the proposed residential building. The property manager/Transportation Coordinator will be required to submit to the City an annual TDM monitoring report that identifies the TDM plan's effectiveness at achieving the parking demand reduction.

The initial TDM monitoring report for the project will be submitted two years after final occupancy. Subsequent reports will be prepared annually for five years and will be submitted to the City upon request after 5 years. Annual TDM monitoring reports will be prepared by a qualified third-party consultant. At a minimum, the first TDM monitoring report will be prepared by a professional transportation consultant. The property manager/Transportation Coordinator will coordinate with City staff for any additional reporting requirements.

Annual resident surveys and parking counts will be conducted to determine the mode split and parking demand among residents and whether the existing TDM measures are effective. The survey will include questions to the residents around their vehicle parking locations and frequency of driving to work in order to determine the parking demand (see Appendix B). There is no required percentage of participation for the survey; however, monitoring reports typically strive for 30% participation. The parking counts will occur at midnight on a typical weekday (Tuesday to Thursday), as most residents would be parked at home during that time. If 100% of the parking spaces are occupied during annual vehicle parking counts, the annual resident survey must include a question to the residents about their vehicle parking locations in order to determine whether spillover parking is occurring. This will be assessed by comparing the parking count/parking demand and parking provided at the site. The goal is to ensure that the parking demand is less than or equal to the parking supply. Additional TDM measures will be necessary if spillover parking occurs.

If the report indicates the project is not effective in reducing parking demand, the report will outline additional measures that must be adopted in the coming year to achieve the goal, along with an implementation schedule. The annual report to the City will also include a brief summary of the TDM measures that were in place during the preceding year, with an explanation of any changes or new programs.

Appendix A
3265 El Camino Real Commuter Flier Example

3265 El Camino Real Commuter Resources

TRANSIT & SHUTTLES

VTA

Caltrain

SamTrans

Transit Planner Tool

Free Transit Passes (income eligible)

VTA Bus Routes

Route 22

Express Route 101

Express Route 102

Express Route 103

Rapid Route 522

Additional Service Routes

Stanford Marguerite SE

Dumbarton Express DB

SERVICES & INCENTIVES

Free Guaranteed Ride Home program

Free Lyft for Late-Night trips

Commute Planning

Bay Area Spare the Air Alert Notices

CARPOOL & VANPOOL

Palo Alto Link – rideshare

Carpool Savings Calculator

511 Merge – online carpool matching

$500 monthly 511 Vanpool Group Subsidy

$400 monthly VTA Vanpool Group Subsidy

*(combine 511 and VTA vanpool subsidies and receive a **$900** monthly group benefit.)*

BICYCLE

Secure bicycle storage in the garage

Bicycle Resources

Bike Love Program - $5 per day

Bike to Work

Bikes on Transit

Palo Alto Bike Map

Santa Clara County Bikeways Map

San Mateo County Bike Map

San Francisco Bay Trail

Silicon Valley Bicycle Coalition

Appendix B
Residential Survey Example

1. Do you own/lease a car that is parked at the property?

- Yes
- No

2. Are you able to always find parking on site?

- Yes
- No

3. What method of transportation do you typically use to go to work/school?

- Car
- Bike/Walk
- Public Transportation (Bus, Train, Light Rail, etc.)
- Carpool/Vanpool
- Ride-Share Services (Uber, Lyft, etc.)
- I typically work from home or don't work/go to school
- Other (Please Specify)

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4. Do you use the free transit pass provided by the property?

- Yes
- No
- Unaware of the transit pass

- If No, why not?

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5. Do you use the Palo Alto Link and request for credits from the property?

- Yes
- No
- Unaware of the Palo Alto Link

- If No, why not?

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6. Is there anything preventing you from taking public transportation/Palo Alto Link to work/school?

- I already take public transportation
- I bike/walk to work/school
- There are no public transportation options to/from my work/school
- Public transportation takes too long
- Other (Please Specify)
