

1919 O'Farrell Street TDM Plan



Image source: DNA Design and Architecture

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Prepared by:

Steer
800 Wilshire Blvd, Suite 1320,
Los Angeles, CA 90017
USA

+1 (213) 425 0990
www.steergroup.com

Prepared for:

The City of San Mateo
330 W. 20th Avenue
San Mateo, CA 94403

23946201

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1 Introduction

A Transportation Demand Management (TDM) Plan is a long-term management strategy for an organization or site that seeks to deliver sustainable transportation objectives. It is articulated in a document that is regularly reviewed by the implementing organization. It involves identifying an appropriate package of measures aimed at promoting sustainable travel, with an emphasis on reducing reliance on single occupancy car journeys and vehicle miles traveled (VMT). It can also assist in meeting other objectives such as increasing accessibility as well as reducing congestion, greenhouse gases and noise.

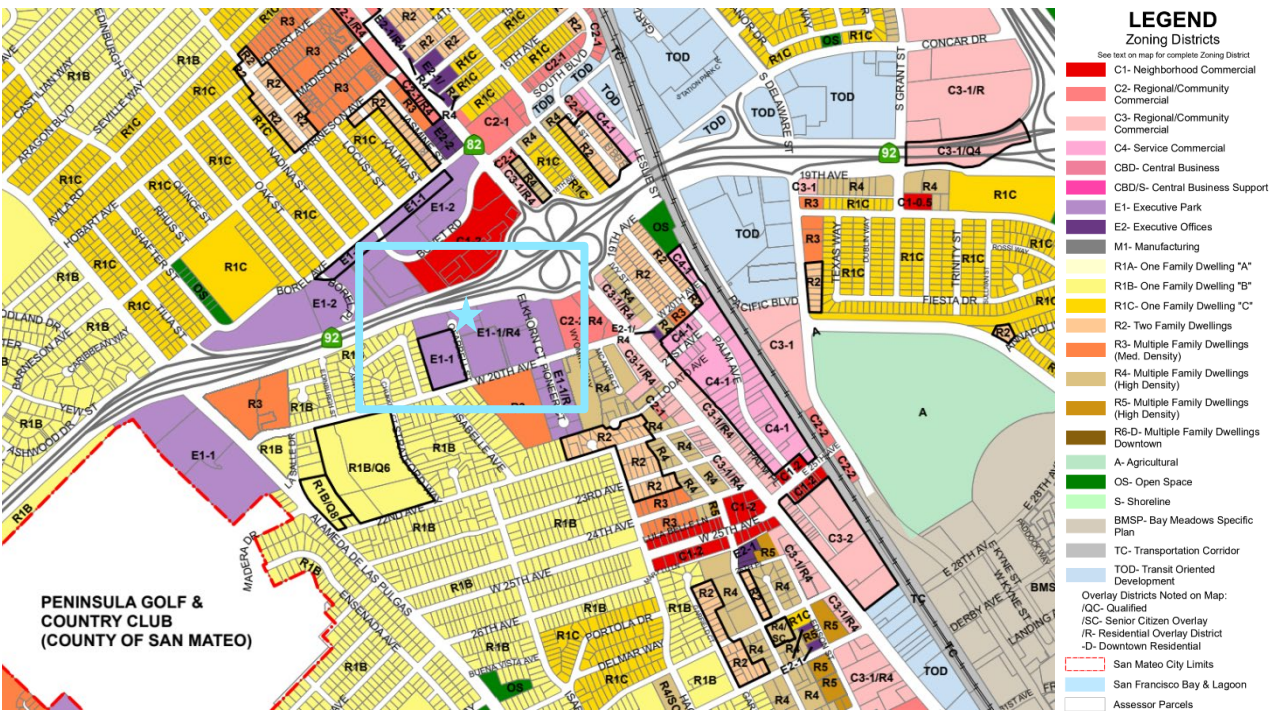
This TDM Plan was produced on behalf of the City of San Mateo for the 1919 O'Farrell Street project site, which is a planned residential rental property owned and developed by O'Farrell Malex, LLC and 1919 O'Farrell Investment Group, LLC.

Project Description

The project site is located at 1919 O'Farrell Street in the Beresford Park neighborhood in the City of San Mateo within the 94403 ZIP code. The project involves the demolition of an existing one-story office building to construct a four-story, 49-unit multi-family apartment community with subterranean parking. It is expected that the project will break ground in 2022.

The site is zoned for Executive Park/High Density Multi-Family (E1-1/R4) uses. As shown in Figure 1, the area immediately surrounding the project site, designated with a blue box, is primarily zoned Executive Park/High Density Multi-Family, which allows for mixed use development. The neighboring parcels south of the Highway 92 are zoned the same as the project site, except for City Hall, which is zoned as Executive Park (E1) only. The area to the southwest is primarily zoned Single Family (One Family Dwelling, R1B), while the areas to the southeast are predominantly zoned Multi-Family (R4). The parcels just east of the Executive Office/High-Density Multi-Family zone abutting El Camino Real are designated Regional/Community Commercial (C2).

Figure 1. City of San Mateo Zoning Map



Source: City of San Mateo Website

The project is located on a 0.71-acre parcel which allows a base density of 36 units. Of the 36 units, four are dedicated to very low-income households. The four units make of 11% of the base density, which allows a density bonus of 35%, or 13 additional units, under State law. Thus, there will be a total of 49 units on the property. Each unit on the project site will be 746 to 1,556 square feet in size. Table 1 provides additional details regarding the proposed project compared to the parcel's current use.

Table 1. Proposed Project Attributes

	Current	Proposed
Description	1-story office building	4-story multi-family residential building
Square Footage	3,967 sq. ft. of office space	55,541 sq. ft. of living space
Zoning Designation	Executive Office/High Density Multi-Family	Executive Office/High Density Multi-Family

The project proposes a total of 64 subterranean vehicle parking spaces on-site, which is 30 spaces more than required. Additionally, the project will also provide infrastructure for long and short-term bicycle parking for residents and guests, with room for 57 bicycles across the property. The nearest Caltrain station, the Hayward Park Station, is located within a 0.8-mile walk of the site.

The residential community will be managed by a team of property managers once units are available for rent.

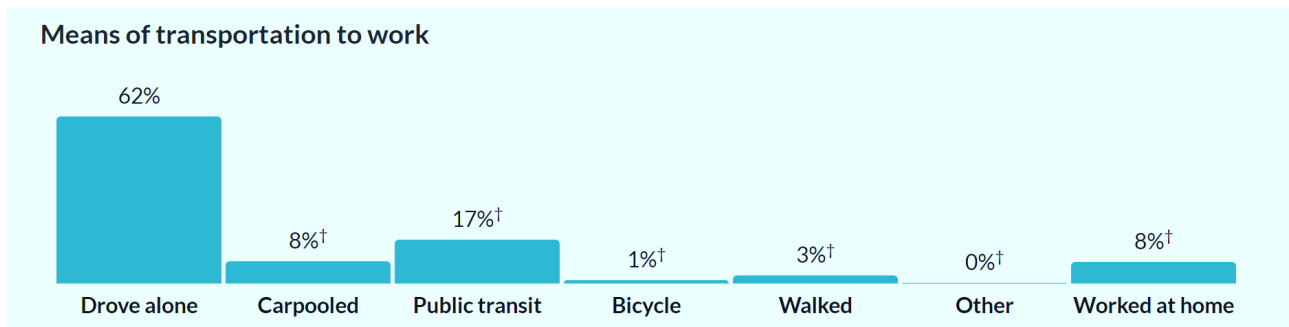
Demographic and Travel Trends

The travel trends and insights detailed in this section are based on data associated with the project's census tract (census tract 6074.00), which has a population of 5,017 people. American Communities

Survey (ACS) and Census data from 2018 indicate that those who live in this tract tend to be young families with children or never-married individuals who have high levels of education and household incomes. A majority (59%) of the households in the census tract live in multi-unit buildings and 53% are renters.

Additionally, the ACS data indicates that a majority (62%) of those who live within the census tract commute to work by driving alone (Figure 2). The data also shows that carpool and transit are commonly used. The mean commute time is 31.5 minutes.

Figure 2. Commute mode split for residents living in census tract 6074



Source: ACS 2018 5-year, Census.gov (Universe: workers aged 16 and up)

As shown in Table 2, residents within the census tract commute to a wide variety of locations with approximately 18% commuting to San Francisco, 14% commuting within the City of San Mateo, almost 7% commuting to Redwood City and the remaining commuting to various locations across the region.

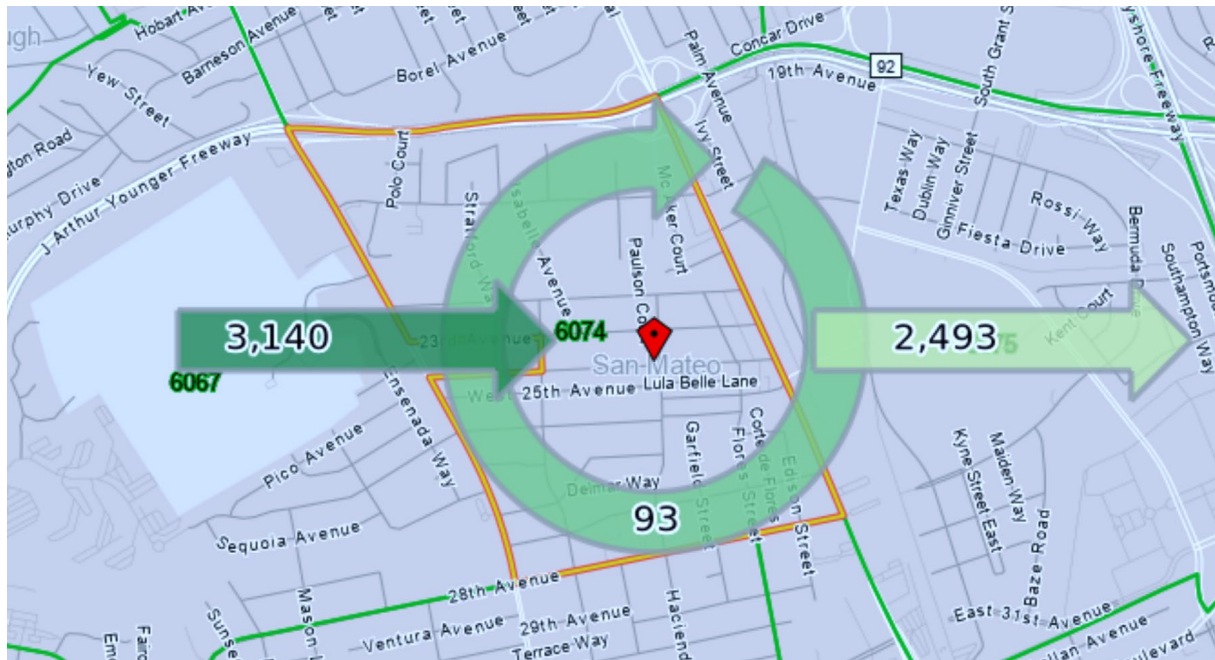
Table 2. Where people living in census tract 6074 worked in 2017

Job Locations	Count	Share
San Francisco, CA	476	18.4%
San Mateo, CA	355	13.7%
Redwood City, CA	168	6.5%
San Jose, CA	133	5.1%
Palo Alto, CA	114	4.4%
Burlingame, CA	93	3.6%
Mountain View, CA	92	3.6%
Other Locations	1,155	44.7%
All Places (Cities, CDPs, etc.)	2,586	100%

Source: U.S. Census Bureau, Center for Economic Studies

Inflow outflow analysis of the census tract, as shown in Figure 3, depicts that about 2,493 individuals commute out of the area and 3,140 people commute into the area for work on a daily basis. 93 individuals both live and work inside the same census tract.

Figure 3. Inflow Outflow of Commuters for census tract 6074



Source: U.S. Census Bureau, Center for Economic Studies

2 Site Assessment

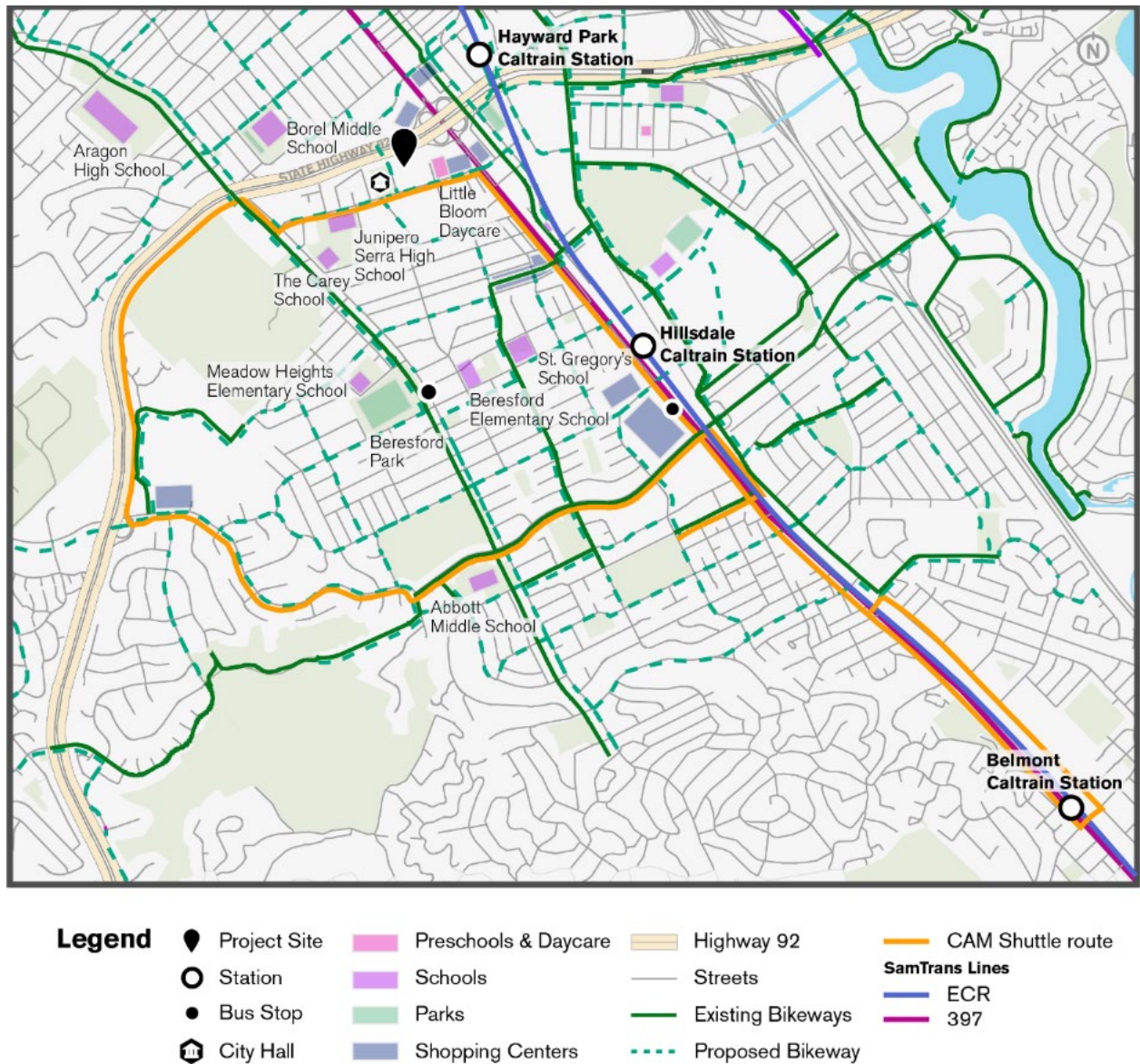
A site assessment was conducted as part of the TDM Plan development process. The site assessment included a description of the site's geography and road network, pedestrian and bicycle infrastructure, transit services, nearby attractions, and existing TDM services. For the complete assessment, please refer to the 1919 O'Farrell Street Site Assessment memo in Appendix B. Key findings from the site assessment are as follows:

Geography and Road Network

The project site is located at the end of a cul-de-sac at grade level as seen in Figure 4, which provides a map view. The site is surrounded by:

- Highway 92 to the north
- The Park 20 Apartments and SR-82 (El Camino Real)-adjacent shopping centers to the east
- A single-story office building and Corte Bella condos to the south
- A three-story office building, parking garage, and San Mateo City Hall to the west
- Junipero Serra High School to the southwest

Figure 4. A view of the project site



O'Farrell Street connects to West 20th Avenue, which in turn connects the project site to South El Camino Real to the East, Alameda de las Pulgas to the West and Highway 92 to the North (via El Camino Real).

The intersection of El Camino Real and 20th Avenue, the first major intersection coming out of the 1919 O'Farrell Street development, sees moderate congestion throughout the day with a 'C' level of service during the AM and 'D' level of service during the PM rush hours. Table 3 provides details on the level of service for the El Camino Real and 20th Avenue intersection.

Table 3. Levels of service for the El Camino Real and 20th Ave. intersection

	Signalized Intersection Peak-Hour Levels of Service (2016 Conditions)			
	AM Peak Hour		PM Peak Hour	
	<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
El Camino Real and 20th Avenue	34.5	C	45.9	D

Source: San Mateo Existing Conditions Circulation Report (October 2018)

The site has quick access to Downtown San Mateo, which is less than two miles away. Travel times between the project site and Downtown San Mateo are as follows:

- 7 mins by car
- 9 mins by bike
- 7 mins by e-bike
- 18 mins by transit (ECR Bus)
- 28 mins by walking

Pedestrian and Bicycle Infrastructure

The site's topography, street network, and proximity to commercial centers are conducive to pedestrian and bicycle access. Walkscore.com gives the site an 82/100 for walking, which they classify as "very walkable – most errands can be accomplished on foot."

There are two Class III Bicycle Routes connecting with 20th Avenue near the site. The first of these is to the west of the project site, running along Alameda de las Pulgas from Crystal Springs Road through the southern limits of the City (with a small portion of Class II lanes located in the Hillsdale area to the south).

The bicycle route on Alameda de las Pulgas provides access to several schools and parks, and it eventually connects to the Hillsdale Shopping Center and Hillsdale Caltrain Station via Class II and III bike facilities along Hillsdale Boulevard. To access Downtown using Palm Avenue, bicyclists must cross El Camino Real and ride approximately half a mile before reaching a bike lane north of South Boulevard. The Palm Avenue route offers no protected bikeways to connect between the site and the Hayward Park Caltrain Station.

Due to a mixture of traffic speed, volume, and presence of on-street vehicular parking, Alameda de las Pulgas, Palm Avenue, and 20th Avenue are all rated as 'high-stress' streets by the April 2020 San Mateo Bicycle Master Plan. 'High-stress' streets are defined as roads which would be uncomfortable or unappealing to all cyclists other than those with high levels of experience and risk tolerance or those traveling by e-bike.

In terms of nearby bicycle amenities, BikeLink operates multiple on-demand lockers located at nearby Caltrain Stations as well as the Hillsdale Shopping Center and its surrounding area. BikeLink allows bicyclists to securely store their bikes in lockers using a stored-value card that can be purchased online or at nearby vendors. There are four lockers at the nearest Caltrain Station (Hayward Park), 24 at the Downtown station, and 28 around the Hillsdale Shopping Center. Additionally, four free-to-use public bike repair stations are located within 1.5 miles of the project site. These stations are located at San Mateo City Hall, the San Mateo Main Library, Paddock Park, and the downtown San Mateo Caltrain station.

City of San Mateo Bicycle Master Plan

The **2020 Bicycle Master Plan** was adopted by the City Council on April 6, 2020 and serves as a blueprint for expanding and improving the San Mateo bicycle and mobility network in the coming years. The Plan includes three high-priority recommendations relevant to the 1919 O'Farrell Street Project site:

- 20th Avenue is slated for a Class II bike lane between Alameda de las Pulgas and El Camino Real and a Class III bike boulevard between El Camino Real and Palm Avenue.
- Palm Avenue is prioritized for an upgrade from a Class III bike route to a Class II bike lane from South Boulevard to 25th Avenue.
- A Class III bike boulevard is proposed to stretch from 20th Avenue just south of the site along Isabelle Avenue, 22nd Avenue, and Hacienda Street to 39th Avenue.
- A bike lane is proposed along Alameda de las Pulgas from Crystal Springs Road to 26th Avenue, where it is proposed to continue further south as a buffered bike lane.

Transit Services

The project site is located within a 0.8-mile walk of the Hayward Park Caltrain Station and is also served directly by the Campus Drive (CAM) Shuttle, which connects to the Hillsdale Caltrain station, providing access to north-south regional travel, as well as multiple San Mateo County Transit District (SamTrans) bus routes as shown in Table 4.

Table 4. Summary of Transit Services

Transit Service	Hours of Operation	Frequency	Closest Stop	Distance to Closest Stop	Cost
CAM Shuttle (operated by Commute.org)	Monday – Friday during commute hours. Does not operate on holidays	4 trips in the AM and 5 in the PM every 45-60 minutes*	W. 20 th Avenue and Isabelle Avenue (City Hall)	0 miles (on site)	Free
BART	Monday – Friday before 9 PM	30 minutes	Millbrae station	8.4 miles	\$4.25+**
Caltrain	Daily – 6 AM to 11:40 PM	60 minutes (30 minutes from the Hillsdale station)	Hayward Park station	0.8 miles (1.5 miles to Hillsdale station)	\$3.20-\$10+**
SamTrans Route ECR	Daily – 4 AM to midnight	15 minutes	El Camino Real and W. 20 th Avenue	0.4 miles / 8-minute walk	\$2.25 (Cash/Mobile), \$2.05 (Clipper)
SamTrans Route 250	Weekdays – 6 AM to 10 PM Weekends – 9 AM to 6 PM	30 minutes	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	\$2.25 (Cash/Mobile), \$2.05 (Clipper)
SamTrans Route 397	Daily – All night bus running between midnight and 6 AM	60 minutes	El Camino Real and W. 20 th Avenue	0.4 miles / 8-minute walk	\$2.25 (Cash/Mobile), \$2.05 (Clipper)

Table 5. Summary of Transit Services Continued

Transit Service	Hours of Operation	Frequency	Closest Stop	Distance to Closest Stop	Cost
SamTrans Route 294	Daily – 6 AM to 9 PM	60 minutes	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	\$2.25 (Cash/Mobile), \$2.05 (Clipper)
SamTrans Route 295	Weekdays – 6 AM to 5 PM	120 minutes	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	\$2.25 (Cash/Mobile), \$2.05 (Clipper)

*Reduced trips due to COVID-19

**Depending on distance

Nearby Destinations

Key destinations in close proximity to the project site include:

- Four shopping centers within 0.8 miles of the site that offer access to restaurants, grocery stores, banks, a pharmacy, a health clinic, a gym, and a post office.
- Two childcare centers within 0.7 miles.
- Three parks within one mile.
- Over one dozen schools within two miles including the public schools that the project is zoned to, as shown in Table 6.

Table 6. Zone Public Schools for 1919 O'Farrell St.

Nearby Schools	Travel distance in miles
Beresford Elementary School	1.0
Aragon High School	1.0
Abbott Middle School	1.7

Available TDM Services

Commute.org Incentives

Commute.org is San Mateo County's Transportation Demand Management Agency. Their resources are available to all residents and employees in the County. As such, the residents and employees of the project site will be able to take advantage of TDM resources curated for those commuting within the County and in the surrounding areas. The [Commute.org website](#) serves as a regional clearinghouse for all transportation and commuting-related information. They also provide the following services:

- **CAM Shuttle:** Commute.org manages the CAM Shuttle connecting the Hillsdale station to the project site on Campus Drive. It serves as a free first/last mile connector to Caltrain. There is currently one vehicle on the route that operates at a 45 to 60-minute frequency.
- **Try Transit Incentives:** Commute.org provides a free 'try transit' program that allows individuals to request free tickets for the transit option that works best for them.
- **Carpool Incentives:** Commuters who use Waze Carpool or Scoop are eligible to earn gift cards worth up to \$100.
- **Vanpool Incentives:** Drivers of a new vanpool can earn a \$500 reward and vanpool riders can be reimbursed \$100/month of their vanpool rental costs for up to three months.

- **Bike Education:** Free bike safety workshops and bike marketing materials are available to residents and commuters. These are scheduled upon request and are available to employers and other sites, including residential properties, within San Mateo County. They can be 60, 75, or 90 minutes in length depending on what is ideal for the requesting party and include time for Q&A.
- **Bike Incentives:** Commute.org currently provides commuters who live or work in the County with incentives worth between \$25 to \$100 for biking to work. The program was active until December 2020 but Commute.org is likely to continue providing a bike incentive past December if funding is available.
- **E-Bike Rebate:** An e-bike rebate was recently approved by Peninsula Clean Energy in partnership with Commute.org. The program will be available for three years and offers a rebate of up to 80% purchase price (\$800 cap) for those within 400% of the federal poverty limit.
- **Guaranteed Ride Home (GRH)** – Individuals who do not drive to work alone can take advantage of a GRH program in case of an emergency. Those who work or attend college in San Mateo County are eligible for Commute.org's GRH program that covers the cost of a ride home (up to \$60) in the event of an emergency up to four times per year. Contra Costa, Alameda, San Francisco, and Marin Counties also offer similar GRH or Emergency Ride Home programs.

3 Project TDM Measures

The TDM strategies in this section are effective and appropriate TDM measures based on the project's size, location, and land use. They provide guidelines for implementation, cost estimates, expected timelines, and indicate the anticipated responsible party for each recommended measure. It is understood that the property management team will be the 'responsible party' for most TDM measures outlined below.

A City of San Mateo guideline based on the Sustainable Streets Final Plan (accepted by City Council in February 2015), recommends that all new developments within City limits submit a TDM plan with a trip reduction target of 10 percent. This section aims to estimate the percentage of trips that each strategy can reduce for the property. It is important to note that many of the TDM strategies in this section are scalable and can easily be expanded by increasing the amount of resources allocated. The remaining TDM strategies play a supportive role that help increase the impact of the other strategies listed. The percent vehicle trip reduced calculations in this section are based on the City's estimate of 223 total daily trips for the property.

TDM Coordinator

An on-site TDM coordinator would act as a liaison between the developer, City, and the residents to create safe and walkable communities. Appointing a TDM coordinator would help develop, implement, and report on the various TDM strategies. This person would be responsible for coordinating and marketing the selected TDM strategies as well as maintaining working relationships with the City and nearby developments.

Implementation Guidelines:

Assign the role of TDM Coordinator to an individual on the apartment management team to plan and implement the TDM program. Allocate approximately 5 hours per month for the TDM Coordinator to spend on the following activities:

- Annual Monitoring: Survey the residents and compile a monitoring report for submission to the City of San Mateo once a year. Additional hours may be needed during this time - see Chapter 5 for details.
- TDM Program Coordination and Outreach: Organize and promote sustainable travel options through apartment communications such as emails, newsletters, and social media. Specific tasks include:
 - Organize and promote the trip reduction and air quality strategies detailed in the following sections
 - Promote the sustainable transportation options available to the residents

Estimated timeframe	Ongoing
Estimated cost	\$2,000 per year
Responsible party	Apartment management team
Estimated daily VMT reduced	11 to 21
Percent of daily vehicle trips reduced	Spending 5 hours per month organizing TDM programs will lead to a .5% to 3% decrease in vehicle trips (can be reduced further with an increased commitment in time and TDM strategies)

Institutionalizing TDM

It is important that the TDM program be implemented as the site becomes occupied and when units eventually begin to turn over and be updated as needs change and transportation options and technology evolve. Therefore, the TDM Plan should become institutionalized as part of the property's organizational structure to ensure the program remains in place and new residents are aware of its existence.

Implementation Guidelines:

Institutionalize the TDM Program through the apartment lease. Describe the TDM infrastructure, amenities, and programs available to residents and how they will be made available to the residents in the lease.

Estimated timeframe	During the drafting of lease language and ongoing
Estimated cost	\$0 – it is likely that this cost will already be undertaken by the property management in order to establish the details of the lease agreement, so including TDM in this effort will likely come at no additional cost.
Responsible party	Property Management
Estimated daily VMT reduced	0 to 1
Percent of daily vehicle trips reduced	0%

New Resident Packets

Individuals are most likely to make a change in their transportation behavior alongside other life changes. This means that providing new residents with a packet that offers them all their transportation options would increase the likelihood for them to choose options other than driving alone.

New residents would be provided with welcome packets that include a Clipper Card with stored value, customized transportation information about nearby transit routes, bus stops, bike maps and routes and other TDM initiatives undertaken by the property. The welcome packets should also include the contact information of the property's TDM Coordinator. Figure 5 offers an example of a welcome packet distributed to new residents in Santa Monica, CA.

Figure 5. A New Resident Packet distributed in Santa Monica**Implementation Guidelines:**

Design a New Resident Packet for the property that provides information on all transportation modes available as well as services that may make choosing sustainable travel easier. The TDM Coordinator can work directly with Commute.org, who can assist the property in purchasing Clipper Cards as well as provide supportive materials, commuter incentives and advice. The packet should include:

- A Clipper Card with stored value (\$10 to \$20 would be ideal)
- Map depicting a 10- and 20-minute walk and bicycle radius
- Information about the transit options available (free CAM shuttle, SamTrans, Caltrain, and BART) and how to connect to them including Park and Ride options
- Information about all the transportation related amenities offered by the property
- Information about Commute.org services and resources
- Information about Guaranteed Ride Home and how to register

Estimated timeframe	Pre-occupancy, ongoing
Estimated cost	\$2,000 to develop packet, \$10 to \$20 in Clipper Card stored value, then up to \$3 per packet to print and distribute Approximately \$3,000 total
Responsible party	Owner or consultant to develop; Property Management team to maintain and distribute long term
Estimated daily VMT reduced	114 to 127
Percent of daily vehicle trips reduced	2.7% to 3.1%

Multimodal Wayfinding Signage

A low-cost strategy to promote sustainable modes of transport would be to provide multimodal wayfinding signage at entry and exit points of the property. Wayfinding can help people visualize how close sustainable travel options are and in which direction as well as familiarize them with nearby modes. Examples of wayfinding window decals used in the City of Santa Monica are shown in Figure 6.

Implementation Guidelines:

Using consistent and legible design guidelines, create and post a network of pedestrian-scale signage at key entry and exit points of the property. The signs should point users to key destinations and give them estimates for how far away they are by walking and/or biking.

Be sure to evaluate the signage regularly to take into consideration any infrastructural or service changes that may impact options.

Figure 6. Multimodal wayfinding window decals used in Santa Monica



Estimated timeframe	Pre-occupancy
Estimated cost	Under \$500
Responsible party	Property Management
Estimated daily VMT reduced	1
Percent of daily vehicle trips reduced	0%

TDM Communications

In order to encourage individuals to choose sustainable travel options, it is critical to provide them with the information needed to do so. Having a communications plan that outlines what information to share and how will set clear expectations for the TDM Coordinator.

Communicating Transportation Information:

- Website** - Having all transportation-related information and resources available in one virtual location makes it easy and convenient for residents to learn about their travel options. The webpage should provide information about relevant special offers and programs from outside agencies (such as the Peninsula Clean Energy e-bike subsidy while there is funding), nearby transit routes and schedules, bike and pedestrian paths, services offered by Commute.org and other amenities. This is especially helpful for residents new to the neighborhood who are unaware of the transportation options available to them.
- Resident Newsletters** – Include TDM messaging in resident newsletters on a regular basis to inform and update residents of sustainable travel options, upcoming events, and activities. Commute.org sends out regularly scheduled newsletters that are a good reference for up-to-date transportation information. Each newsletter could advertise different TDM measures and events

such as commuter promotions and incentives and highlight resources such as 511 and Commute.org.

- **Apartment Social Media Channels (Facebook, Instagram, etc.)** – Promote transportation options and updates via the apartment website and social media channels such as Facebook, Instagram and Nextdoor.

Transportation Options to Promote:

- All **TDM incentives and services** offered by the property to 1919 O'Farrell residents, such as Parking Cash Out and bike parking
- **Resources for trip planning:** Transit app, Google Maps or Citymapper offer excellent smartphone-based trip planning options
- **A link to Commute.org** with information (see page 9) about the resources available to residents, especially information regarding the mode-specific resources and subsidies offered.
- Information about the **Guaranteed Ride Home (GRH) or Emergency Ride Home (ERH)** programs offered by the surrounding counties (e.g., Commute.org's GRH program for commuters who work in San Mateo County, Alameda County's GRH program, Marin County ERH program, etc.)
- Information on the **CAM Shuttle**
- Information about **Safe Routes to School** programs
- Links to **transit information**
 - Caltrain, including Information about bikes on board, secure bike parking, and Park and Ride lots and at the Hayward Park, Hillsdale, and Belmont stations
 - BART, including information about bikes on board, secure bike parking
- Information about **biking**, including links to local bike maps and cycling resources

Implementation Guidelines:

Create a webpage that lives on or is linked from the property's resident facing website and includes all the above listed information, at a minimum. Commute.org offers a comprehensive transportation resources website free of charge that provides much of the above information.

Develop a regular schedule for newsletters and social media posts and promote relevant transportation information regularly.

Estimated timeframe	Pre-occupancy, property management (TDM Coordinator) to maintain webpage and newsletter/social media calendar as well as managing all transportation-related information to residents.
Estimated cost	\$0
Responsible party	Property Management
Estimated daily VMT reduced	2 to 5
Percent of daily vehicle trips reduced	0%

Bike Education/ Workshops

Encouraging bike ridership is one of the most effective ways of reducing short range trips by car. About 59.4% of vehicle trips in the United States were less than six miles in 2017.¹ The property could partner with local bike advocacy groups, bike shops or Commute.org to host bike safety workshops to educate residents on the basics of biking and share educational resources such as maps of nearby bike amenities (such as BikeLink lockers at train stations).

Implementation Guidelines:

Partner with Commute.org or a local bike advocacy organization to organize a bicycle safety training webinar or workshop annually. Commute.org offers free bike training workshops to employers and residential properties within San Mateo County.

Promote the workshop or webinar along with additional resources on the property's dedicated website, resident newsletter, and social media. Some additional resources to share with residents include:

- Bike Safety and Rules of the Road
- Family Biking - How to Bike Safely with Adults and Kids of Any Age
- Biking Maps and Trails

Estimated timeframe	75% occupancy, annually
Estimated cost	\$0
Responsible party	Property management to coordinate
Estimated daily VMT reduced	0 to 4
Percent of daily vehicle trips reduced	0 to 0.5% for every four individuals who participate in a workshop and will increase further with additional participants

¹ As per data collected from Office of Energy Efficiency and renewable Energy 2017.

<https://www.energy.gov/eere/vehicles/articles/fotw-1042-august-13-2018-2017-nearly-60-all-vehicle-trips-were-less-six-miles#:~:text=Data%20collected%20on%20one%2Dway,distance%20categories%20about%205%25%20each.>

4 Optional TDM Strategies

In addition to the project TDM measures, the following strategies would help to support further trip reductions. They are offered as optional recommendations as they are measures that will require additional financial investments. These strategies have not been included in the calculations showing vehicle trips and VMT reduced in Section 5.

Parking Cash Out

Access to free parking often dramatically reduces the cost of car ownership. Providing a Parking Cash Out benefit means that those who choose to forgo their free assigned parking spot will earn a tangible benefit for doing so in addition to saving on the costs associated with vehicle ownership. By separating the cost of renting an apartment from the cost of the parking spot, the property will encourage and reward sustainable travel.

A potential concern may be that residents who participate in Parking Cash Out may abuse the benefit and park their vehicle off-site, creating a parking spillover effect for adjacent streets and parking facilities. To help prevent this, the Parking Cash Out agreement between the property and participating resident should include a clause that prohibits participants from parking off-site. Additional mitigation may come from the City's [Residential Parking Permit Program](#) (RPPP), which prevents residents at multi-family dwellings with decoupled parking from obtaining permits and parking on-street beyond the posted time restriction. As the [Serra High School RPPP zone](#) is located adjacent to the project site, residents would be ineligible for permits and not allowed to park long-term on most nearby neighborhood streets to the southwest.

Implementation guidelines:

Allow households to give up access to free parking and offer a monthly incentive in exchange.

Estimated timeframe	Pre-occupancy (during the drafting of lease agreements), and ongoing.
Estimated cost	\$100/parking spot/month (\$100 is based on the cost of a monthly parking permit at City owned Central Garage)
Responsible party	Property Management
Estimated daily VMT reduced	30 to 67
Percent of daily vehicle trips reduced	1% to 2.4% for every three parking spots cashed out and will increase with additional cash outs

Shared Vehicle Credits or Subsidies

The developer could partner with an existing carshare company such as Zipcar or a transportation network company (TNC) like Lyft or Uber to provide those who do not own a vehicle the ability to use a car when needed. An incentive that provides occasional access to a vehicle, coupled with parking

incentives, can enhance the effect of these measures and encourage households to forgo vehicle ownership (studies show increased car access decreases use of other modes such as transit)².

Implementation Guidelines:

Partner with a shared vehicle provider such as Zipcar, Lyft, or Uber to provide residents access to a car when needed. The benefit could be made available to all residents or only to those who do not have access to a parking space. Each participating household could be provided with \$50 to \$100 in credits annually.

Estimated timeframe	Ongoing
Estimated cost	\$300 to \$2,500 (depending on number of participants)
Responsible party	Property Management
Estimated daily VMT reduced	1 to 2
Percent of daily vehicle trips reduced	0% to 1% with six participants and can increase with the number of participants

Dynamic Carpooling Subsidy

Ridesharing companies like Waze Carpool and Scoop connect commuters going the same way through an app-based model. The property can partner with Waze and/or Scoop to offer subsidies to residents who choose to carpool. Waze Carpool and Scoop are the two official carpooling services that Commute.org partners with for San Mateo County and as such have a large pool of potential carpool partners. Working with these existing services will save the TDM Coordinator from creating a new rideshare database for the property which could become limited considering the small number of residents.

Implementation Guidelines:

Offer and promote a daily or monthly subsidy to those who choose to utilize Waze Carpool or Scoop for their work commute. This can be done as a reimbursement or applied directly at the time of booking. For example, those who carpool to work can receive a \$2 to \$5 subsidy toward the cost of their ride per day or a \$100 per month reward for carpooling a minimum of 15 days in a month.

Estimated timeframe	Ongoing
Estimated cost	\$2,000 to \$10,000 per year depending on policy set and number of participants
Responsible party	Property Management
Estimated daily VMT reduced	10 to 50
Percent of daily vehicle trips reduced	0.5% to 1.35% with every nine participants in the carpool program and will increase with each additional carpooler

² Jordan, S. (May 2019). Ridership Study Revisited UCLA ITS Scholars 2018 Report on Falling Transit Ridership Gets a Second Look. Retrieved from <https://caltransit.org/news-publications/publications/transit-california/transit-california-archives/2019-editions/may/ridership-study-revisited/>

Bike Share

Providing shared bikes to tenants is an excellent way to further encourage bike ridership. Bike trips could easily replace short trips and local errands under three miles. Use of e-bikes can increase the bike-shed even further, to around seven miles.

Implementation Guidelines:

Offer San Mateo City Bikeshare memberships to residents if/when a vendor becomes available. Alternatively, if public bike share is not available, purchase four or more bicycles to create a property bike share. While a property based bike share is easy to implement and adjust over time, the following factors should be considered at the outset to ensure the program meets resident needs and is widely used.

- Choose at least one e-bike as part of the fleet
- Choose at least one cargo or cargo e-bike for the fleet so that residents can transport children or make grocery store trips
- Choose bikes with easily adjustable seat height and wide seat height range to allow use by riders of different sizes
- Purchase a bike trailer so residents can transport children or groceries
- Keep the bikes well maintained and clean regularly. The property could partner with local bike shops to do on-site maintenance or tune-ups twice a year.
- Place the bikes in a visible easy to access location so that using the bikes is convenient for the residents
- A simple check out system will make using the bikes more convenient. The bikes can be offered on a first come, first served basis where the residents are required to check out a key to the bike lock from the front desk. The TDM Coordinator can choose to create a more complex bike checkout and/or reservation system if that makes more sense for the property, or invest in technology-based smart locks that only open for specific people or those who have access to a frequently updated code.

Estimated timeframe	Ongoing
Estimated cost	\$10,000 to \$15,000 depending on cost and number of bikes, ongoing maintenance. Administrative costs will vary based on program structure
Responsible party	Property management to coordinate
Estimated daily VMT reduced	8 to 16
Percent of daily vehicle trips reduced	1% to 1.8% for every six people who use the shared bikes for short trips and will increase with additional bikes and users and as bike infrastructure in the area improves

5 Impacts of Project TDM Measures

If implemented correctly and consistently, the TDM program outlined in Section 3 is forecasted to result in a daily reduction of over 100 vehicle miles traveled (VMT), which would lead to a reduction in over 40 kilograms of carbon dioxide every day.

VMT Reduction Calculations

Estimated VMT reduction calculations were made using the TDM Return on Investment (ROI) Calculator, a tool owned by Mobility Lab and developed by university and governmental partners. The ROI calculator helps practitioners and policy makers understand the benefits of their investment in TDM strategies and programs by calculating estimated vehicle trips, VMT, hours of congestion delay, and emissions reduced. More information about the ROI Calculator and assumptions made to calculate estimated impacts are included in Appendix A.

Program Impacts

TDM Program for 1919 O'Farrell Street

Table 7 outlines the total estimated VMT and congestion hours reduced with the recommended TDM program for the project site.

Table 7. Project TDM Measures Impact Overview

Strategy	Annual VMT Reduced		Annual Vehicle Trips Reduced		Annual Congestion Reduced (hours of delay)		Carbon Dioxide Reduced (kg)	
	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.
1919 O'Farrell Recommended TDM Program	29,393	36,062	1,482	1,976	3,705	4,693	10,127	12,350

Note: The annual values are derived from multiplying the daily values outputs from the TDM ROI Calculator by 247, the average number of commute days per year with vacation days factored in.

Individual Strategies

Table 8 outlines the individual program components and estimated annual VMT reduction ranges for each. This is presented in order to provide an understanding of which strategies are the most impactful. However, whenever possible, program impacts should be measured and estimated holistically to avoid 'double counting' strategies that overlap. This is demonstrated in the comparison between Tables 7 and 8, where the cumulative impacts of the entire program are less than if the expected impacts of each individual strategy were to be added together.

Table 8. Individual Impacts of Project TDM Measures

Strategy	Annual VMT Reduced		Annual Vehicle Trips Reduced		Annual Congestion Reduced (hours of delay)		Carbon Dioxide Reduced (kg)	
	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.
TDM Coordinator	2,717	5,187	247	247	494	741	988	1,729
Institutionalizing TDM	0	247	0	0	0	0	0	0
New Resident Packets	28,158	31,369	1,482	1,729	3,705	4,199	9,633	10,621
Wayfinding Signage	247	247	0	0	0	0	0	0
TDM Communications (Website, Newsletter, Social Media)	494	1,235	0	0	0	0	247	494
Bike Education/ Workshops	741	1,729	0	247	0	0	247	494

6 Monitoring

Regular monitoring will help the project site track the impact of their TDM programs as well as provide a regular schedule for evaluating programming and identifying gaps and opportunities. The results will help the apartment building adjust programs to better meet the needs of their residents.

Annual Survey

The City of San Mateo requires an annual letter to the Public Works Director or designee that outlines the TDM measures implemented and information from a mode split survey.

To comply with City requirements, the TDM Coordinator will conduct an annual resident survey to understand resident commute patterns and the modes by which they commute. During the first year of occupancy, an initial survey should be conducted to establish a baseline to which future surveys will be compared.

The baseline survey and the subsequent annual surveys should ask questions to understand how residents travel for different types of trips and understand barriers to sustainable travel. To gain an insight into the resident's travel characteristics and attitudes, the survey should identify the following key topics:

- Mode of travel by trip purpose (work, school, leisure, etc.)
- Work location
- Business travel requirements, if applicable
- Daycare or school pick-up/drop-off location, if applicable
- Flexible working arrangements, if applicable
- Improvements to the main mode of travel
- Current barriers to walking/biking
- Ideas for how the property could encourage walking, biking, carpooling and transit
- Car ownership
- Residents' level of awareness of the property's TDM amenities
- Feedback on amenities and services currently available to the residents
- Other services or amenities that are not currently offered which would encourage residents to try a different mode of travel

The survey results allow the property to not only track program progress but also identify ways to adjust the program and further shift travel behavior towards more sustainable modes (transit, bike, walk and carpool) over time. The TDM Coordinator could use the data to understand which amenities are popular and should remain, which are not effective and should be adjusted, and identify additional measures to implement in their place.

Appendices

A TDM ROI Calculator

The Transportation Demand Management (TDM) Return on Investment-(ROI) Calculator is a tool owned by Mobility Lab, an Arlington County, Virginia funded transportation behavior and policy research center. It was developed in partnership with university and governmental partners, with funding from the Federal Highway Administration, to provide TDM program staff, transportation planners, and others involved in implementing TDM services a quantifiable way to estimate the ROI for TDM services.

According to the TDM ROI Calculator User Manual, the model calculates impacts for individual TDM services then combines the individual impacts, with discounts to account for overlap between services, to determine the cumulative impact of all services.³

The calculator performs the following functions:

- Estimates TDM travel impacts, defined as reductions in commute vehicle trips and vehicle miles travelled (VMT), from a user-defined package of TDM services
- Converts vehicle trip and VMT reductions into societal benefits, such as reduction in hours of travel time delay and gallons of gasoline saved
- Calculates the societal cost savings from each benefit and the overall cost saving from all benefits combined
- Compares the societal cost saving to the TDM program "investment" cost to estimate ROI

As most TDM programs do not have detailed VMT and trip reduction data, the ROI Calculator instead asks for user participation numbers and program costs as the inputs for its calculations. The model then uses four calculation factors derived from TDM service user surveys along with pre-set regional inputs and national environmental data to estimate the number of participants who will shift behavior and the number of daily vehicle trips, VMT and hours of congestion that their behavior shift will reduce. If more detailed regional and national data are known, they can be input to override the preset data used for calculation.

The inputs used for calculating the VMT and vehicle trip reductions for the 1919 O'Farrell TDM Plan are outlined below so that the results can be duplicated with ease.

³ Mobility Lab.(2019).TDM ROI Calculator User Manual Retrieved from <https://mobilitylab.org/calculators/>

A1 Regional Inputs

At the outset in Section A (Your Region, Service Area Type and Transit Availability), the TDM ROI Calculator asks users to make a series of selections to determine geographic and transit characteristics of the area being examined. The options selected for the 1919 O'Farrell TDM Plan are displayed in **Table A.1** as follows:

Table A.1: Selections made for region, service area type and transit availability

Questions in the ROI Calculator	Option Selected for the TDM Plan
Metropolitan Region	San Francisco-Oakland-Hayward, CA
Primary land use density and development pattern	Moderate density, urban or small city/town
Primary focus of TDM program outreach	Primarily to commuters at residential areas
Percentage of commuters within 1/2 mi of bus/train stop in the service area	76% to 100% of commuters are within 1/2 mile of a bus or train stop
Average public transit frequency in the service area in the morning peak period (Select ONLY ONE option)	Low- Average rush hour frequency for most routes is 31 minutes or more OR there is no transit service

With the above inputs selected, the model determines the classifications for the project site as follows in **Table A.2**:

Table A.2: Project site TDM service area and transit availability classifications

Your TDM Service Area classification is:	Suburban/Small city
Your Transit Availability classification is:	Moderate Transit

A2 Regional Travel, Environmental and Cost Benefit Factors

The final section of the ROI Calculator (Section F - Additional Regional/Service Area Data Environmental Inputs) shows the default numbers used for regional travel, environmental and cost benefit factors. Users have the option to override these defaults by inputting values into the "User Defined" cells if specific local factors are known. Table A.3 shows the defaults assumed by the model and indicates if the defaults were overridden, and which values were used. The inputs defined in Table A.3 remained the same for all calculations for the 1919 O'Farrell TDM Plan.

Table A.3: Travel, vehicle pollutant emission, and benefit cost factor default and user defined values

Regional Travel Factors	Regional Default	User Defined
Average home-to-work commute miles for the region (one-way distance)	9.6	13.9 ¹
Percentage of regional commuters who drive alone to work OR percentage of weekly commute trips made by driving alone	63.2%	62% ²
Percentage of regional commuters who ride public transit to work OR percentage of weekly commute trips made by transit	17.6%	17% ²
Regional Vehicle Pollutant Emission Factors	National Default	User Defined
Oxides of Nitrogen (NOx) emission rate in grams per mile of travel	0.445	0.171 ⁴
Volatile Organic Compounds (VOC) emission rate in grams per mile of travel	0.075	0.035 ⁴
Greenhouse gas (Carbon Dioxide Equivalent) emission rate in grams per mile of travel	387.460	342.000 ⁴
Regional Benefit Cost Factors	Regional Default	User Defined
Median average wage rate for commuters in the service area or metropolitan region	\$24.90	\$49.71 ¹
Estimated average annualized cost to build/maintain one lane-mile of major roadway (combination of Interstate and limited access roadway)	\$165,000	N/A
Average pump price per gallon for regular unleaded gasoline	\$3.36	\$3.97 ³

¹ Source: San Mateo Economic Development Association's Labor Supply and Commute Patterns in San Mateo County Report, 2012.

² Source: ACS 2018 5-year for the Census Tract 6074, Census.gov

³ Source: Gas Price Watch

⁴ Source: California Air Resources Board Emissions Factors (EMFAC) database

Assumptions

Resident Characteristics Assumptions

To estimate potential participation numbers, some assumptions about the number of individuals living at the property at 100% occupancy were made. These assumptions begin with the knowledge that there will be 49 units for rent. The assumptions and the basis for each are outlined in Table A.4.

Table A.4: 1919 O'Farrell St. resident characteristics assumptions

Category	Assumption and Basis	Number
Total number of people residing at the property at full occupancy	ACS data indicates that there are 2.3 persons per household in the census tract 6074 and there will be 49 homes on-site.	113
Children under 18	ACS data shows that 21% of the census tract's population is children	24
Adults	Subtracting children from the total population	89
Number of workers or commuters	ACS data shows that 23% of people residing in the census tract are not in the labor force	69

ROI Calculator Participation and Calculation Factors Assumptions

In order to use the ROI calculator to calculate estimated impacts for the 1919 O'Farrell St. project, assumptions were made to estimate participation rate for each strategy. Additionally, if a strategy was not outlined as a direct input in the model, assumptions were made to estimate the calculation factors associated with it. Table A.5 outlines those assumptions.

Table A.5: Participation and calculation factor assumptions used for TDM measures

Strategy	ROI Calc Input	Participation Assumption (per year)	Basis for Participation Assumption	Placement rate (%) Assumption	Vehicle Trip Reduction Factor Assumption	One-Way Commute Distance Assumption	Drive-Alone Access % Assumption
TDM Coordinator	Comprehensive commute assistance	4	Organize all TDM activities on the property and assist 5% of residents with questions about transportation including one-on-one assistance when asked and promoting sustainable transportation options	40% Pre-set in model	0.8 Pre-set in model	19.8 miles Pre-set in model	40% Pre-set in model
Institutionalizing TDM at the Property	Targeted residential marketing	89	All adults residing at the property would see and sign the lease	1% Pre-set in model	0.5 Pre-set in model	19.8 miles Pre-set in model	40% Pre-set in model
New Resident Packet	Alternative mode "try it" incentive	17	Each household on the property would receive a packet. At a minimum, the transit users (17%) would take advantage of the cards and an additional 5% (4) will "try it" based on the transit mode split and ease of accessing the incentive	50% Pre-set in model	1 Pre-set in model	19.8 miles Pre-set in model	40% Pre-set in model
Wayfinding to outside building (signs/stickers)	Targeted residential marketing	89	The decals would be visible to all residents	1% Pre-set in model	0.5 Pre-set in model	19.8 miles Pre-set in model	40% Pre-set in model
TDM Communications	Commute program website	22	10% of adults would access webpage for transportation info and incentives and approximately 25% would see the newsletter and social media communications, especially if they are included with communications regarding other property updates.	35% Pre-set in model	0.3 Pre-set in model	19.8 miles Pre-set in model	40% Pre-set in model
Bike Education and Promotion	Custom	4	Approximately 4 individuals will attend the workshop. That number is likely to increase over time as bike infrastructure improves. According to NACTO, approximately 40 of the 89 adults at the property would be willing to ride a bike on streets with a protected bike lane.	20% Pre-set in model (for commute challenges/ events)	1.2 Used the same pre-set for a bike commute program	10 miles Average doable biking distance according to Mobility Lab ^{A1}	40% Pre-set in model

^{A1} McLeish, Mike. (February 27, 2017). How far is too far to bike to work? Retrieved from <https://mobilitylab.org/2017/02/27/how-far-bike-work/>

^{A2} National Association of City Transportation Organizers. (July 20, 2016). High-Quality Bike Facilities Increase Ridership and Make Biking Safer. Retrieved from <https://nacto.org/2016/07/20/high-quality-bike-facilities-increase-ridership-make-biking-safer/>

^{A3} Eco-Counter. (January 2021). Bike count trends by North American region for December 2020 (compared to Dec 2019). Retrieved from <https://www.eco-compteur.com/en/cycling-data-tracker/>

B 1919 O'Farrell Street Site Assessment

To Somer Smith, City of San Mateo
Cc
From Puja Thomas-Patel, Steer
Date January 18, 2020
Project 1919 O'Farrell Street TDM Plan

Memo

Project No. 23946201

1919 O'Farrell Street Site Assessment Memo



Source: DNA Design and Architecture

The City of San Mateo has commissioned Steer to develop a Transportation Demand Management (TDM) Plan for the 1919 O'Farrell Street Project to reduce the ceiling of potential congestion and trips generated by the project. The project is a planned residential rental property owned by Sierra Investments and being developed by DNA Design and Architecture (referred to as "the developer" or as "DNA" throughout this document).

The TDM Plan development process begins with a thorough assessment of the site, including existing and planned conditions. A combination of interviews with local TDM experts, desktop-based research and analyses, review of available site plans and renderings, and study of planned developments was utilized in our understanding of the site conditions. Insight from the City and developer team has also been incorporated into this document.

This document details the following aspects of the site and project:

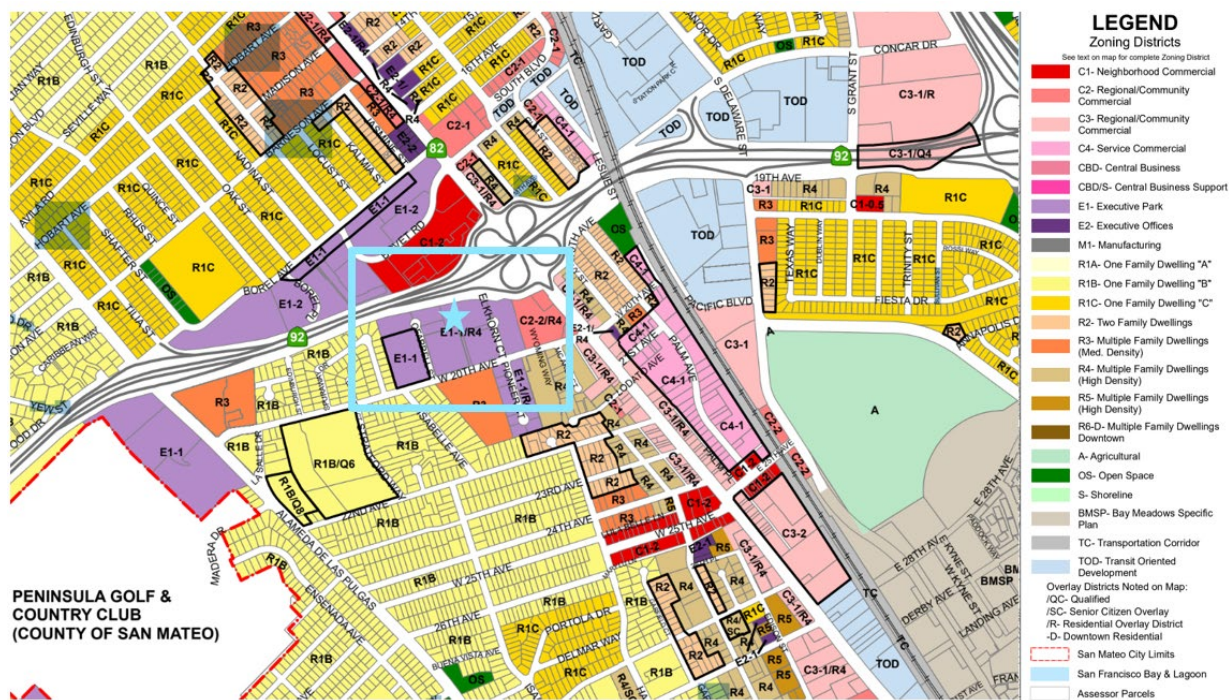
- Project Description
- Site Geography and Road Network
- Pedestrian and Bicycle Infrastructure
- Transit Services
- Nearby Attractions
- Available TDM Services
- Travel Trends
- Next Steps

Project Description

The project site is located at 1919 O'Farrell Street in the Beresford Park neighborhood in the City of San Mateo within the 94403 ZIP code. The project involves the demolition of an existing one-story office building to construct a four-story, 49-unit multi-family apartment community with subterranean parking. It is expected that the project will break ground in 2022.

The site is zoned for Executive Park/High Density Multi-Family (E1-1/R4) uses. As shown in Figure 1, the area immediately surrounding the project site, designated with a blue box, is primarily zoned Executive Park/High Density Multi-Family, which allows for mixed use development. The neighboring parcels south of the Highway 92 are zoned the same as the project site, with the exception of City Hall being zoned as Executive Park (E1) only. The area to the southwest is primarily zoned Single Family (One Family Dwelling, R1B), while the areas to the southeast are predominantly zoned Multi-Family (R4). The parcels just east of the Executive Office/High-Density Multi-Family zone abutting El Camino Real are designated Regional/Community Commercial (C2).

Figure 1. City of San Mateo Land Use Designations



Source: City of San Mateo website

The project is located on a 0.71-acre parcel which allows a base density of 36 units. Of the 36 units, four are dedicated to very low-income households. Therefore, taking advantage of the State Density Bonus, the four very low-income units make up 11% of the base density, providing the development with a 35% density bonus and the ability to construct 13 additional units. Thus, there will be a total of 49 units on the property. Each unit on the project site will be 746 to 1,556 square feet in size. Table 1 provides additional details regarding the proposed project compared to the parcel's current use.

Table 1: Proposed Project Attributes

	Current	Proposed
Description	1-story office building	4-story multi-family residential building
Square Footage	3,967 sq. ft. of office space	55,541 sq. ft. of living space
Zoning Designation	Executive Office/High Density Multi-Family	Executive Office/High Density Multi-Family

The project proposes a total of 64 subterranean vehicle parking spaces on-site, which is 30 spaces more than required. Additionally, the project will also provide infrastructure for long and short-term bicycle parking for residents and guests, with room for 58 bicycles across the property. The nearest Caltrain station, the Hayward Park Station, is located within a 0.8-mile walk of the site.

The residential community will be managed by a team of property managers once units are available for rent.

Geography and Road Network

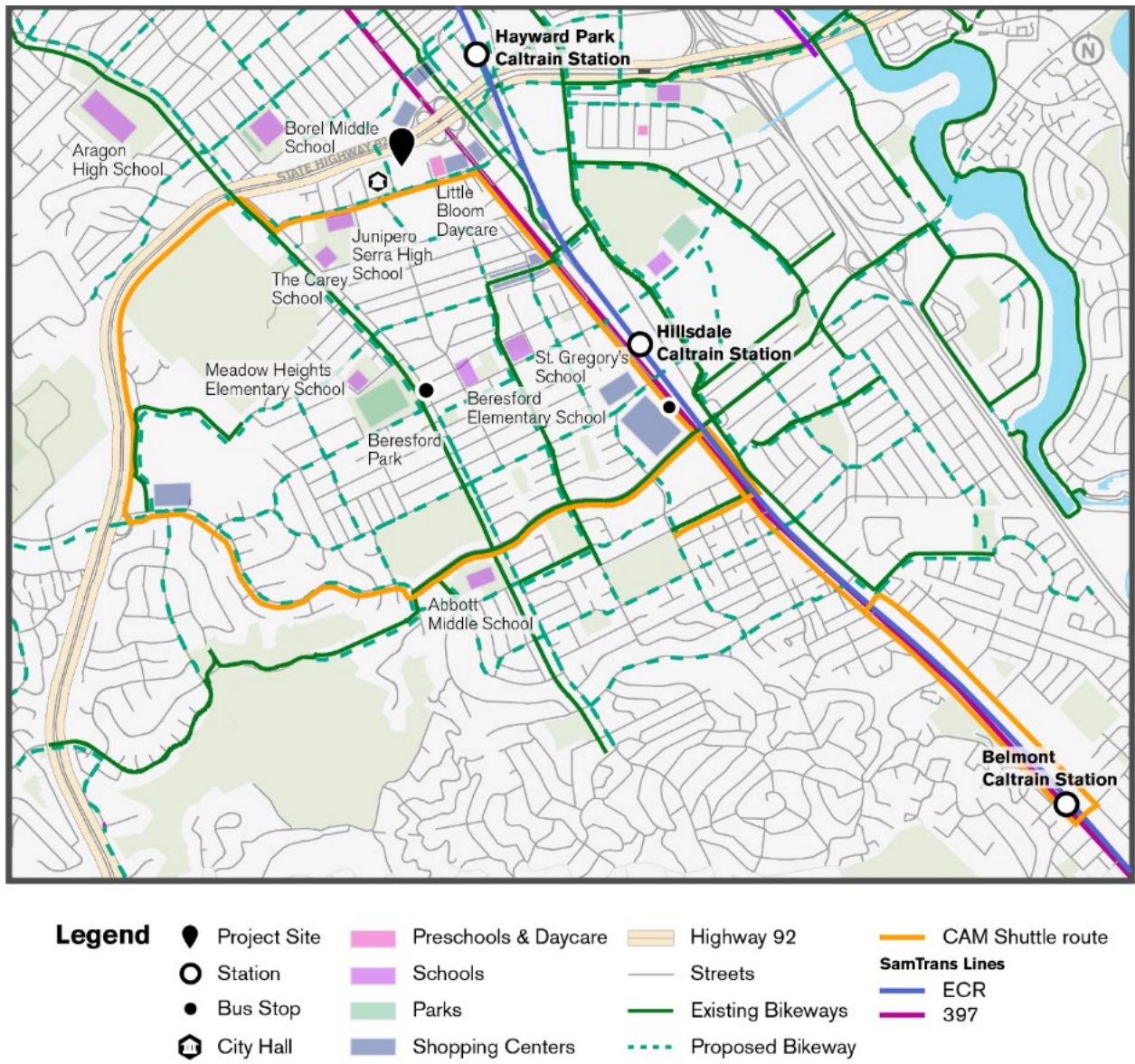
The project site is located at the end of a cul-de-sac at level grade as seen in Figure 2, which provides a map view. The site is surrounded by:

- Highway 92 to the north
- The Park 20 Apartments and SR-82 (El Camino Real)-adjacent shopping center to the east
- A single-story office building and Corte Bella condos to the south
- A three-story office building, parking garage, and San Mateo City Hall to the west
- Junipero Serra High School to the southwest

The site has quick access to Downtown San Mateo, which is less than two miles away:

- 7 mins by car
- 9 mins by bike
- 7 mins by e-bike
- 18 mins by transit (ECR Bus)
- 28 mins by walking

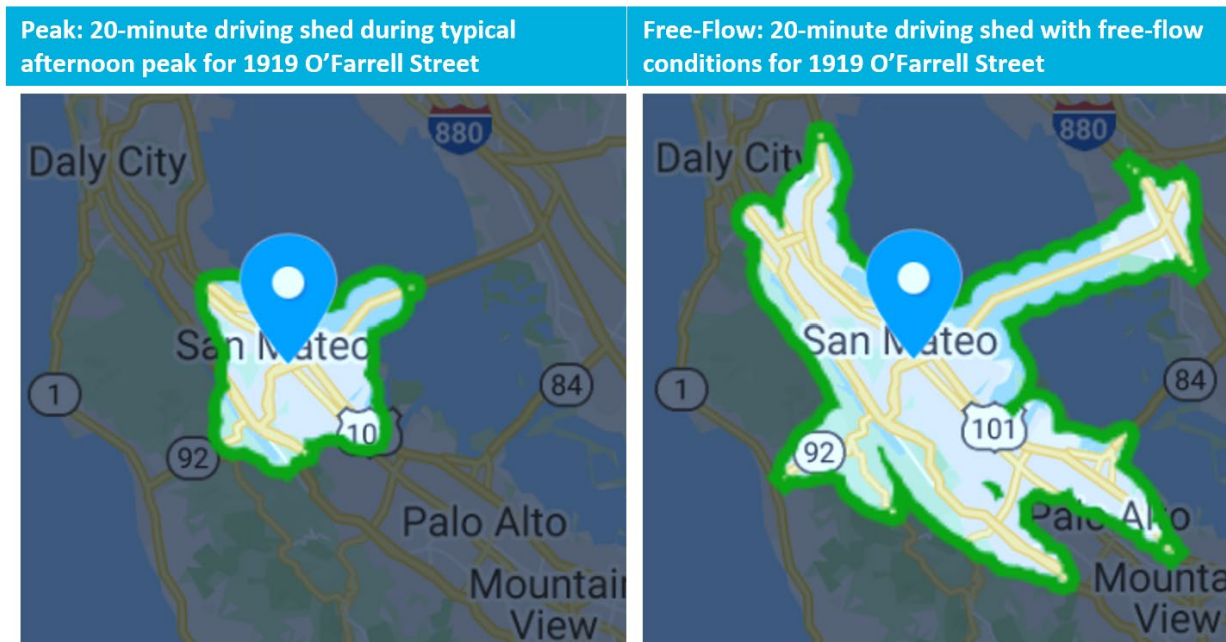
Figure 2. A view of the project site



O'Farrell Street connects to West 20th Avenue, which in turn connects the project site to South El Camino Real to the East, Alameda de las Pulgas to the West and Highway 92 to the North (via El Camino Real).

From the site, drivers can reach as far as Hayward, Palo Alto and Half Moon Bay within 20 minutes. During the peak hours of 4 to 6 PM, driver access is limited significantly. The peak hour estimates provided in Figure 3 are from 2019 (pre-COVID).

Figure 3. 20 Minute Car Shed for 1919 O'Farrell Street



Source: WalkScore.com

The intersection of El Camino Real and 20th Avenue, the first major intersection coming out of the 1919 O'Farrell Street development, sees moderate congestion throughout the day with a 'C' Level of Service or lower during both the AM and PM rush hours. Table 2 demonstrates that congestion may be a concern for the area.

Table 2. Levels of service for the El Camino Real and 20th Ave. intersection

	Signalized Intersection Peak-Hour Levels of Service			
	Year 2016 Conditions			
	AM Peak Hour		PM Peak Hour	
	<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
El Camino Real and 20th Avenue	34.5	C	45.9	D

Sources: San Mateo Existing Conditions Circulation Report (October 2018)

Pedestrian and Bicycle Infrastructure

The site's topography, street network, and proximity to commercial centers are conducive to pedestrian and bicycle access. The walkability website Walkscore.com gives the site an 82/100 for walking, which they classify as "very walkable – most errands can be accomplished on foot." The walkshed for the project site is seen in Figure 4.

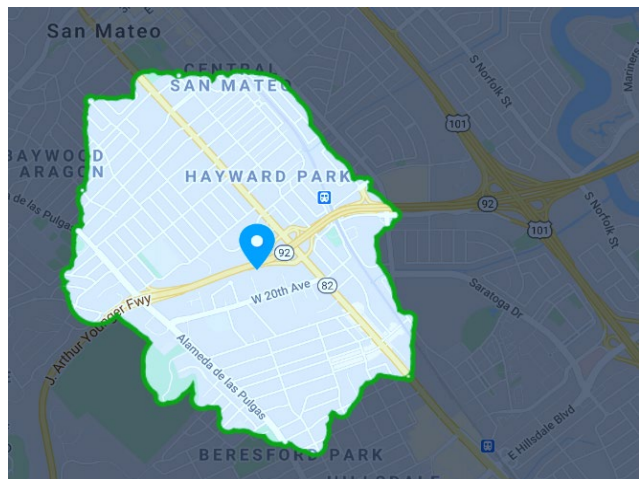
There are two Class III Bicycle Routes connecting with 20th Avenue near the site. The first of these is to the west of the project site, running along Alameda de las Pulgas from Crystal Springs Road through the southern limits of the City (with a small portion of Class II lanes located in the Hillsdale area to the south). The second route runs along Palm Avenue, to the east of the project site. Figure 5 shows the bicycle routes of the surrounding area, with the immediate project area denoted by the purple box.

The bicycle route on Alameda de las Pulgas provides access to several schools and parks, and it eventually connects to the Hillsdale Shopping Center and Hillsdale Caltrain Station via Class II and III bike facilities along Hillsdale Boulevard. To access Downtown using Palm Avenue, bicyclists must cross El Camino Real and ride approximately half a mile before reaching a bike lane north of South Boulevard. The Palm Avenue route offers no protected bikeways to connect between the site and the Hayward Park Caltrain Station.

Due to a mixture of traffic speed, volume, and presence of on-street vehicular parking, Alameda de las Pulgas, Palm Avenue, and 20th Avenue are all rated as 'high-stress' streets by the April 2020 San Mateo Bicycle Master Plan. 'High-stress' streets are defined as roads which would be uncomfortable or unappealing to all cyclists other than those with high levels of experience and risk tolerance or those traveling by e-bike. Figure 6 shows the stress level of the surrounding area, with the immediate project area denoted by purple box.

In terms of nearby bicycle amenities, BikeLink operates multiple on-demand bike lockers located at nearby Caltrain Stations as well as the Hillsdale Shopping Center and its surrounding area. BikeLink allows bicyclists to securely store their bikes in lockers using a stored-value card that can be purchased online or at nearby vendors. There are four lockers at the nearest Caltrain Station (Hayward Park), 24 at the Downtown station, and 28 around the Hillsdale Shopping Center. Additionally, four free-to-use public bike repair stations are located within 1.5 miles of the project site. These stations are located at San Mateo City Hall, the San Mateo Main Library, Paddock Park, and the downtown San Mateo Caltrain station.

Figure 4. 20-minute pedestrian shed for 1919 O'Farrell Street



Source: WalkScore.com

Figure 5. Existing Bicycle Network

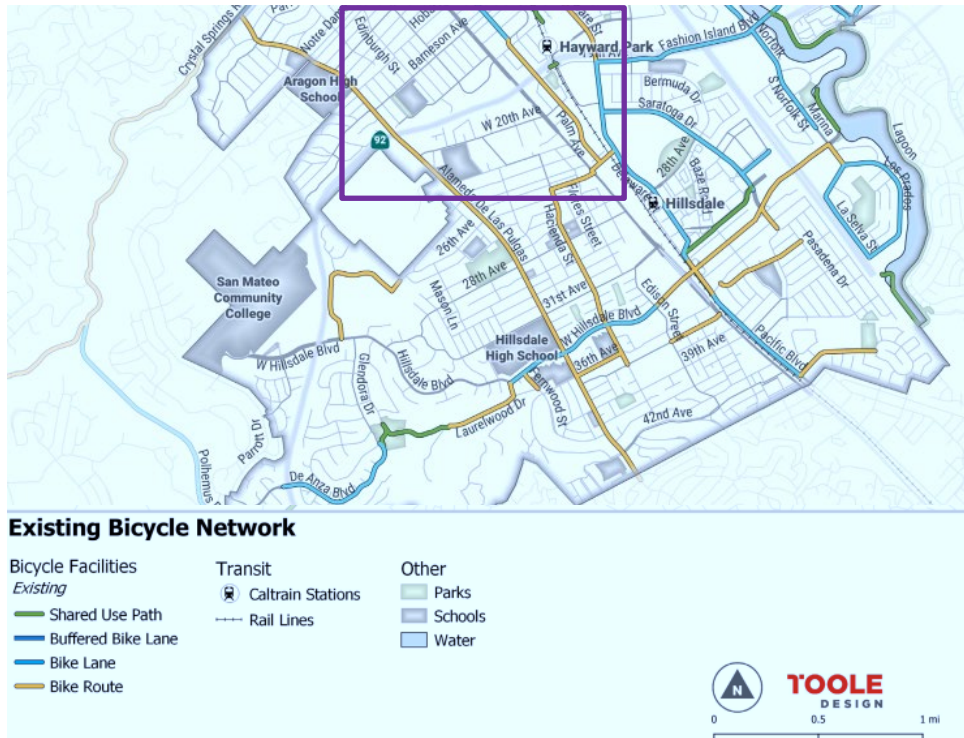
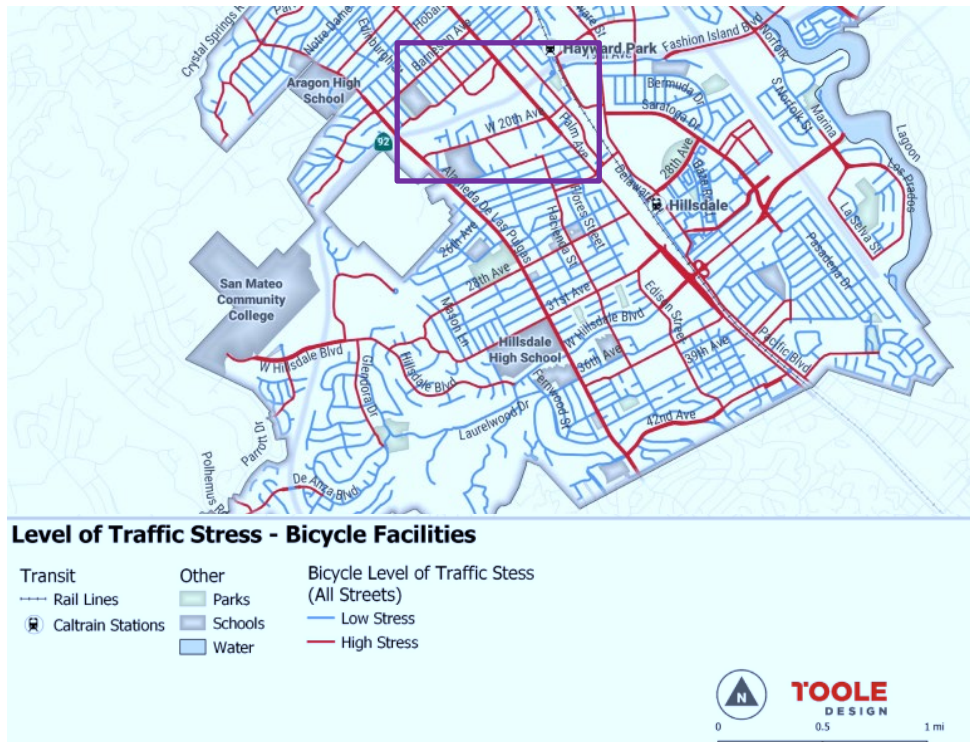


Figure 6. Level of Traffic Stress



Source: Toole Design Group (on behalf of City of San Mateo, Bicycle Master Plan 2020)

City of San Mateo Bicycle Master Plan

The 2020 Bicycle Master Plan was adopted by the City Council on April 6, 2020 and serves as a blueprint for expanding and improving the San Mateo bicycle and mobility network in the coming years. The Plan includes three high-priority recommendations relevant to the 1919 O'Farrell Street Project site:

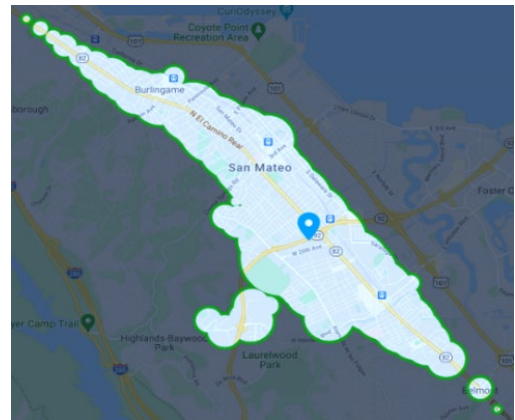
- 20th Avenue is slated for a Class II bike lane between Alameda de las Pulgas and El Camino Real and a Class III bike boulevard between El Camino Real and Palm Avenue.
- Palm Avenue is prioritized for an upgrade from an existing Class III bike route to Class II bike lane from South Boulevard to 25th Avenue.
- A Class III bike boulevard is proposed to stretch from 20th Avenue just south of the site along Isabelle Avenue, 22nd Avenue, and Hacienda Street to 39th Avenue.

Transit Services

The project site is located within a 0.8-mile walk of the Hayward Park Caltrain Station and is also served directly by the Campus Drive (CAM) Shuttle, which connects to the Hillsdale Caltrain station, providing access to north-south regional travel, as well as two San Mateo County Transit District (SamTrans) bus routes.

Walkscore.com gives the project site a Transit score of 44 / 100, which they classify as “some transit – a few nearby public transportation options.” This score is expected to improve with the re-opening of the Hillsdale Caltrain Station in Spring 2021, as this station will feature express Caltrain service not available at the Hayward Park Station. The 20-minute transit shed is fairly expansive along the north-south Caltrain route, as shown in Figure 7.

Figure 7. 20-minute Transit-shed for 1919 O'Farrell Street



Source: Walkscore.com

Campus Drive (CAM) Shuttle

The Campus Drive (CAM) Shuttle, which is operated by San Mateo County's Transportation Demand Management Agency Commute.org, connects the project site to the Hillsdale Caltrain station and the San Mateo Medical Center as shown in Figure 8. As seen in Table 3, the service is available Monday to Friday during commute hours and does not operate on holidays. The AM trips have been reduced from four per day to three, due to COVID-19.

Table 3. CAM Shuttle Accessibility

Category	CAM Shuttle Attributes
Frequency	3 trips in the AM and 5 trips in the PM serving the site, every 45-60 minutes
Closest Stop	330 W 20 th Avenue (City Hall)
Distance to Closest Stop	Less than ¼ mile
Cost	Free and open to all

Caltrain

Caltrain connects the project site to San Francisco to the North as well as San Jose and Gilroy to the South. As shown in Figure 9, the project site is near both the Hayward Park and Hillsdale stations, which can be accessed via bike, walk, transit and car.

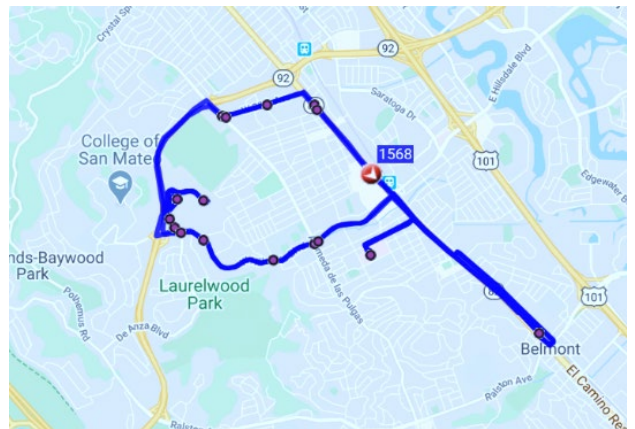
Although Hillsdale Station is currently closed for construction, a new station opening in 2021 will be equipped with a Park and Ride lot. Characteristics of each station are included in Table 4.

Table 4. Caltrain Station Accessibility

Category	Hayward Park Station	New Hillsdale Station (post-reopening)
Frequency	Hourly service during peak	Every 15 minutes during peak
Walking Distance to Station	0.8 miles	1.0 miles
Access	Park and ride lot, bike racks, and San Mateo BikeLink	Park and ride lot, bike racks, and CAM Shuttle*
Cost	\$3.20 - \$10+ depending on distance	\$3.20 - \$10+ depending on distance

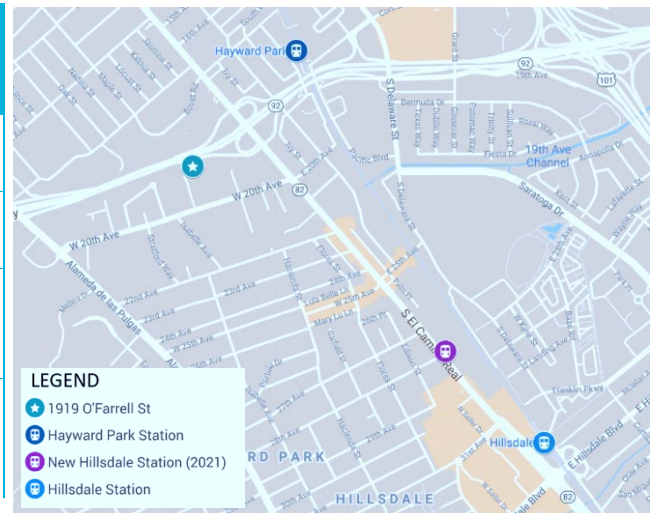
*The CAM Shuttle is currently detoured to Belmont Station due to the temporary closure of Hillsdale Station during construction

Figure 8. CAM shuttle route



Source: Commute.org

Figure 9. Caltrain stations near the project site



Source: Google Maps

Bay Area Rapid Transit (BART)

The Millbrae BART station is accessible to the project site via car and transit as shown in Figure 10. BART connects the site to the wider Bay Area including San Francisco, East Bay, San Jose and Richmond. There are 1,200 parking spots available at the station for individuals and carpoolers who park and ride. The service is available Monday to Friday before 9 pm as described in Table 5.

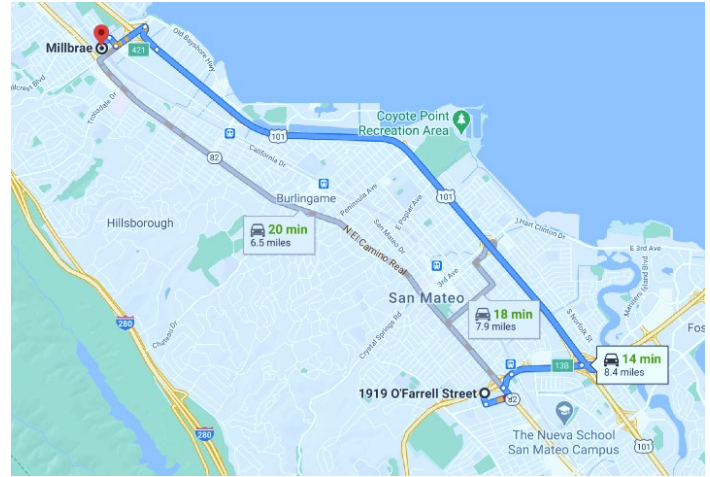
The station is also accessible by Caltrain although not as convenient as it would require two transfers. Additionally, the SamTrans ECR bus route is a direct connection to the Millbrae station.

Table 5. BART Station Accessibility

Category	BART Attributes
Frequency	30 minutes (M-F before 9 PM)
Closest Station	Millbrae
Distance to Closest Station	8.4 miles
Cost	\$4.25+ depending on distance*

* Refer to the BART Fare calculator for more info

Figure 10. Route to BART Station



Source: Google Maps

SamTrans

There are five SamTrans routes accessible to the project site within a 10-minute walk, which are described in Table 6. Additionally, routes 251/256 are located within one mile of the project site and connect Hillsdale to Foster City. Each SamTrans bus is equipped with bus bike racks that hold up to three bikes and trips cost \$2.25 in cash or via mobile app or \$2.05 if a Clipper card is being used.

Table 6. SamTrans Routes with stops within 0.5 miles of the project site

SamTrans Route #	Hours of Operation	Frequency	Closest Stop	Distance to Closest Stop	Route Details
ECR	Daily – 4 AM to midnight	15 minutes	El Camino Real and 20th	0.4 miles/ 8-minute walk	Connecting Daly City BART Station to Palo Alto Transit Center
250	Weekdays – 6 AM to 10 PM Weekends – 9 AM to 6 PM	30 minutes*	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	Connecting the College of San Mateo to downtown San Mateo
397	Daily – All night bus running between midnight and 6 AM	60 minutes	El Camino Real and 20th	0.4 miles / 8-minute walk	Connecting Palo Alto Transit Center to the Embarcadero
294	Daily – 6 AM to 9 PM	60 minutes	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	Connecting Hillsdale to Half Moon Bay
295	Weekdays – 6 AM to 5 PM	120 minutes	Alameda de las Pulgas & W. 20 th Avenue	0.5 miles / 10-minute walk	Connecting Redwood City to San Mateo.

**Effective January 17, 2021*

Nearby Destinations

There are several attractions in the project vicinity that residents may visit regularly. Some of these attractions are detailed below and will likely be considered in the development of the final TDM plan.

Shopping

There are five shopping destinations within one mile of the project site that offer a large variety of retail and dining options.

- A shopping center located at the northwestern corner of 20th Avenue and El Camino Real (0.4 miles away by foot) provides access to a Japanese grocery store, a fabric store, and two fast-casual restaurants.
- A similar shopping center on the northeastern corner of 20th Avenue and El Camino Real (0.5 miles away by foot) offers a diner and fast food.
- The Borel Square Shopping Center (0.7 miles away by foot) has a pharmacy, gym and additional fast-casual food options. There are also a number of stand-alone shopping options along El Camino Real and 20th Avenue.
- A shopping area surrounding the corner of 17th Avenue and Ivy Street, including a major grocery store, banks, and restaurants (0.8 miles away by foot).
- A large retail and restaurant district located along 25th Avenue between Hacienda Street and El Camino Real, including a post office and a seasonal farmers' market (0.8 miles away by foot).

Additionally, the Hillsdale Shopping Center is located at El Camino Real and 31st Avenue, approximately 1.5 miles away by foot. The center offers a large number of shopping options including a popular grocery store, department stores, numerous retail stores and a variety of eateries.

Schools and Child Care

About 20 percent of the population in the residential area (census tract) surrounding the project site have children under 18 years of age, suggesting that families will need to add school or childcare trips into their schedule. Since school drop offs and pickups can lead to significant traffic and congestion twice daily, we will explore synergies with existing Safe Routes to School (SRTS) programs and trip reduction strategies in the final TDM Plan.

Childcare Centers

There is one childcare center located within a six-minute walk of the project site.

- Little Bloom Early Child Development Center (0.2 miles away) is a short walk east on 20th Avenue.

Nearby Schools

There are over a dozen schools within two miles' travel of the project site. The closest are listed in Table 7.

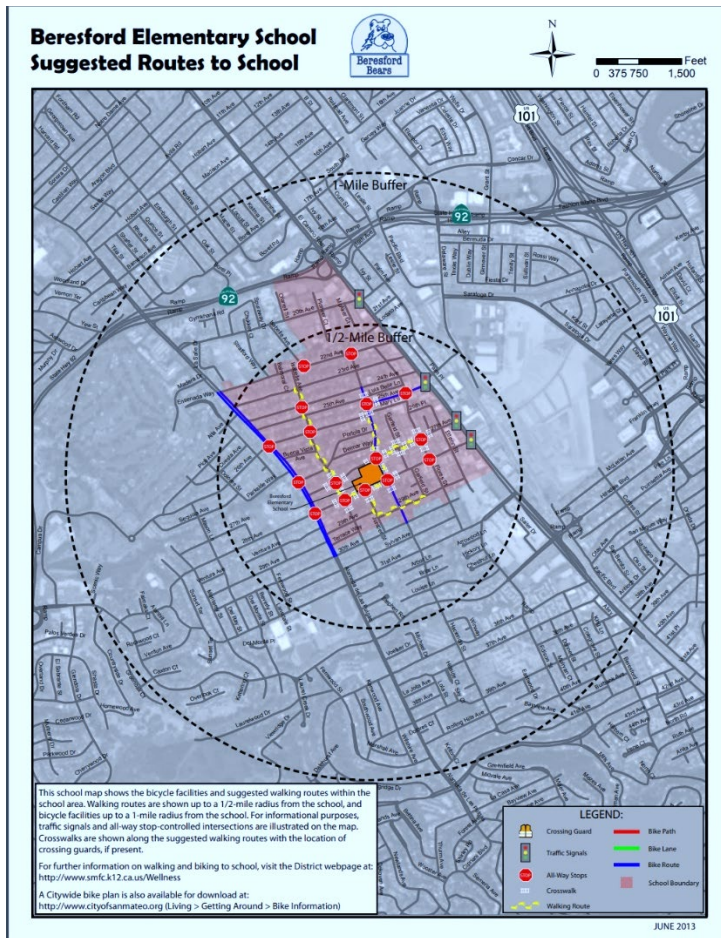
Table 7. Proximate School Distances

Nearby Schools	Travel distance in miles
Beresford Elementary School*	1.0
Abbott Middle School*	1.7
Aragon High School*	1.0
Junipero Serra High School	0.3
The Carey School	0.6
The Burkard School	0.8
Saint Gregory's Catholic School	0.9
Meadow Heights Elementary School	1.0
Borel Middle School	1.1
Centennial Montessori Elementary School	1.2
The Nueva School, San Mateo Campus	1.2
Baywood Elementary School	1.4
Fiesta Garden International School	1.4

*Assigned public schools for 1919 O'Farrell St.

The 1919 O'Farrell Street Project site is zoned for and is within walking and biking distance from Beresford Elementary School, which is included in the County's Safe Routes to School program. Safe Routes to School San Mateo County promotes biking and walking to school for children countywide. The program focuses on improving the health, well-being, and safety of children as well as reducing traffic congestion and emissions caused by school-related travel. The program is led by a network of implementors and volunteers, often parents and PTA members. Figure 11 shows the scope of this Safe Routes to School program within a half mile radius, including suggested walking and biking routes to Beresford Elementary.

Figure 11. Safe Routes to School map for Beresford Elementary School



Source: San Mateo County

College of San Mateo

The College of San Mateo is 2.5 miles away and within a 30-minute bike ride of the project site. However, topography may discourage bicycling to this destination, as there is significant elevation gain needed to reach the campus.

Parks

The project site is within one mile of two parks, Trinta Park and Beresford Park, and within one mile of another park currently under development, Borel Park.

- Trinta Park (0.8 miles away by foot) is located on the other side of El Camino Real and offers a baseball diamond, half basketball court, children's playground and restrooms.
- Beresford Park (1 mile away by foot) is south of the project site. It features tennis courts, three baseball diamonds, a playground structure, a skatepark, a full basketball court, a community garden, bocce courts, public restrooms, and picnic areas. It is also located directly adjacent to the Beresford Recreation Center, a community hub offering preschool activities and after-school care as well as youth and adult classes.
- Borel Park is on a site (0.9 miles away by foot) that is currently under construction as part of the Fire Station 25 relocation project. As part of this project, the City of San Mateo has committed to creating a 1.1-acre park adjacent to the new fire station.

Available TDM Services

Commute.org Incentives

Commute.org is San Mateo County's Transportation Demand Management Agency. Their resources are available to all residents and employees in the County. As such, the residents and employees of the project site will be able to take advantage of TDM resources curated for those commuting within the County and in the surrounding areas. The Commute.org website serves as a regional clearinghouse for all transportation and commuting-related information. They also provide the following services:

- **CAM Shuttle:** Commute.org manages the CAM Shuttle connecting the Hillsdale station to the project site on Campus Drive. It serves as a free first/last mile connector to Caltrain. There is currently one vehicle on the route that operates at a 45 to 60-minute frequency.
- **Try Transit Incentives:** Commute.org provides a free 'try transit' program that allows individuals to request free tickets for the transit option that works best for them.
- **Carpool Incentives:** Commuters who use Waze Carpool or Scoop are eligible to earn gift cards worth up to \$100.
- **Vanpool Incentives:** Drivers of a new vanpool can earn a \$500 reward, and vanpool riders can be reimbursed \$100/month of their costs for up to three months.
- **Bike Education:** Free bike safety workshops and bike marketing materials are available to residents and commuters. These are scheduled upon request and are available to employers and other sites, including residential properties, within San Mateo County. They can be 60, 75, or 90 minutes in length depending on what is ideal for the requesting party and include time for Q&A.
- **Bike Incentives:** Commute.org currently provides commuters who live or work in the County with incentives worth between \$25 to \$100 for biking to work. The program was active until December 2020 but Commute.org is likely to continue providing a bike incentive past December if funding is available.

E-Bike Rebate

An e-bike rebate was recently approved by Peninsula Clean Energy in partnership with Commute.org. The program will be available for three years and offers a rebate of up to 80% purchase price (\$800 cap) for those within 400% of the federal poverty limit.

Travel Trends

The travel trends and insights detailed in this section are based on data associated with the project's census tract (6074.00). Census tracts are similar to neighborhoods and established by the Census Bureau for the purpose of analyzing populations. Each census tract typically has 2,500 to 8,000 people.

Demographic Insights

The project site is located within census tract 6074.00, which has a population of 5,017 people. Those who live in this tract tend to be young families with children or never-married individuals who have high levels of education and household incomes. A majority, 59%, of the households in the census tract live in multi-unit buildings and 53% are renters. The demographic information in Table 8 and Table 9 is collected from Census and American Communities Survey (ACS) data and will provide insight into the residents' needs and behaviors.

Table 8. Demographic data for census tract 6074

Category	Characteristics	Share
Age	Under 18	21%
	18 to 64	62%
	Over 65	17%
Education	College degree or higher	62.2%
Home ownership	Residents rent the home they live in	53%
Household	Married couple families	59%
	Number of households	1,990
	Persons per household	2.4
	Median household income (35% with a household income above \$150,000)	\$100,500
Race	White alone	42.5%
	Asian alone	26.8%
	Hispanic or Latino (of any race)	23%
	Black or African American alone	1.1%
Languages spoken	Percentage of limited English-speaking households	9.1%

Source: ACS 2018 5-year, Census.gov

Table 9. Selected household characteristics by home ownership for census tract 6074

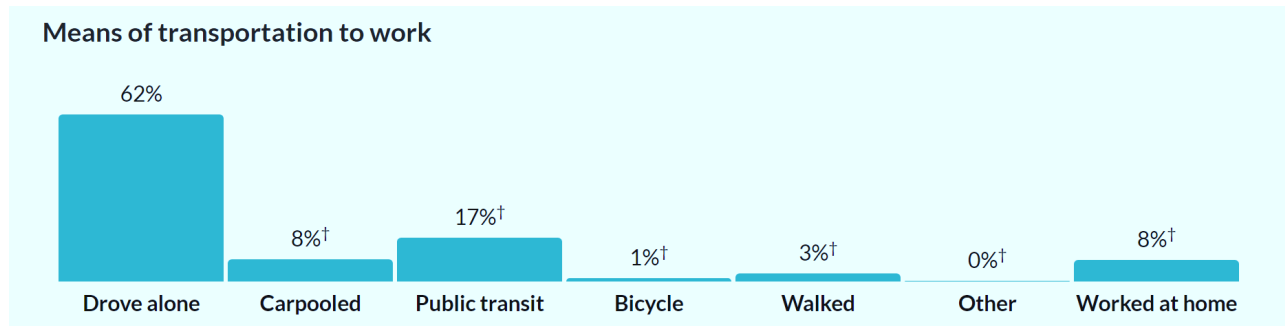
Characteristics	Homeowners	Renters
Married couple families	60.1%	39.9%
Number of households	934	1,056
Persons per household	1.3	1.1
Median household income (35% with a household income above \$150,000)	\$154,167	\$59,022
Median household income within ZIP code (94403)	\$152,708	\$99,781

Source: ACS 2018 5-year, Census.gov

Commute Insights

American Communities Survey data from 2018 indicates that a majority (62%) of those who live within the census tract commute to work by driving alone (Figure 12). The data also shows that carpool and transit are commonly used as well. The mean commute time across all travel modes is 31.5 minutes.

Figure 12. Commute mode split for residents living in census tract 6074



Source: ACS 2018 5-year, Census.gov (Universe: workers aged 16 and up)

As shown in Table 10, residents of the area commute to a wide variety of locations with approximately 18% commuting to San Francisco, 14% commuting within the City of San Mateo and almost 7% commuting to Redwood City.

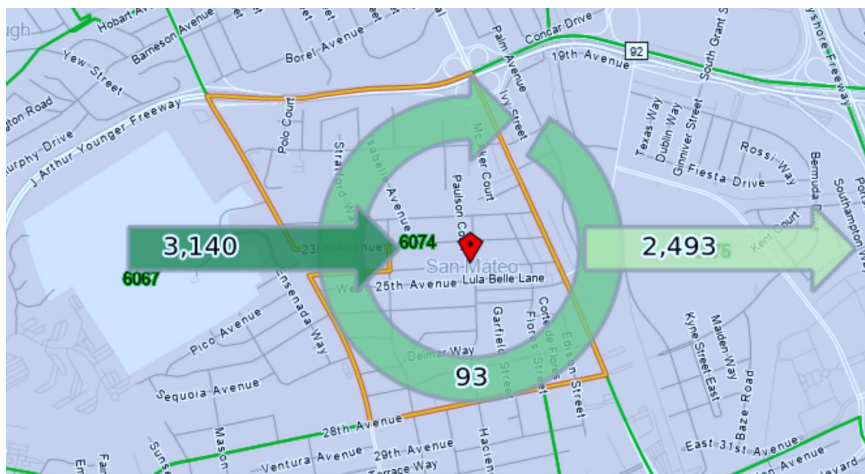
Table 10. Where people living in census tract 6074 worked in 2017

Job Locations	Count	Share
San Francisco, CA	476	18.4%
San Mateo, CA	355	13.7%
Redwood City, CA	168	6.5%
San Jose, CA	133	5.1%
Palo Alto, CA	114	4.4%
Burlingame, CA	93	3.6%
Mountain View, CA	92	3.6%
Other Locations	1,155	44.7%
All Places (Cities, CDPs, etc.)	2,586	100%

Source: U.S. Census Bureau, Center for Economic Studies

Inflow/Outflow analysis of the census tract, as shown in Figure 13, depicts that about 2,493 individuals commute out of the area and 3,140 people commute into the area for work on a daily basis. 93 individuals both live and work inside the same census tract.

Figure 13. Inflow/Outflow of Commuters for census tract 6074



Next Steps

A Traffic Impact Analysis (TIA) will be prepared to identify the project's vehicular trip generation and potential traffic impacts. In conjunction with the TIA, a TDM Plan will be developed to mitigate traffic impacts, reduce VMT, and promote sustainable travel through the provision of multi-modal infrastructure and amenities on site.

This Site Assessment will be used in creating a Draft TDM Plan. The TDM Plan will detail strategies and programs that can be used to encourage sustainable transportation to, from, and around the site.



Site Assessment

Review of site conditions, including:

- physical attributes
- available TDM services,
- travel trends



Draft TDM Plan

Development of TDM strategies, including:

- education & incentives,
- services & programming,
- monitoring & reporting.



Final TDM Plan

Finalization of the TDM Plan following input from the City

Control Information

Prepared by

Steer
800 Wilshire Blvd, Suite 1320,
Los Angeles, CA 90017
USA
+1 (213) 425 0990
www.steergroup.com

Prepared for

The City of San Mateo
330 W. 20th Avenue
San Mateo, CA 94403

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Author/originator

Puja Thomas-Patel

Reviewer/approver

Jenny Hong
Julia Wean

Other contributors

Nathan Pope
Kavina Patel
Hank Kaplan
Jayro Queme

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