

Memorandum

Date: July 10, 2025
To: Stephen Siri, Martin Mariner Square, LLC
From: Jordan Brooks and Sam Tabibnia, Fehr & Peers
Subject: **2433 Mariner Square Drive Project - Transportation Demand Management Plan**

OK23-0534

The 2433 Mariner Square Drive project is required to prepare a transportation demand management (TDM) plan per the City of Alameda Ordinance No. 3309.¹ This ordinance requires that any development of new dwelling units that will result in a net increase of 110 vehicle trips per day onto the public street network, as determined by the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, implement a TDM program designed to reduce the number of vehicle trips generated by the project. The goal of the TDM plan is to reduce the vehicle miles traveled (VMT) and vehicle trips, particularly single-occupant vehicle trips, by residents and visitors. This memorandum describes the project, estimates the trip generation prior to implementation of the TDM plan, lists the TDM strategies that the project shall implement, and quantifies their effectiveness.

1. Project Description and Transportation Setting

Based on a project site plan dated June 26, 2025, and included as **Attachment A** to this memorandum, the proposed project would construct a 356-unit multifamily residential building at 2433 Mariner Square Drive in the City of Alameda. Four existing buildings providing 37,400 square feet of office uses would be demolished. The project site is bound by Mariner Square Drive to the

¹ City of Alameda (November 17, 2021). *Ordinance No. 3309*. Accessed from:
https://library.municode.com/ca/alameda/ordinances/code_of_ordinances?nodeId=1123763



east, Mariner Square Loop to the south, and surface parking lots on land owned by Caltrans to the west and north.

The project's location is expected to result in moderate rates of pedestrian, bicycle, and transit trips. As a result of the availability of various destinations within walking and biking distance of the site and the available walking and biking infrastructure and transit service in the project area, the project site has a WalkScore of 70/100 (Very Walkable), BikeScore of 83 (Very Bikeable), and TransitScore of 62 (Good Transit).² These scores indicate the area is served by a range of transportation facilities and services that would enable residents to use non-automobile modes in accessing the project site.

The City of Alameda's *Active Transportation Plan* (2022) designates Mariner Square Loop adjacent to the project site as a Business Commercial Street. Design goals for Business Commercial Streets include:

- Continuous sidewalks across driveways
- Transit service with comfortable amenities like bus shelters and benches
- Crossings that are ADA-compliant with high-visibility markings and actuated pedestrian signals

Access and circulation for each mode are described below.

Automobile Access and Parking

According to the site plan, the project would provide a parking garage with 283 parking spaces. Access to the parking garage would be provided by a two-way driveway on Mariner Square Loop about 350 feet west of Mariner Square Drive. The project lease 131 parking spaces in the parking lot west of the project site from Caltrans, for a total of 414 parking spaces. The project would retain the existing access points for the surface parking lot, with two-way driveways on Mariner Square Drive about 550 feet north of Mariner Square Loop and on Mariner Square Loop about 400 feet west of Mariner Square Drive.

Transit Access

AC Transit provides bus service in the project vicinity via the following routes and stops:

² For more information about the Project area Walk Score, see <https://www.walkscore.com/score/2433-mariner-square-dr-alameda-ca-94501>, accessed on December 11, 2023.



- AC Transit Line 19 provides service to Downtown Oakland and the Fruitvale BART station, with an eastbound stop on Mariner Square Loop directly across from the project and a westbound stop on Marina Village Parkway about 500 feet east of the project. The eastbound stop provides a bus shelter with a bench and trash can. Project residents would access the stop by crossing either the east leg of the Mariner Square Loop-Mitchell Avenue/Mariner Square Loop intersection or the west leg of the Mariner Square Loop-Marina Village Parkway/Mariner Square Drive intersection. The westbound stop does not provide any amenities. Project residents would access the stop by crossing the north leg of the Mariner Square Loop-Marina Village Parkway/Mariner Square Drive intersection.
- AC Transit Line 96 provides service to Alameda Point, Downtown Oakland, and Oakland's Dimond District, sharing the eastbound stop on Mariner Square Loop with Line 19 and providing a westbound stop on Mitchell Avenue about 300 feet west of the project. The westbound stop provides a bus shelter with a bench. Project residents would access the stop via the sidewalk on the north side of Mariner Square Loop.

The Alameda Landing Express is a free shuttle with a stop on 5th Street about 0.3 miles walking distance west of the project site. The shuttle operates on weekdays during peak commuting hours and provides service between Alameda Landing and the 12th Street Oakland City Center BART station.

Pedestrian Access

The all-way stop-controlled Mariner Square Loop-Marina Village Parkway/Mariner Square Drive intersection adjacent to the project site provides directional curb ramps with truncated domes and standard crosswalk markings. Slip lanes with yield control are provided for the northbound right and southbound right turning movements.

Primary pedestrian access to the project would be provided on the east side of the project through the building lobby on Mariner Square Drive about 500 feet north of Mariner Square Loop. Secondary pedestrian access would be provided via entries on Mariner Square Loop, Mariner Square Drive, and on the west side of the project adjacent to the surface parking lot. The project would retain the existing 5-foot sidewalks on Mariner Square Drive and Mariner Square Loop.

Bicycle Access and Parking

Mariner Square Loop provides a westbound Class II bicycle lane adjacent to the project, and the project would provide a southbound Class II bicycle lane on Mariner Square Drive adjacent to the project. According to the Bikeway Vision Network in the City's *Active Transportation Plan*, buffered bike lanes are planned on Mariner Square Loop adjacent to the project, and a shared-use walking and bicycling path is planned on Mariner Square Drive adjacent to the project.



The project would provide long-term bicycle parking in an approximately 3,000 square-foot internal storage area on the ground floor on the north side of the building. The project would also provide a total of 72 short-term bicycle parking spaces located along the sidewalk at each entrance to the building.

2. Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the project on any given weekday. **Table 1** summarizes the trip generation for the project. Trip generation data published in ITE's *Trip Generation Manual (11th Edition)* was used to estimate the vehicle trip generation. The trip generation also accounts for the existing office uses that would be demolished.

Table 1: 2433 Mariner Square Drive Automobile Trip Generation

Land Use	ITE Code	Size ¹	Daily Trips	Weekday AM Peak Hour	Weekday PM Peak Hour
Proposed Land Use					
Multifamily Residential ²	221	356 DU	1,640	145	139
Removed Existing Land Use					
General Office ³	710	-37.4 KSF	-405	-57	-54
Net New Project Trips			1,245	88	85

Notes:

- KSF = 1,000 square feet; DU = dwelling units
- ITE *Trip Generation Manual (11th Edition)* land use category 221 (Multifamily Housing (Mid-Rise), General Urban/Suburban setting, Not Close to Rail Transit):
Daily: $T = 4.77 * X - 46.46$
AM Peak Hour: $T = 0.44 * X - 11.61$
PM Peak Hour: $T = 0.39 * X + 0.34$
- ITE *Trip Generation Manual (11th Edition)* land use category 710 (General Office Building, General Urban/Suburban setting):
Daily: $T = 10.84 * X$
AM Peak Hour: $T = 1.52 * X$
PM Peak Hour: $T = 1.44 * X$

Source: Fehr & Peers, 2024.

As shown in Table 1, the project is estimated to generate about 1,245 daily, 88 AM, and 85 PM peak hour net-new automobile trips. As a result, per the City of Alameda Ordinance No. 3309 and consistent with the City's General Plan Policy ME-20, action (a), the project is required to prepare a TDM Program to implement measures designed to change individual travel behavior and encourage greater use of alternative modes of transportation to reduce single-occupancy vehicle trips, vehicle miles traveled, and parking demand. The TDM plan will be reviewed and approved by the City of Alameda.



3. TDM Strategies

The strategies in this TDM plan shall be directly implemented by the project or if the project joins the Alameda Transportation Management Agency (TMA), indirectly through that agency. **Table 2** lists the TDM strategies and their effectiveness based on the Alameda County Transportation Commission (Alameda CTC) VMT Reduction Calculator Tool,³ which is primarily based on the research compiled in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (California Air Pollution Control Officers Association [CAPCOA], December 2021) and other available sources. The CAPCOA report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies. Each strategy is described in detail in the following pages.

The strategies in Table 2 are primarily targeted at project residents. While some of the strategies would also affect the travel behavior of residential visitors, this group is not directly targeted with TDM programs. Visitors would likely not be aware of TDM programs or visit frequently enough to make them cost effective.

The TDM strategies include both one-time physical improvements and on-going operational strategies. Physical improvements will be constructed as part of the project and therefore have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain improvements. Operational strategies provide on-going incentives and support for the use of non-auto transportation modes. These operational TDM measures have monthly or annual costs and will require on-going management and oversight.

³ See <https://www.alamedactc.org/planning/sb743-vmt/> for more information.



Table 2: TDM Plan Components

TDM Strategy	Description	Established VMT and Vehicle Trip Reduction ¹
A. Infrastructure Improvements	Various improvements, including high-visibility crosswalk markings, stop control for slip lanes, and six-foot sidewalks (details provided below)	N/A ³
B. Transit Passes ²	Provide households one AC Transit 31-Day Local Pass per month (or equivalent value ⁴ on a Clipper Card or other transit pass) upon request by resident	0-1%
C. Limited Parking Supply	Project provides about 0.8 off-street parking spaces per unit, about 60 percent of the rate of auto ownership for renter households in the City of Alameda. If a lease agreement is reached for the Caltrans lot, project would provide about 1.2 spaces per unit, about 85 percent of the citywide rate.	2-6%
D. Unbundled Parking	Residents are required to pay for a parking space separately from their monthly rent	
E. Designated Parking Spaces for Carshare	Offer to dedicate one on-site carshare parking space	0-1%
F. Carpool and Ride-Matching Assistance ²	Assist project residents in forming carpools	N/A ³
G. Bicycle Parking Monitoring	Monitor usage of the bicycle parking facilities and increase supply if necessary	0-1%
H. Guaranteed Ride Home	Encourage residents to register for the free program	N/A ³
I. TDM Coordinator ²	Coordinator responsible for implementing and managing the TDM Plan	N/A ³
J. Marketing and Education ²	Active marketing of all non-automobile travel choices	N/A ³
Estimated Vehicle Trip Reduction		2-9%

Notes

1. The focus of the CAPCOA document is reductions to VMT but the research used to generate the reductions also indicates vehicle trip reductions are applicable as well. For the purposes of this analysis the vehicle trip reduction is assumed to equal the VMT reduction.
2. If the project joins the TMA, this strategy would be either directly administered or promoted by the TMA.
3. The effectiveness of this strategy cannot be quantified at this time. This does not necessarily imply that the strategy is ineffective. It only demonstrates that existing literature does not provide a robust methodology for calculating its effectiveness. In addition, many strategies are complementary to each other and isolating their specific effectiveness may not be feasible.
4. AC Transit's 31-Day Local Pass is valued at \$84.60 per month as of February 2024.

Source: Fehr & Peers, 2024.



A more detailed description of the TDM measures is provided below. All on-going operational strategies, such as providing transit passes, shall be in place before the completion of the project, unless noted:

- A. *Infrastructure Improvements* – The following infrastructure improvements as approved by the City of Alameda and implemented by the project would improve bicycling and walking in the project vicinity and would further encourage the use of these modes:
 - Provide high-visibility crosswalk markings across the north and west approaches of the Mariner Square Loop-Marina Village Parkway/Mariner Square Drive intersection
 - Provide stop control for the northbound right and southbound right turn movements at the Mariner Square Loop-Marina Village Parkway/Mariner Square Drive intersection where slip lanes are provided
- B. *Transit Passes* – If requested, the project would provide a household with one regular Adult 31-Day AC Transit Local Pass per month (pass valued at \$84.60 per month as of February 2024), which provides unlimited rides on all of AC Transit's services within the East Bay, or provide an equivalent value on a Clipper Card or other transit pass.
- C. *Limited Parking Supply* – The project would provide 281 parking spaces, which corresponds to about 0.8 spaces per residential unit, or if an agreement is reached to lease the Caltrans lot, the project would provide a total of 412 parking spaces, which corresponds to about 1.2 spaces per unit. This is less parking than the current average automobile ownership rate of 1.4 vehicles per household for renter-occupied households in the City of Alameda.⁴
- D. *Unbundled Parking* – As required by the City of Alameda Municipal Code (Section 30-7.7), the cost of private residential parking in the project parking facility shall be unbundled from the price of the housing unit such that potential renters or buyers shall have the option of renting or purchasing a dwelling unit at a price lower than would be the case if there were a single price for both the dwelling unit and the parking space. Unbundling the cost of parking provides a financial incentive for residents to reduce car ownership.
- E. *Designated Parking Spaces for Carshare* – Offer to designate at no charge one on-site parking space for car-sharing (such as Getaround, Zip Car, etc.), with individual membership and mileage-based fees for the car-sharing service to be incurred by individual residents. Monitor the usage of the car sharing spaces and adjust if necessary.

⁴ U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates, Table B25044 for renter-occupied households



- F. *Carpool and Ride-Matching Assistance Program* – Offer personalized ride-matching assistance to pair residents interested in forming commute carpools. The project could use services such as 511.org RideShare, Scoop, or Enterprise RideShare.
- G. *Bicycling Parking Monitoring* – Monitor the usage of both long-term and short-term bicycle parking throughout the project site and provide additional bicycle parking if demand for bicycle parking is at or near capacity. Potential options may include converting automobile parking to bicycle parking if the automobile parking is underused.
- H. *Guaranteed Ride Home* - Encourage residents who work off-site to register for the Guaranteed Ride Home (GRH) program. Residents may be hesitant to commute to work by any other means, besides driving alone, since they lose the flexibility of leaving work in case of an emergency. GRH programs encourage alternative modes of transportation by offering free rides home in the case of an illness or crisis, if the employee is required to work unscheduled overtime, if a carpool or vanpool is unexpectedly unavailable, or if a bicycle problem arises. Alameda CTC offers a GRH service for all registered permanent employees who are employed within Alameda County, live within 100 miles of their worksite, and do not drive alone to work. The GRH program is offered at no cost to the employer, and employers are not required to register for their employees to enroll and use the program.
- I. *On-Site TDM Coordinator* – Designate a TDM coordinator through a dedicated on-site person responsible for implementing and managing the TDM plan. The TDM coordinator would also be responsible for ensuring that all residents and visitors are aware of their transportation options and would serve as a point of contact regarding the TDM programs.
- J. *Marketing and Education* – Provide residents information about transportation options. This information would also be posted in a central location (e.g., the main building lobby) and provided on a project website and be updated as necessary. In addition, new residents would receive this information as part of a “Welcome Packet” upon moving in. This information shall include:
 - *Transit Routes* – Promote the use of transit by providing user-focused maps. These maps provide residents with wayfinding to nearby transit and shuttle stops and transit-accessible destinations.
 - *Transit Fare Discounts* – Provide information about local discounted fare options offered by the San Francisco Bay Ferry Service, BART, and AC Transit, including discounts for youth, elderly, persons with disabilities, and Medicare cardholders.
 - *Car Sharing* – Promote accessible car sharing programs, such as Gig and Getaround by informing residents of car share services that are available in Alameda and applicable membership information.



- *Ridesharing* – Provide residents with phone numbers and contact information for ride sharing options, including Uber, Lyft, and Alameda taxi services.
- *Carpooling* – Provide residents with phone numbers and contact information for carpool matching services such as the Metropolitan Transportation Commission's 511 RideMatching.
- *Bikeshare/Scooters* – Educate residents about bikeshare/scooters, if they become available in Alameda.

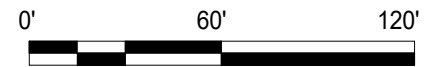
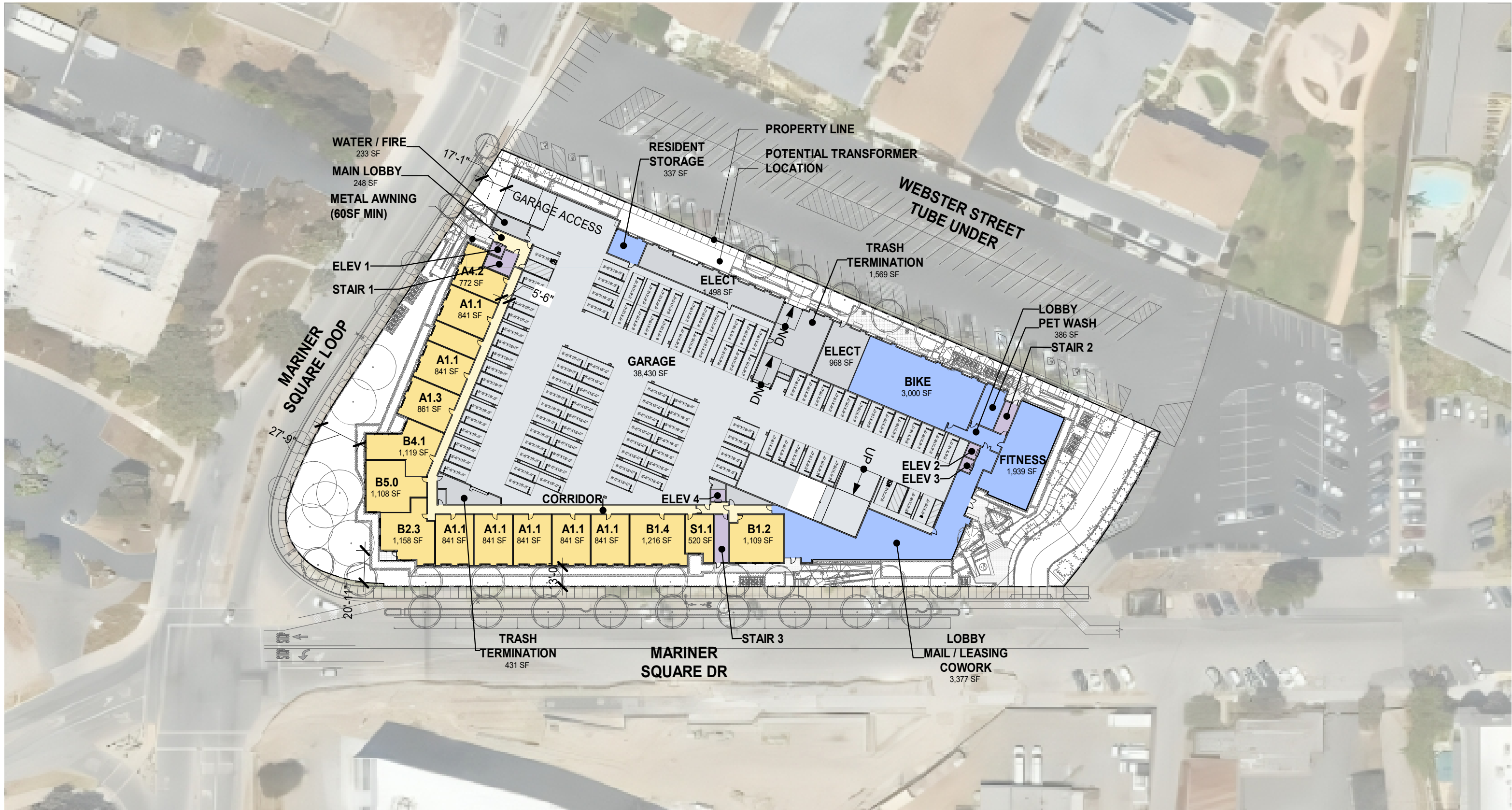
As shown in Table 2, it is estimated that the TDM strategies described above would reduce VMT and vehicle trips by between five and ten percent. Actual reduction in VMT and vehicle trips may be higher, particularly since the project would improve walking and biking infrastructure in the project vicinity and implement marketing strategies that cannot be quantified.

Please contact Jordan Brooks (j.brooks@fehrandpeers.com or 510-587-9429) with questions or comments.

Attachment A

Project Site Plan





1"=60'

SITE PLAN - GRADE

AP1.00