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**DRAFT TDM PLAN**

**2020 BAY ROAD**

Prepared for

City of East Palo Alto

under contract to  
DES Architects + Engineers

Prepared by

**KRUPKA CONSULTING**

August 5, 2020

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DES Architects + Engineers (hereinafter “Client”) engaged Krupka Consulting (hereinafter “Consultant”) to prepare a Transportation Demand Management (TDM) Plan for the 2020 Bay Road project in East Palo Alto, California (hereinafter referred to as “2020 Bay Road” or “Project”). The TDM Plan is required by the City of East Palo Alto (City) to support the Project entitlement application. This document represents the Draft TDM Plan and discusses purpose, TDM requirements, the Project, TDM measures, estimated performance of the TDM Plan, calculations of trip credits using guidelines established by the City/County Association of Governments of San Mateo County (C/CAG) and monitoring and reporting. *It is noted that this Draft TDM Plan is subject to revisions and refinements after the City completes and issues the Draft EIR for the Project and provides formal comments on this Draft TDM Plan.*

## **Purpose of TDM Plan**

The purpose of the TDM Plan is to define specific TDM measures to be implemented by the Project to meet the TDM Program goal, which is: at least 25% of all employees regularly commute to work using modes other than single occupant vehicles (SOVs) or use an alternative work hour schedule. Equally important with regard to purpose is C/CAG’s requirement that the TDM Program have the capacity to fully reduce the demand for new peak hour trips (C/CAG, Guidelines for Implementing the Land Use Component of the Congestion Management Program, 2015) (hereinafter “C/CAG Land Use Guidelines”).

The City is considering a new TDM ordinance that raises the TDM goal from 25% to 40%, which, if approved, may alter the purpose of this TDM plan. This underscores the City’s stated expectation that the Applicant will develop a robust TDM Plan and commit to necessary and appropriate TDM measures to reduce Project SOV trips.

## **TDM Requirements**

*Chapter 10.32 Transportation System Management Plan* of the City of East Palo Alto Code of Ordinances (hereinafter “City TSM Ordinance”) stipulates the minimum requirements for “Employer TSM Programs,” which are paraphrased below as customized for the Project. Project Owner will coordinate with Tenants, who will be responsible for carryout of these requirements and monitoring and reporting TDM Plan performance as stipulated. In other words, Project Owner intends to submit a TDM Report that presents a complete picture of TDM Plan performance based on Tenant-provide data and findings.

Employee Survey - A confidential survey of transportation characteristics of employees shall be conducted with findings submitted to the City upon full occupancy of the Project and periodically thereafter. The survey shall include information on number of employees, residence zip code, mode of travel to work, usual work schedule, and interest in commute alternatives. Attachment A, appended hereto, lists the proposed survey questions and gives a good understanding of the expected data to be generated.

Commute Alternative Information - A summary pamphlet shall be prepared that describes commute alternatives (to driving alone) and summarizes the TDM Plan. This pamphlet shall be made available to all employees and updated at least annually.

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TDM Report - A report shall be prepared and submitted to the City each year no later than March 30, which includes the following elements.

- Designation of a TDM Coordinator responsible for implementing and monitoring the TDM Program
- Evidence the TDM Coordinator has participated in TDM training sponsored by the County
- Commute Alternative Plan that defines specific TDM measures implemented to meet the TDM Program goal, which is: at least 25% of all employees regularly commute to work using modes other than single occupant vehicles or use an alternative work hour schedule. Candidate TDM measures may include, but not be limited to, the following.
  - Ridesharing
  - Alternative work schedules
  - Parking management, including preferential parking for ride sharing participants and cash payments or subsidies to encourage use of alternative commute modes
  - Public transit subsidies or provision of shuttle services
  - Telecommuting
  - Bicycling incentives, including preferential bicycle storage and locker/shower facilities
- Results of the Employee Survey (upon full occupancy of the Project)

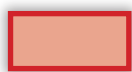
## **Project Description**

Location - As shown in Exhibit A, the 17.2 acre project site is located in the eastern portion of the City of East Palo Alto. The site is located at the eastern end of Bay Road, near Cooley Landing Park and the San Francisco Bay shoreline. The project site is bounded by Bay Road, Tara Street, an industrial property and Ravenswood Open Space Preserve. Surrounding uses are primarily light industrial, with a PG&E substation across Bay Road and residential neighborhoods west and south.

The project site is located within the Ravenswood/4 Corners Transit Oriented Development (TOD) Specific Plan area. Development within the Specific Plan area was previously evaluated in the Ravenswood/4 Corners TOD Specific Plan EIR certified by the East Palo Alto City Council in 2012. Citywide development was also evaluated in City of East Palo Alto General Update EIR certified by the East Palo Alto City Council in 2016.

The City started construction of the Bay Road Improvements Project Phase II and III in summer 2019. This major project, scheduled to be complete in 2022, will improve the roadway to accommodate new sidewalks, bike lanes, ADA accessibility, lighting, landscaping, and street furniture between Clarke Avenue and Cooley Landing. Phase II improvements, between Clarke Avenue and Tara Street, will provide two travel lanes, one bike lane and parking in each direction in addition to the noted enhancements behind curbs. Phase III improvements, between Tara Street and Cooley Landing, will rebuild the present unpaved roadway to provide one travel lane and one bike lane in each direction in addition to the noted enhancements behind curbs. The Phase III improvement will provide a dramatic change to the Project frontage on Bay Road.

Description - The Project will redevelop the site with approximately 1.3 million square feet of Class A office space in a contemporary campus setting that includes a waterfront park (with



Project Site



Existing Bikeways



Existing Bus Stops

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dedicated Bay access parking), pleasant walking paths, generous multimodal access and circulation features and business support uses.

The project will include five eight-story office buildings, an automated parking structure complex and preferential surface parking. Approximately 4,470 total parking spaces will be provided. The five office buildings will range in size from approximately 224,000 square feet to 322,000 square feet. Approximately 14,000 square feet of business support space will be located on the first floor of Building 2 facing Bay Road.

## **Supportive TDM Infrastructure**

The Project will be a pedestrian and bicycle friendly office development located on improved Bay Road with its supportive existing TDM infrastructure such as non-vehicular connectivity, complemented by specific Project TDM measures. The following paragraphs highlight these features.

Community Connectivity - The Project and respective site improvements connect to and complement Bay Road improvements including streetscape, sidewalks, and bike lanes, and existing trails serving the shoreline and Cooley Landing. This indicates positive community connectivity.

Public Transportation Access - Three SamTrans bus routes serve bus stops within 1/3 mile (less than 10 minute walk) of the Project on Bay Road and Pulgas Avenue. Two of these routes serve Caltrain stations: number 280 serves Palo Alto (with a frequency of approximately 60 minutes), and number 296 serves Palo Alto, Menlo Park, and Redwood City (with a frequency of approximately 60 minutes). The third route, number 81, provides limited “school day only” service to Menlo-Atherton High School.

Pedestrian Amenities - Site access for pedestrians will be provided by continuous public sidewalks on Bay Road and Tara Street. A generous landscaped pathway system will connect public sidewalks to all buildings, parking facilities and waterfront park.

Bicycle Amenities - The Project will be served by Class II Bikeways on Bay Road, and the Bay Trail. The Project will include 225 Class 1 bicycle parking spaces, distributed 45 per building and located in secure enclosures with exterior doors.

Shower Facilities - The Project will include showers to support employees who bicycle and walk to work. These will be located within two rooms in each building (6 showers in Buildings 1 and 4, 8 showers in Buildings 2, 3 and 5).

Parking Management - The Project will include 90 clean air vehicle parking spaces designated for preferential use by carpool/vanpool, low-emission, and fuel-efficient vehicles per Cal Green requirements. These parking spaces will be distributed in preferential locations near building entries and within the automated parking structure complex. Also, 269 electric vehicle ready parking spaces will be similarly distributed in preferential locations. Finally, the project will include 12 parking spaces reserved for bay access (“BCDC Stalls”) at the waterfront park.

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The automated parking structure complex will allow detailed monitoring and management of vehicle access and egress with regard to user, time and volume. The control system can be programmed to allow individualized or group access and egress by time periods. This smart design feature will complement TDM strategies like alternate work hours by providing guidance, control and monitoring functions.

Business Support Space - Ground level space in Building 2 will be designated for uses supporting businesses and employees, which induce non-vehicular trips within the project site. Tenants will be encouraged to patronize these businesses.

Vehicular Access - Four driveways will serve the Project, two on Bay Road and two on Tara Street. The central driveway between Buildings 1 and 2 will serve as the main drive aisle and includes a shuttle bus stop. Surface parking will be accessible from all driveways. Freight and trash loading zones are provided adjacent to all buildings.

## **Project TDM Measures**

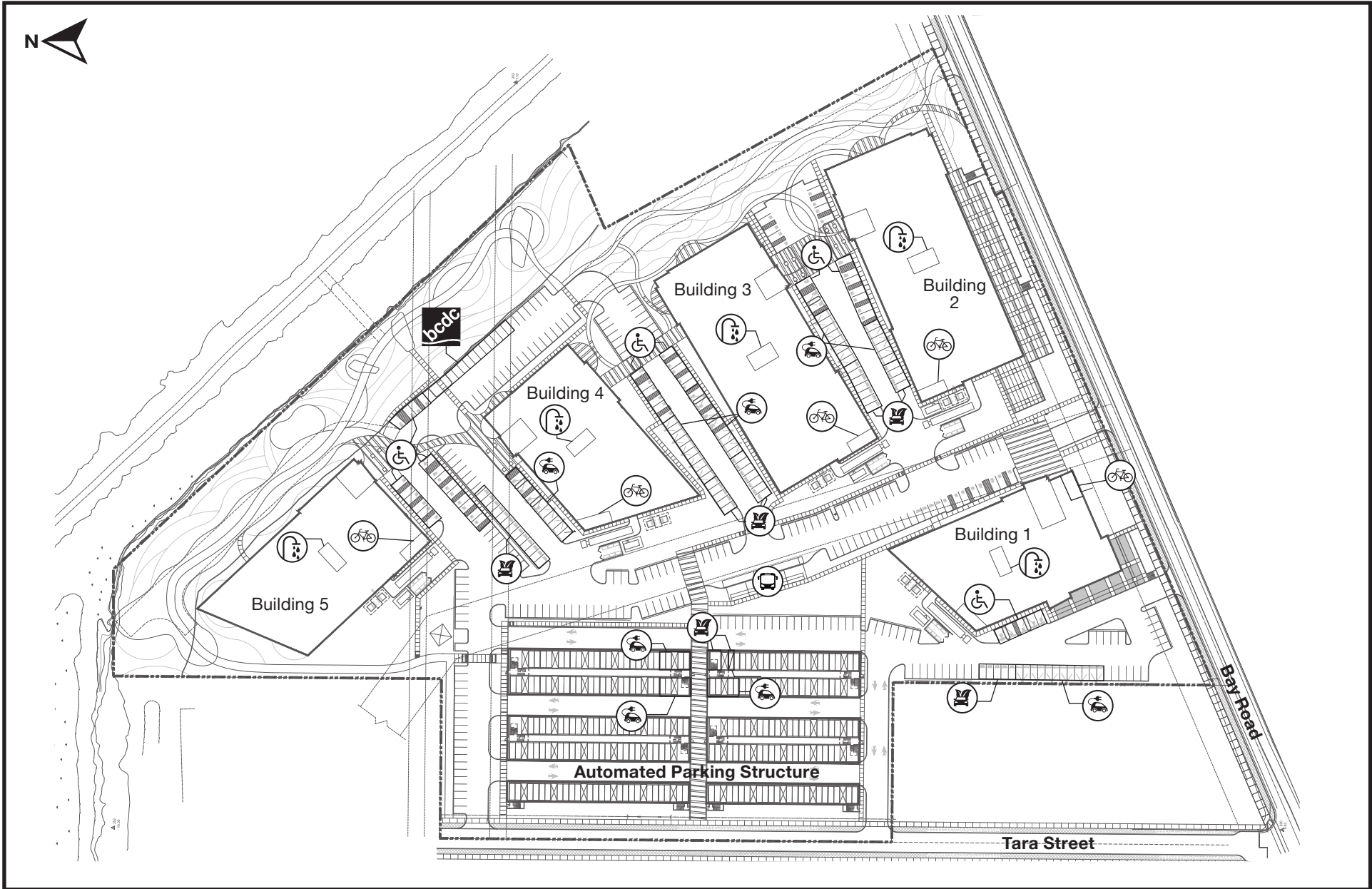
Given the Project may be occupied by one or more tenants, and most candidate tenants are familiar with and routinely incorporate TDM in practice, Project Owner intends to require tenants by lease agreement to actively incorporate and participate in TDM plan elements most suitable to them to achieve the Project's TDM Plan purpose, reduction in Project SOV trips.

Exhibit B highlights TDM measures that will be provided, including these discussed above: pedestrian and bicycle amenities, shower facilities, and preferential parking. Three significant SOV reducing measures will be implemented - Employee Shuttle Service, Transit Subsidy and Alternate Work Hours - as summarized below.


Employee Shuttle Service - Tenants shall provide dedicated peak period shuttle bus service to a transit station (e.g., existing Caltrain station) and residential areas. The intent is to tailor the shuttle service to match travel and residence characteristics of project employees. A centrally located shuttle stop will be provided with two bus bays and sheltered accessible waiting areas with seating and lighting.

Transit Subsidy - Tenants shall provide financial incentives to employees who use alternative commute modes by subsidizing annual pass programs such as the Caltrain Go Pass, which is an annual unlimited-ride pass good for travel on Caltrain between all zones, seven days a week or SamTrans Way2Go, which gives holders unlimited rides on bus and express bus lines. The minimum subsidy value per C/CAG Land Use Guidelines is \$20 per month per employee for one year (or \$240 per employee for one year).

Alternate Work Hours - Tenants shall offer employees opportunities to establish work hours to suit their mutual schedules, thereby spreading out employee arrivals and departures and reducing peak period vehicle traffic.



**LEGEND**

 Secured (Class I) Bike Parking

 CAV Stalls

 Shuttle Stop

 BCDC Stalls

 ADA Stalls

 EV Spaces

 Showers



## **Complementary TDM Measures**

Tenants shall be encouraged to select and implement TDM program and service measures such as, but not limited to, the ones described below to help them achieve the TDM Plan goals. Tenants may also incorporate alternate measures to those described below to achieve their trip reduction goals.

Commute Coordination Support - TDM Coordinators may provide commute assistance to employees, including advice about alternative transportation services and local services and amenities. This may include the following functions.

- Introduce employees to the TDM Plan
- Assist with 511 Bay Area to identify transit, carpool and vanpool opportunities
- Help match “bike buddies” and “walk buddies”
- Coordinate and manage bicycle parking and preferential parking spaces
- Help assess and establish alternative work schedules and telecommuting
- Catalog and update available transportation services, bicycle routes, bike share facilities, transit schedules and shuttle services; provide alerts regarding changes and new opportunities

Guaranteed Emergency Ride Home - Tenants may provide free guaranteed emergency ride home services for employees who use alternative commute modes. This gives eligible employees free rides home in case of personal emergencies or unexpected late work days that cause them to miss a customary transit ride or carpool seat.

## **Peak Period TDM Plan Performance**

Consultant prepared preliminary estimates of Project employee commute trips by alternate modes and potential reductions in Project single occupant vehicle trip generation associated with the Draft TDM Plan for the Project (documented in a separate memorandum). Estimates of Drive Alone, Alternate Mode, Telework (working away from employment site) and Alternate Work Hours were developed using observed employee commute mode split at Amazon in East Palo Alto.

Table 1 summarizes estimated Project commute trips based on the mode split shown, totaling 873 peak period trips, and the estimated Project telework trips, 483. It is noted that one-way commute trips excluded Telework trips given they are not trips to the Project site. Also, peak period commute trips excluded trips designated Alternate Work Hours, which by definition will occur outside the peak periods.

For information, peak hour trips were estimated to be 50% of peak period values, which is most relevant to the subsequent calculation of trip credits using C/CAG Land Use Guidelines.

Table 2 summarizes estimated Project peak hour commute trips by Alternate Modes based on the mode split shown.

**Table 1  
PEAK PERIOD COMMUTE TRIPS  
2020 Bay Road TDM Plan**

	<b>Total</b>	<b>Drive Alone</b>	<b>Alternate Modes</b>	<b>Telework (Remote)</b>	<b>Alternate Work Hours</b>
Mode Split	100%	65%	25%	10%	25%
Total One-Way Trips	4835	3143	1209	483	
Total One-Way Commute Trips	4351	3143	1209		
Peak Period Commute Trips (7:00 - 9:00 AM OR 4:00 - 6:00 PM)	3143	2270	873		-1209

**Table 2  
PEAK HOUR COMMUTE TRIPS BY ALTERNATE MODES  
2020 Bay Road TDM Plan**

	<b>Total</b>	<b>Carpool / Vanpool</b>	<b>Employee Shuttle</b>	<b>Public Transit</b>	<b>SamTrans Bus</b>	<b>Caltrain</b>	<b>Bicycle</b>	<b>Walk</b>
Mode Split	25%	5%	10%	8%			1%	1%
					1%	7%		
Peak Hour Commute Trips	436	87	175	140			17	17
					17	122		

*Performance of the TDM Plan was measured by adding the proportions of total peak period trips by alternate modes, 873, and telework, 483, which equaled 1,356 trips. **This represents a total reduction in peak period trips of 43% (1356/3143 = 0.43), which exceeds by a substantial margin the TDM Program goal of 25%.***

### **Calculation of Trip Credits Per C/CAG Guidelines**

The implementation of a TDM program that has the capacity to fully reduce the estimated demand for new peak hour trips generated by a new development project is one of five options local jurisdictions may use to help offset or mitigate the traffic impacts of development projects according to the C/CAG Land Use Guidelines.

Table 3 summarizes the estimated trip credits for the Project TDM Plan, based on application of the C/CAG trip credit unit values. This table also includes the estimated maximum peak hour trip generation (“project new peak hour trips”) based on assumptions in the Traffic Impact Analysis

**Table 3  
ESTIMATED TRIP CREDITS PER C/CAG GUIDELINES  
2020 Bay Road TDM Plan**

<b>TDM Measure</b>	<b>Units</b>	<b>Notes</b>	<b>Rate</b>	<b>Trip Credits</b>
Bicycle lockers and racks	225		1/3	75
Showers and changing rooms	10	2 rooms per building	10	100
Preferential parking for carpoolers and vanpoolers	90	CAV spaces; carpool credit rate applied	2	180
Provision of on-site amenities/ accommodations > Business Support <i>Space in Building 2</i>	1		5	5
Dedicated peak period shuttle to urban residential area (see Note 1)	175	Peak hour boardings to/from employee residence area	1	175
Dedicated peak period shuttle to transit station (see Note 1)	122	Peak hour boardings to/from Caltrain station	1	122
Subsidizing transit passes for employees (at least \$20/month/pass for one year) (see Note 2)	1343	Assumes subsidy provided to 25% of employees	1	1,343
Alternate work hours (see Note 2)	1343	Assumes 25% of employees participate	1	1,343
<b>TOTAL TRIP CREDITS</b>				<b>3,343</b>
<b>PROJECT NEW PEAK-HOUR TRIPS (see Note 3)</b>				<b>1,745</b>
<b>PROJECT TRIPS MITIGATED?</b>				<b>YES</b>

**Notes:**

1. Estimated peak hour employee shuttle bus ridership: 175 boardings for service to/from employee residence area; 122 boardings for service to/from Caltrain Palo Alto Station. From employee trip generation analysis by Consultant.

2. Estimated total project employment at 4 employees/1,000 sf = 5,372. Both TDM measures are variable and would be tailored to tenants. Assumed 25% participation (1,343 employees) for subsidized transit passes was based the estimated base existing mode share public transit of 8%; offering the subsidy to 25% of employees - a substantially larger number of employees that currently use transit - is an incentive. Regarding alternate work hours, the assumed 25% participation (1,343 employees) is a conservative base figure; observations from Amazon in East Palo Alto indicated a significant spread of arrival and depart times outside the peak hours. From employee trip generation analysis by Consultant.

3. Estimated by Consultant based on trip generation analysis for the project in the Draft Traffic Impact Analysis prepared for the project (Op. cit., pp. 6-7).

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prepared for the project and provided by the City (Hexagon Transportation Consultants, Inc., 2020 Bay Road Office Development Traffic Impact Analysis, September 18, 2018, pp. 6-7).

***By comparison, the estimated project trip credits exceeds the project new peak hour trips value, which indicates the project trips are considered mitigated according to the noted guidelines.***

## **Monitoring and Reporting**

A monitoring and reporting plan shall be implemented to help Project Owner and the City assess the effectiveness of the TDM Plan against its stated goal, as summarized in the following paragraphs.

Employee Survey - Each year *after full occupancy of the Project* and prior to February 15, Tenants shall survey existing employees to estimate the proportion of employees commuting in single-occupant vehicles and assess employees' work and travel characteristics, overall perceptions of travel alternatives, and concerns about the TDM Plan. The proposed questions to be included in the survey are summarized in Attachment A.

Annual TDM Report - Each subsequent year the Project is occupied and prior to March 30, Project Owner shall prepare and submit a report summarizing the results of the Tenants' Employee Surveys and TDM Plan activities. The report shall also include descriptions of any new or modified programs to be introduced in the next year, or any programs that will be changed as a result of user comments. Project Owner shall meet with City staff to review comments on the report and discuss reasonable changes or other actions required to address the comments. Such changes or actions, and their implementation status, will be reported in the subsequent report.

Project Owner reserves the right to revise its TDM Plan as necessary to achieve TDM Plan goal in the most cost-effective manner, and understands that such revisions are subject to review and approval of the City Planning Manager. Project Owner also understands that City Planning Manager reserves the right to request modifications to the TDM Plan.

Fees - According to the City TSM Ordinance, the City Council may assess annual fees on all public and private employers to offset costs of City's TSM program. The amount of such fees shall be calculated as part of the annual budget preparation for City's TSM program and shall not exceed five dollars (\$5.00) per employee per year.

Enforcement - The City TSM Ordinance stipulates that an employer who fails to comply with the provisions of the City TSM Ordinance shall be given notice and opportunity to cure non-compliant matters. The Ordinance also stipulates a schedule of per day penalties that shall be invoked if the employer fails to cure non-compliant matters as directed.

## **Conclusions**

This TDM Plan describes strong TDM infrastructure and Project TDM Measures, which give the Project a solid employee serving, pedestrian/bicycle friendly foundation, and required and complementary TDM Measures, which combined indicate compelling potential to achieve the TDM Program goal. A reasonable monitoring and reporting requirement provides a credible means for Project Owner and City to manage the performance of the TDM program.

## **ATTACHMENT A PROPOSED EMPLOYEE SURVEY QUESTIONS**

1. What time do you typically arrive for work in the morning?
  1. Shift Work or Varies
  2. Before 5:00 AM
  3. 5:00 AM to 10:00 AM — By 30 Minute Increment (increments are listed in the survey)
  4. After 10:00 AM
2. What time do you typically leave work?
  1. Shift Work or Varies
  2. Before 4:00 PM
  3. 4:00 PM to 8:00 PM — By 30 Minute Increment (increments are listed in the survey)
  4. After 8:00 PM
3. During a normal week, how variable are your work hours?
  1. Start and finish at approximately the same time every day
  2. Work hours vary occasionally
  3. Work hours vary often
4. On a typical day, how long does it take to get to work (primary commute)?
  1. Full time teleworker, so commute time is negligible
  2. 1 to 120 minutes in increments of 15 and 30 minutes (increments are listed in the survey)
  3. Greater than 120 minutes
5. Approximately how far is it from your home to your work site (one-way)?
  1. Full time teleworker, so commute distance is negligible
  2. 1 to 100 miles in stepwise increments of 5, 10, 15, 20 and 40 miles (increments are listed in the survey)
  3. Greater than 100 miles
6. Which of the following best describes your regular work schedule?
  1. Five day work week (full-time)
  2. Four day work week, 10-hour days (full time)
  3. Nine days, 80 hours worked in two week period (full time)
  4. Part time
7. What is your primary mode of travel to work for each of these specific dates (seven listed)? (sub modes are listed in survey)
  1. Drive (alone, carpool, vanpool, motorcycle/moped)
  2. Passenger (taxi/Uber/Lyft, carpool, vanpool)
  3. Transit (SamTrans (Express Bus, Regular Bus), Caltrain, Dumbarton Express)
  4. Commute shuttle provided by employer
  5. Bicycle
  6. Walking, jogging, in-line skating, similar
  7. Work from home, off-site, similar
  8. Variable or compressed work schedule — day off
  9. Away from office(sick, vacation, non-work day, business travel)
8. Please offer your perspectives on alternative travel options at your work site.
9. Please offer and comments or concerns you have about the TDM Plan.