



# North Bayshore Transportation Demand Management (TDM) Plan Guidelines

## FINAL

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# 1 INTRODUCTION

## BACKGROUND

In December 2014 the City of Mountain View adopted the North Bayshore Precise Plan. The Precise Plan provides standards and guidelines for new development in the North Bayshore district, such as: setbacks and height limits; allowed land use uses; architectural design guidelines; and identifies how new public improvements are funded. The plan allows for up to 3.4 million square feet of non-residential new development.

The guidelines and standards set forth in the document seek to minimize the traffic impacts of new development through demand management, while also improving multimodal access through infrastructure improvements. To accommodate the planned long-term growth in the area and minimize traffic impacts, the Precise Plan establishes a trip cap based on a single occupancy vehicle (SOV) mode share target of 45%.

In order to meet the approved SOV mode share target the Precise Plan identifies a number of key infrastructure improvements and policies both at the district level and at the project level. At the district level a vehicle trip cap for the AM peak period (7-10 a.m.)<sup>1</sup> was established that covers the three entry points to North Bayshore: Shoreline Boulevard, San Antonio Road, and Rengstorff Avenue. A trip cap of 18,900 vehicle trips was set based on the capacity of the roadway network at these entry points.

This document focuses on the following demand management measures identified in the Precise Plan and proposes implementation guidelines for future project applicants; 1) project-level vehicle cap; 2) development of project-level transportation demand management (TDM) plans and; 3) the creation of a Transportation Management Association (TMA).

## KEY MEASURES

### Transportation Management Association

A Transportation Management Association (TMA) that covers companies and property owners in the North Bayshore and East Whisman areas has been established. All new projects will be required to join the TMA<sup>2</sup>. The key purpose of the TMA is to help its members and surrounding community reduce congestion and improve connectivity by pooling resources and developing coordinated transportation strategies. Key functions of the TMA as stated in the Precise Plan will also include the following<sup>3</sup>:

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<sup>1</sup> The AM peak period was defined as 7-10 a.m. in the North Bayshore Precise Plan.

<sup>2</sup> See standards under Section 6.13 of the North Bayshore Precise Plan

<sup>3</sup> Section 6.14 of the North Bayshore Precise Plan

- Create and manage a coordinated employee shuttle service that is also open to the general public
- Assist TMA members in meeting their TDM targets
- Coordinate monitoring and reporting of data on TDM measures and progress towards meeting trip reduction and SOV targets
- Develop transportation system and demand management strategies and secure funding from private employers, property owners, the City, regional, state, and federal agencies.

The formation of the Mountain View TMA began in the summer of 2013 and was fully incorporated on October 18, 2013. The TMA is an independent nonprofit membership organization which operates under the direction of its Board of Directors. The TMA is independent of the City and is not a public agency. Initial steps undertaken by the TMA include the creation of a work plan, assessing the transportation needs of its members, establishing a new shuttle service, and the creation of a TMA website ([www.mvgo.org](http://www.mvgo.org)).

The role of the TMA will continue to grow over time as more employers join and funding increases. With this growth there will be increased opportunities for employers to take advantage of coordinated district-wide services provided by the TMA rather than provide services directly to employees on an individual employer basis.

## Project Level Vehicle Trip Cap and TDM Plan

The Mobility chapter of the Precise Plan also establishes the following TDM requirements for all new development or building additions greater than 1,000 square feet:

- **Project-level vehicle trip cap.** All new development or building additions greater than 1,000 square feet shall have an AM peak period vehicle trip cap which will be established assuming a 45% SOV mode share and 10% carpool mode share, unless the applicant can demonstrate their proposed TDM program will result in a higher carpool mode share.
- **TDM plan.** The applicant and/or property owner shall prepare a TDM plan with programs and measures as a means to reduce vehicle trips below the established trip cap.

## STRUCTURE OF THIS DOCUMENT

This document provides project applicants with information on the transportation demand management (TDM) plan and vehicle trip cap standard established in the North Bayshore Precise Plan and how project applicants may fulfill these requirements. This document is divided into the following sections:

1. **TDM Plan:** required elements of the TDM plan and structure of the TDM plan
2. **Project Description and TDM Approach:** Description of the proposed project and the overall TDM approach
3. **Vehicle Trip Cap:** methodology for establishing the project-level vehicle trip cap
4. **TDM Program:** required TDM programs that all projects must implement and guidance on additional programs that can be implemented in order to meet the established trip cap
5. **Monitoring and Enforcement:** description of monitoring measures all projects will be required to undertake and enforcement mechanisms for non-compliance

## 2 REQUIRED PLAN ELEMENTS & STRUCTURE

This section outlines the required TDM plan elements and the order in which they should be presented in the TDM plan included in each project application. Each of the elements identified below is addressed in further detail in subsequent sections of this document.

### 1. Project Description and TDM Approach

Provide a description of the proposed project and the overall TDM approach that will be taken to ensure that the TDM program will be sufficient to meet the established trip cap. Describe any measures that will be taken to redistribute trips off of Shoreline Boulevard to the other two entry points to the district.

### 2. Calculation of Vehicle Trip Cap

Calculate the project-level AM peak period vehicle trip cap associated with the proposed project based on the methodology described in Section 4. Clearly state all of the inputs used. If adjustments to the methodology are requested, provide both the unadjusted trip cap using the established methodology, as well as the adjusted trip cap. Provide the requested documentation to support the adjusted trip cap.

### 3. TDM Programs to be Offered On-site or Through the TMA

Identify and describe in detail the TDM programs that will be offered by the project applicant and/or to be financed by the project applicant, but will be managed by the TMA. This includes both baseline measures, which all applicants must include in their TDM plan, as well as additional measures that will be included to meet the trip cap. For each measure provide the required information and level of detail requested in Section 5.

### 4. Monitoring and Enforcement Program

All new development or additions to buildings greater than 1,000 square feet will be subject to monitoring. The required elements of the monitoring program, and subsequent enforcement measures for non-compliance, are described in Section 6.

## 3 PROJECT DESCRIPTION AND TDM APPROACH

### PROJECT DESCRIPTION

The applicant should provide a comprehensive description of the proposed project and type of workforce the project is intended for. At a minimum, the project description should include the following elements:

- Intended land uses
- Square footage of each intended land use
- Amenities or services that will be provided for employees, such as a onsite cafeteria/food service, gym, or child care
- Amount and type of parking to be supplied, with a breakdown between visitor and employee parking spaces
- Site plan
- Type of employee that the site is designed for (traditional office, technology, research and development, customer service, banking, etc).
- Employee density per 1,000 square feet

### TDM APPROACH

The applicant shall provide a detailed narrative of their TDM approach and how that approach is reflected in the specific programs they have selected. This narrative should include a discussion of their workforce's anticipated travel patterns and behaviors, as these elements will inform what TDM programs are best suited to meet their future employees/tenant's needs. A breakdown of the anticipated commute mode splits for existing and future should be provided given employee travel patterns and behaviors and the components of the TDM plan. For example, if an applicant is expecting that a large portion of employees will be travelling greater distances to get to work then they may choose to focus on commuter shuttle services, carpooling and vanpooling subsidies, and free transit passes with the objective of achieving an anticipated mode split of 45% SOV, 20% carpool, 30% transit (public transit and commuter shuttle), and 5% walk or bike.

In contrast, if an applicant is expecting an employee base with more proximate home origins they could create a program that prioritizes bicycle and public transit incentives and subsidies, with an anticipated mode split of 45% SOV, 10% carpool, 10% walk or bike, and 35% public transit. An employer may also choose to emphasize telecommuting and flexible work schedules to both reduce employee vehicle trips and shift trips to outside of the peak period.

The TDM approach should also discuss how the applicant intends to implement, fund, and administer the TDM program. For example, the approach should identify whether the TDM

program will be managed by the employer or property owner, or will funding be given to the TMA to manage specific services for employees/tenants, or a combination of these two strategies.

## **DISTRIBUTION OF VEHICLE TRIPS**

The Precise Plan establishes a district-level vehicle trip cap for the AM peak period of 7:00 a.m. to 10:00 a.m. that covers the three entry points to North Bayshore: Shoreline Boulevard, San Antonio Road, and Rengstorff Avenue. A trip cap of 18,900 vehicle trips was set based on the capacity of the roadway network at these entry points. While the overall trip cap for the district has not yet been reached, Shoreline Boulevard is already at capacity during the AM peak period. Given the current and future constraints at the entry points to North Bayshore, trips travelling to and from North Bayshore are the of the greatest concern, particularly those entering and exiting during the peak period and at Shoreline Boulevard.

Therefore, the evaluation process will give consideration to those projects who present a detailed approach or strategies for shifting project-related vehicle trips off of Shoreline Boulevard onto other gateways to North Bayshore as part of the their TDM plan and to those projects who demonstrate that they can shift project-related vehicle trips out of the morning peak.

## 4 VEHICLE TRIP CAP

All new development or building additions greater than 1,000 square feet shall establish an AM peak period vehicle trip cap. The trip cap is the metric by which TDM compliance will be measured. This trip cap will be calculated based on an assumption of a 45% single occupancy vehicle (SOV) mode share and a 10% carpool mode share.

For project applicants with existing properties, the trip cap calculation must be applied to both existing square footage as well as new square footage, even if the new square footage will be added in a location non-congruent to existing property(ies). For example, if a new 50,000 square foot office building is to be constructed at Location A and the project applicant owns a 100,000 square foot office building at Location B, a distinct trip cap must be established for Location A, as well as Location B using the methodology described in this section.

The trip cap calculation assumes an employee density of 3.5 employees per 1,000 square feet for research and development uses and 4 employees per 1,000 square feet for office land uses. These are the ratios that were used in the traffic analysis for the Precise Plan and were used to establish the district trip cap. Projects may be designed for a higher employee density, but these established rates must still be used to calculate the project-level trip cap.

### CALCULATION OF PROJECT-LEVEL TRIP CAP

The following methodology shall be used to calculate the project-level trip cap:

**AM Peak Period Trip Cap** = Total number of SOV vehicles + total number of carpool vehicles

- Where total SOV vehicles equals:
  - Number of employees per 1,000 sq. ft.<sup>4</sup> x total square footage/1,000 x 45%
- Where total carpool vehicles equals:
  - (Number of employees per 1,000 sq. ft. x total square footage/1,000 x 10%)/2.2 employees per vehicle<sup>5</sup>
- Where all fractional trip numbers shall be rounded up

An example of this calculation for a **new office development** is shown below. The project is a 50,000 square foot office development.

- AM Peak Period Trip Cap = 100 vehicle trips

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<sup>4</sup> For the traffic analysis conducted by Fehr & Peers for the North Bayshore Precise Plan an employee density of 4 employees per 1,000 sq. ft. was assumed for office uses and an employee density of 3.5 employees per 1,000 sq. ft. was assumed for research and development uses.

<sup>5</sup> Assumed rideshare occupancy rate for the district, as established by the 2013 Shoreline Transportation Study.



- SOV vehicles
  - o  $4 \times 50,000/1,000 \times 45\% = 90$  vehicle trips
- Carpool vehicles
  - o  $(4 \times 50,000/1,000 \times 10\%)/2.2 = 10$  vehicle trips

An example of this calculation for an applicant with a **new office development and an existing research and development property** is shown below. The project applicant has an existing 50,000 square foot research and development building at Location A and plans to construct a new 50,000 sq. ft. office building at Location B.

- AM Peak Period Trip Cap at Location A = 87 vehicle trips
  - SOV vehicles
    - o  $3.5 \times 50,000/1,000 \times 45\% = 79$  vehicle trips
  - Carpool vehicles
    - o  $(3.5 \times 50,000/1,000 \times 10\%)/2.2 = 8$  vehicle trips
- AM Peak Period Trip Cap at Location B = 100 vehicle trips
  - SOV vehicles
    - o  $4 \times 50,000/1,000 \times 45\% = 90$  vehicle trips
  - Carpool vehicles
    - o  $(4 \times 50,000/1,000 \times 10\%)/2.2 = 10$  vehicle trips

## ADJUSTMENTS TO THE VEHICLE TRIP CAP

There are select adjustments to the vehicle trip cap methodology that can be made under the following circumstances.

### Carpool Mode Share

An exception to the carpool vehicle calculation can be made if the project applicant can demonstrate that their proposed TDM program will result in a higher carpool mode share and/or a higher average vehicle occupancy rate. Conducting an employee mode share survey is one way that an applicant could demonstrate that their project has a larger carpool mode share or higher average vehicle occupancy rate.

## 5 TDM PROGRAM

This section details the baseline Transportation Demand Management (TDM) programs that all new developments will be required to implement.

In order to meet the project-level trip cap it is likely that project applicants will need to provide additional TDM programs beyond the baseline requirements. A listing of potential programs with a description of the program and its impact on reducing SOV trips is provided at the end of this section to help applicants determine which additional measures they will include in their TDM program.

The role of the TMA will continue to evolve as the district and TMA membership grows. As such, project applicants may choose to work with and/or provide additional funding to the TMA where appropriate in order to provide services for their tenants/employees.

### BASELINE TDM PROGRAMS

Described below are the baseline TDM programs that all new developments must implement.<sup>6</sup> The applicant may also choose to negotiate with the TMA, public entity, or another property owner/employer to provide select baseline services on their behalf. The project applicant must submit documentation showing an agreement with the TMA or other entity to provide services on their behalf, as well as a description of the services that will be rendered.

#### 1. Priority Parking for Carpools and Vanpools

Reserved parking shall be provided for carpools and vanpools, per the requirements of the Precise Plan. At minimum, the number of dedicated carpool and vanpool spaces provided should meet the standards established in Table 32: Ridesharing Vehicle Parking Requirements, of the Precise Plan. In addition, the demand for these spaces should be routinely monitored to determine if additional reserved spaces are needed.

Reserved spaces should be marked and located in the most convenient location; adjacent to building entrances and/or on the ground level of a garage.

#### Plan Requirement

Indicate the number of carpool and vanpool reserved spaces to be provided and where they will be located on the project site.

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<sup>6</sup> Section 6.13 of the North Bayshore Precise Plan

## 2. On-Site Transportation Coordinator

An on-site employee transportation coordinator shall be established for each employer/project site to implement and manage the TDM program and to serve as a liaison between the employer/property owner and the TMA. At a multi-tenant site it may be more feasible and efficient for the property owner to designate a single TDM coordinator rather than establish a transportation coordinator for each individual tenant.

This position is essential in ensuring that employees/tenants are aware of transportation options and how to utilize programs, employees have a point of contact for any questions that may arise, programs run smoothly, and programs and services are coordinated with the TMA and its members.

Typical roles of transportation coordinators include:

- Providing information about monthly transit passes
- Marketing, including distribution of orientation materials for new employees
- Distribution of transportation news and commuter alerts
- Assisting with rideshare matching
- Providing Guaranteed Ride Home vouchers
- Audit and review of corporate and building transportation needs
- Consultation regarding pre-tax transportation benefits, setting-up commute programs, and compliance with regulatory requirements
- Managing travel surveys to track trends and develop new commute programs
- Coordinating services with vendors or between internal departments

### Plan Requirement

Identify an individual or job classification that will serve as the on-site transportation coordinator. If a single employer will be occupying the project, note what department the transportation coordinator will be in and if this will be a full or part-time position. If the property owner will be designating a transportation coordinator for a multi-tenant property, the applicant should identify who will serve as the transportation coordinator and if this will be a full or part-time position.

All applicants must describe the duties and responsibilities of the transportation coordinator.

## 3. Bicycle Parking, Shower and Changing Facilities

Section 6.6 of the Precise Plan contains both short- and long-term bicycle parking standards for new development. Office and research and development projects must also provide showers and personal lockers per the bicycle parking standards in the Precise Plan.

### Plan Requirement

Identify how many short-term and long-term bicycle parking spaces will be provided, as well as showers and personal lockers if applicable. Provide a description of the type of short- and long-term parking facilities that will be provided. Indicate on a site/building plan where bicycle parking will be located as well as showers and personal lockers if applicable.

## 4. Bike Sharing

Bike share systems provide a network of public bicycles from dispersed self-service bike share stations. Similar to car sharing, members can check out a bicycle, ride to their destination and return the bicycle to any bike share pod in the system. For convenience, bike share systems typically provide real-time information on the status of available bikes and empty docks through the web, kiosk, and/or mobile applications. In order to increase accessibility and efficiency, bike share programs are typically provided as a coordinated system across a city, region, or on district-wide level.

### Plan Requirement

Bike share systems operate best as a single coordinated and unified network. Project applicants are strongly encouraged to leverage partnerships with the TMA and other employers to create a district-level bike sharing system. At a minimum, the project applicant shall implement their own bike share program which makes bicycles available to employees/tenants free of charge.

The TDM plan should identify the number of shared bicycles that will be made available, where bicycle pods will be located, and who will manage the program. Bicycle helmets and locks should also be made available.

## 5. Telecommute/Flexible Work Schedule Program

Offering employees the opportunity to work from home or travel outside the peak travel periods can help reduce the number of vehicle trips during the peak period and also serve as an employee benefit or perk.

### Plan Requirement

All project applicants must create a telecommute/flexible work schedule policy and program for their project. This policy should describe who is eligible for telecommuting/flexible work schedule and what the parameters are. For example, is telecommuting limited to a number of days per week or to certain days of the week? Is there a range of hours within which employees can arrive and depart or condensed into a 9/80 or 10/40 workweek schedule?

If the project applicant will be leasing out the property to one or more tenants then it should be stipulated in their lease arrangements that a telecommute/flexible work schedule program policy will need to be adopted.

If the nature of the work being undertaken at a specific site makes offering telecommuting or flexible work schedules infeasible an explanation must be provided.

## 6. Guaranteed Ride Home Program

Guaranteed Ride Home (GRH) is a program that provides a “back-up” ride to employees who use transit, carpool, biking/walking, or other alternative as their commute mode. For example, if an employee needs to leave work for an emergency, such as a sick child or other unexpected need, they will be redeemed for the cost of taxi ride or a car rental to get them home. This is an important supportive measure to encourage employees to not drive alone to work.

For example, VTA offers a GRH program to all employees who use an Eco Pass to commute on VTA bus, light rail, or paratransit from home to work. The cost of the taxi ride (excluding optional

tip) is paid by VTA. In addition, a number of Bay Area counties offer programs for employers that could serve as a resource or model for employers. The Alameda Transportation Commission oversees Alameda County's GRH program<sup>7</sup>. The San Francisco Department of the Environment also sponsors a free GRH program for employers located in San Francisco County<sup>8</sup>.

### **Plan Requirement**

If a district-wide GRH program is not provided by the TMA at the time of submittal, the project applicant shall provide their own GRH program for their employees/tenants. The TDM plan should describe the program that will be offered and who will manage the program.

## **7. Membership in the Transportation Management Association (TMA)**

Per the standards set forth in the Precise Plan, all new office/research and development projects or additions to existing buildings greater than 1,000 square feet are required to join the TMA. All tenants shall be TMA members in perpetuity from the date of final inspection or certificate of occupancy.

Membership in the TMA requires both a one-time membership fee as well, as an annual fee to cover the costs of services provided by the TMA, as defined in the TMA's bylaws.

## **8. Rideshare Matching Services**

One of the greatest impediments to carpool and vanpool formation can be finding suitable riders with similar work schedules, origins, and destinations. Facilitated rideshare matching can overcome this obstacle by enabling commuters who are interested in ridesharing to enter their travel preferences into a database and receive a list of potential rideshare partners. The success of these programs is largely determined by the number of participants and, in turn, the number of potential matches that can be made.

Existing programs such as 511.org can be utilized to facilitate carpooling. However, applicants may wish to provide their own ridematching service as a way to increase ridematching compatibility. This program is discussed further in the Additional TDM Programs section.

### **Plan Requirement**

At a minimum, provide employees/tenants with information on 511.org's ridematching service and work with 511.org to develop a matching service limited to employees or building tenants. In addition, the TDM coordinator should create an employee home location map or work with 511.org to create this graphic to share with employees and should notify employees with information about potential carpool matches.

## **9. Shuttle Services**

A key element to encouraging employees to take transit is providing the "last-mile" connections with local or regional transit services, such as Caltrain and VTA.

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<sup>7</sup> For more information on Alameda's GRH program go to <http://grh.alamedactc.org>

<sup>8</sup> For more information go to [www.sferh.org](http://www.sferh.org)

## Plan Requirement

Project applicants must demonstrate that they are providing connecting service between their site and local/regional transit services. Service may be provided directly by the applicant, in cooperation with another employer/property owner, by a publicly provided shuttle service, or by the TMA. If the project applicant will be utilizing an existing service to fulfill this requirement they must demonstrate that they have contacted the service provider and have come to mutually agreed arrangement for using this service. Project applicants are strongly encouraged to create partnerships to leverage existing shuttle services or provide joint services, given the existing loading constraints at Mountain View Caltrain station and to reduce the traffic impacts of shuttle buses.

A description of the service must be provided including hours of operation, frequency, routing, stop locations, and the type of vehicle that will be used.

## 10. Marketing and Information

In order to ensure that employees/tenants are aware of the programs available to them a marketing and information program must be implemented. Common methods for distributing information include:

- Employee/tenant “welcome” packet
- Employer and/or TMA website with information and links to relevant agencies, forms, and services
- Information boards/kiosks located in centralized locations such as a building lobby
- Regularly published electronic or printed newsletter
- Informational email blasts

## Plan Requirement

Describe in detail how relevant transportation information will be distributed to employees/tenants and what information will be provided employees/tenants.

## OPTIONAL TDM PROGRAMS

In addition to the baseline TDM programs that all project applicants must provide, additional TDM programs may be required in order to meet the trip cap. Described below are additional TDM programs that project applicants may include in their TDM Plan. **None of these programs are required, yet implementation of one or more of these programs is likely needed to demonstrate compliance with the trip cap.** Project applicants are not limited to the measures identified in the document and may propose other measures.

The information provided in this section is not an exhaustive list of all available TDM measures and project applicants are encouraged to expand on the examples given to create a TDM program that best fits the needs of their tenants/employees. In addition, the examples provided under each measure are for information purposes and applicants should not feel limited to following the examples as presented.

### 1. Parking Cash-Out

Many North American employers provide free or reduced price parking for their employees as a fringe benefit. A parking “cash-out” program gives employees the choice of keeping their parking space at work or accepting a cash payment in lieu of the space. This provides a financial incentive to find alternative means of transportation to work, while reducing demand for parking. The cash value of the parking subsidy can be offered in one of three forms:

- A transit/vanpool subsidy equal to the value of the parking subsidy (of which up to \$130 is tax-free for both employer and employee).
- A taxable carpool/walk/bike subsidy equal to the value of the parking subsidy.
- Alternately, employees can be given a general “transportation fringe benefit” equal to the market value of an employee parking space, and all employee parking can simply be priced with a daily fee.

Parking cash-out is a state law in California, but the state law only applies to employers with 50 employees or more who lease their parking and where parking costs can be separated out as a line item on their lease.<sup>9</sup>

Employees who choose to participate in the parking cash-out program will not be eligible for on-site parking. However, there may occasionally be times when employees who primarily commute using alternative modes of transportation need to drive to work. A limited number of daily parking passes could be provided to these employees for such occasions. A reasonable maximum could be 20 passes per year or 2 passes per month.

#### Plan Requirement

Describe the type of subsidy that will be provided, the amount of the subsidy, and how such a program will be implemented.

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<sup>9</sup> For more information on California’s parking cash-out law go to <http://www.arb.ca.gov/planning/tsaq/cashout/cashout.htm>

## 2. Parking Pricing

Setting a price on parking can help to reduce demand for parking and related vehicle trips. If parking pricing is implemented it is recommended that it be structured as a daily rate, rather than a monthly or annual rate. When parking rates are structured on a daily schedule, this can also provide maximum flexibility to commuters who might prefer to bicycle or use transit on some days, but don't want to forfeit their driving options entirely. Conversely, monthly or annual parking passes encourage more driving as parking costs become a "sunk" investment, after which parking becomes essentially free and choosing to take the bus or train becomes an expense and a choice that can be perceived as wasting the parking pass investment.

### Plan Requirement

Identify the parking fee that will be charged for parking. Describe the mechanism for charging for parking. For example, describe if drivers be required to swipe a payment card or id card to enter the garage/lot or other measures to be used to collect payment.

## 3. Parking Supply

The Precise Plan establishes an on-site parking maximum for new development in North Bayshore and eliminates all minimum parking requirements – no on-site parking is required. The parking maximum for office and research and development is set at 2.7 parking spaces per 1,000 square feet. The parking maximum for retail and commercial uses is equivalent to the Institute of Transportation Engineers parking generation manual peak period parking demand for the land use deemed most equivalent by the Zoning Administrator. The peak period may occur during the AM or PM peak period depending on the land use.

Given that no minimum is required, project applicants may choose to provide less than 2.7 spaces per 1,000 square feet or the rate established by the Zoning Administrator for retail and commercial uses.

The availability of parking will influence the SOV mode share, as people will be incentivized to try other modes if parking is not easily accessible. However, it should be noted that solely reducing the amount of parking will not be deemed sufficient to achieve the trip cap and should be accompanied by other supportive measures that enable employees to commute via carpool, vanpool, transit, walking or biking.

### Plan Requirement

Identify the number of parking spaces that will be provided per 1,000 square feet and what percentage of parking is anticipated to be used by employees versus visitors.

## 4. Pre-Tax Commuter Benefits

Pre-tax commuter benefit programs allow employees to pay for transit passes with pre-tax earnings and can help encourage transit use among employees. Employees are given vouchers as a substitute for taxable salary. Employees can redeem vouchers for transit passes at sales offices, retail sales outlets, or online to have passes mailed to them or loaded onto a Clipper Card.<sup>10</sup> By

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<sup>10</sup> For more information on how Clipper Card works with Commuter Checks go to <https://www.clippercard.com/ClipperWeb/commutercheck.do>



substituting taxable salary for a tax-free voucher, employees can save 40% in after-tax value while the employer can save 10% in payroll-related costs. These benefits are offered at the federal tax level<sup>11</sup> and are available to employers of any size. One example is the Commuter Checks<sup>12</sup> program.

### **Plan Requirement**

Commit to offering employees the opportunity to pay for transit passes with pre-tax dollars.

## **5. Subsidized or Free Vanpools or Carpools**

To further encourage carpooling and vanpooling, employers/property owners can offer financial incentives to those persons who carpool or vanpool or establish employee sponsored vanpools. Such a program shall be supported by preferential parking for ridesharing vehicles (described above). If employers/property owners are interested in establishing a vanpool there are several existing services that can assist employers/property owners. 511.org can provide assistance in setting this program up and finding a vendor. One example of an existing vendor in the Bay Area is Enterprise, which offers vanpooling services for both individuals and employers.<sup>13</sup>

### **Plan Requirement**

Describe the type and amount of financial subsidy that will be offered. If company sponsored and subsidized vanpooling will be offered, describe who will oversee the program; will the company manage the program or outsource it to a provider.

## **6. Subsidized or Free Transit Passes**

Employers may wish to provide free or subsidized transit passes for employees. There are a number of ways to structure a financial incentive for transit. Employers/property owners can cover a portion or the total monthly cost of transit for those employees who take transit through a pre-tax benefit, purchase transit passes themselves and distribute them to employees, or offer a universal transit pass program.

Universal transit pass programs are different from financial incentives in that an employer or property owner purchases a pass for all employees/tenants, regardless of whether they currently ride transit or not. These passes typically provide unlimited transit rides on local or regional transit providers for a low monthly fee; a fee that is lower than the individual cost to purchase a pass as a bulk discount is given. Such programs are a more cost effective option for employers with regards to reducing vehicle trips as compared to purchasing individual passes.

Universal transit pass programs are much more effective at reducing vehicle trips than a standard transit subsidy. By providing all employees with this pass, employees who currently do not use transit will often try taking transit since there is no cost barrier to do so. Described below are two existing universal transit pass programs that cover the North Bayshore district.

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<sup>11</sup> For more information on federal tax regulations go to <http://www.irs.gov/pub/irs-pdf/p15b.pdf>

<sup>12</sup>Commuter Benefit Solutions <https://www.commutercheckdirect.com/> is a third party vendor than can oversee a commuter checks program

<sup>13</sup> For more information on services offered by Enterprise go to <http://www.enterpriserideshare.com/vanpool/en.html>

### **Caltrain Go Pass<sup>14</sup>**

The Caltrain Go Pass is an annual pass purchased by a company for its full-time employees. All employees receive the Go Pass, whether they use it or not. The passes are purchased from Caltrain at a significant discount and provide all employees with free Caltrain travel between all zones, seven days a week. The passes are non-transferable stickers applied directly to the Employee ID card to prevent cheating, which can otherwise be a problem with transit subsidies.

Currently the total cost of participating in the Go Pass program costs is the greater of \$180 per user or \$15,120. If there are 100 employees on-site then it would cost \$18,000 per year.

### **VTA Eco Pass<sup>15</sup>**

The Santa Clara Valley Transit Authority (VTA) offers a discounted transit pass program for employees. Similar to Caltrain's Go Pass program, the VTA's Eco Pass is an annual pass that is purchased by a company for its full-time employees. All employees receive the Eco Pass, whether they use it or not. The pass is valid for unlimited use on all VTA bus routes and light rail services. Employers pay an annual fee to provide the pass to full-time employees regardless of how many employees use the pass. The pass is a small sticker attached to a VTA-produced photo ID card and is presented as proof of payment.

The cost of the Eco Pass is based on the number of employees and the level of VTA services at a given worksite. If there are between 1 and 99 employees the annual cost per employee would be \$72. If there are between 100 and 2,999 employees the annual cost per employee drops in half to \$36. This is a significant discount from the cost of purchasing passes individually as annual adult passes range from \$770 to \$1,540, depending on the coverage area of the pass. The fee is based on each employer, thus the employer would be responsible for purchasing and distributing the pass.

### **Plan Requirement**

Describe the type and amount of transit subsidy that will be provided; either a universal transit pass(es) or direct subsidy.

## **7. Biking Financial Incentives**

Offering financial incentives can have a measurable impact on encouraging employees to try modes other than driving alone to work. Daily, weekly, or monthly financial incentives could be offered to those employees who use a bike as their primary mode of travel to work.

One example of a biking financial incentive is the Federal Bike Commuter Benefit<sup>16</sup> which lets bike commuters receive up to \$20 per month as a tax-free employer subsidy for riding to work. This benefit cannot be used in combination with the pre-tax transit benefit in the same month. Additional financial incentives beyond what can be taken tax-free may be appropriate to further encourage biking as a commute mode.

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<sup>14</sup> For more information on the Caltrain Go Pass program go to [http://www.caltrain.com/Fares/tickettypes/Go\\_Pass.html](http://www.caltrain.com/Fares/tickettypes/Go_Pass.html)

<sup>15</sup> For more information on VTA Eco Pass go to <http://www.vta.org/getting-around/fares/eco-pass>

<sup>16</sup> For more information go to <http://transerve.dot.gov/docs/bicyclepolicy.pdf>

### **Plan Requirement**

Describe the amount of the bike financial benefit that will be offered and any eligibility requirements.

## **8. On-Site Bike Repair Facilities**

Providing basic tools for keeping bikes in good working order can encourage commuters to try biking to work, and keep them riding. Bicycle repair facilities with hand tools and an air compressor for tires are a small investment that can keep bicycles in circulation and reduce parking demand that might otherwise be created by frustrated former bike commuters.

A simple do-it-yourself bicycle stand is an inexpensive investment that provides essential support for cyclists, including tire gauges, air pumps, and wrenches and other tools for minor repairs. A bicycle stand can fit in a small space in a parking garage or on the ground floor of a building.

In addition, a staffed on-site bike station could be provided which offers not only bike repair facilities and items for sale, but also a secure place for employees/tenants to store their bikes.

### **Plan Requirement**

Describe what type of bike repair facility will be offered, what tools will be provided for bicycle repair and where these tools will be located.

## **9. Bike Buddy Program**

Bicycling to work can be intimidating for commuters considering giving it a try. A Bike Buddy program pairs a beginning or novice bicyclist with an experienced rider who already knows safe routes and riding techniques. The buddies also provide “safety in numbers” on the road. In many cities, “bike trains” have become a popular way for bicyclists to commute, where a large group is organized to bike together on a common commuting route.

### **Plan Requirement**

Describe the structure of the program that will be offered and how it will be managed as well as marketed to encourage participation.

## **10. Bike Give Away Program**

Offer employees/tenants who bike to work a free bike. Employees/tenants must commit to biking to minimum number of day per week or month.

### **Plan Requirement**

Describe the structure of the program that will be offered and how it will be managed as well.

## **11. Expanded Carpool Matching**

While 511.org matches participants with other registered members throughout the Bay Area, employers/property owners may wish to create a ridematching system that is only open to a given building or employer as often people are hesitant to carpool with strangers. By creating a pool of

rideshare partners that are from the same company or building employees people may be more comfortable sharing a car ride.

Depending on the system used, it is possible for participants to share information about themselves which can also help facilitate matches. For example, [www.hov.ee/](http://www.hov.ee/) ridematching services allows participants to create profiles, that can be viewed by other participants, helping them to determine if this would be a person that they would feel comfortable carpooling with.

### **Plan Requirement**

Describe the type of expanding ridematching service that will be offered and who will manage the program.

## **12. Commuter Shuttle Services**

Commuter buses can be an efficient and cost-effective way to get employees to work. Currently the majority of transit trips in North Bayshore are made via private employer-sponsored shuttles. Typically these shuttles depart from locations convenient for a large amount of employees at a regularly scheduled time.

To make this option more attractive, many buses provide wi-fi, which allows employees to be productive during their commute. This option may require arranging space for passenger pick up in outlying areas or establishing stops in walkable areas proximate to residential communities. Where roadside park-and-ride parking is not available or at-capacity, perimeter parking spaces in shopping centers is often a viable option for weekday commuter parking.

Consideration for bus storage during the non-operational hours should be given.

### **Plan Requirement**

Describe the service that will be provided including routing, hours of operation, stop locations, frequency, and estimate the number of employees that will utilize the service.

Service may be provided directly by the applicant, in cooperation with another employer/property owner, or contracted out to a third party, such as the TMA. If the project applicant will be partnering with another employer/property owner, the applicant must provide a copy of the agreement the two entities have come to.

## **13. Car Sharing**

Car sharing provides members with access to a fleet of shared vehicles, enabling employees who do not drive to work to use a car during the day to run errands or make other trips. Employers/property owners can promote car sharing by providing spaces in their parking facilities, by providing free or subsidized memberships to employees/ tenants, and by promoting the service to employees. Currently, Zipcar operates in Mountain View. If Zipcar or another provider is not interested in locating in North Bayshore, an employer could provide access to company owned vehicles.

### **Plan Requirement**

Identify the number of car share vehicles that will be provided on-site and if these vehicles will be provided by an existing car share operator or by the employer/property owner. State if membership will be fully or partially subsidized for employees/tenants.

## **14. On-Site Amenities and Services**

Offering on-site amenities such as a coffee shop, cafeteria, post-office, dry cleaning, as well as other types of retail services can reduce the need for employees to make vehicle trips before or after work, as well as during the day. Reducing the need for these types of trips makes using other modes of transportation for commuter purposes more feasible.

### **Plan Requirement**

Describe the on-site amenities and service that will be provided.

## **15. Funding District Wide Services**

Project applicants may choose to fund programs or services that will benefit other employers and project sites; helping to reduce trips throughout the district.

### **Plan Requirement**

Describe the district-wide service that will be provided. Note how the proposed services will benefit other projects/sites and will help reduce vehicle trips at these off-site locations. Identify both one-time costs and on-going costs that will be covered and how long these services will be provided.

Describe the management structure of these services. Will they be provided by the project applicant, by a third party, or in partnership with the TMA or another entity?

## **16. Other TDM Measures**

Project applicants may choose to propose additional TDM measures that have not been identified in this document.

### **Plan Requirement**

Describe the proposed TDM measure and the anticipated vehicle trip reductions associated with the measure.

## CREATING A TDM PROGRAM

Project applicants should construct a TDM program that best meets the needs of their existing and future employees or tenants. The makeup of the existing or anticipated workforce will help shape what the correct approach to TDM will be for a given site. Thus, the composition of a TDM program will vary from applicant to applicant.

However, in order to provide project applicants with some guidance on how a TDM program could be structured to meet the trip cap, Figure 1 provides basic guidance on the relative impact of TDM measures on reducing vehicle trips. The relative impacts are based on industry research and past performance of TDM programs in similar contexts, but impacts in North Bayshore may vary depending on the specific travel patterns at each site.

This table is not meant to be a "checklist" for development of the TDM plan, but rather to help project applicants assess what combination of measures will best fit their site while at the same time be effective enough to reach the SOV target. The narrative of the TDM approach and its implementation will be essential to determining whether the proposed measures, as a package, will meet the trip cap.

Tier 1 programs are those measures that typically have the lowest impact on reducing vehicle trips. However, these measures are important supportive measures that when implemented jointly can leverage greater impacts when compared to stand-alone implementation. For example, a GRH program is not effective by itself, but can support other measures.

Tier 2 programs are those measures that typically have a moderate impact on reducing vehicle trips and Tier 3 programs are those measures that typically have the highest impact on reducing vehicle trips. Variable measures are those whose parameters are more general, making it impossible to assign them to a specific Tier.

Overall, it is important to remember that even within these three categories the actual impact of the program will be dependent on the specifics of the TDM program. For example, while charging for parking is a high impact program, charging \$5 per day for parking will have a noticeably larger impact on reducing vehicle trips than charging \$1 per day for parking. In addition, bike incentives may be more effective at a site that has a greater percentage of people living within biking distance to work.

**Figure 1      Relative Impact of Additional TDM Measures**

Measure		Description
<b>Tier 1 - Additional TDM Measures (Low)</b>		
1	Pre-tax Commuter Benefits	Offer employees the ability to pay for transit with pre-tax earnings
2	Bike Financial Incentives	Provide employees who bike with a financial incentive
3	On-Site Bike Repair Facilities	Provide bike repair facilities and tools on-site
4	Bike Buddy Program	Pair experienced bicycle riders with new bike commuters to get them more comfortable with biking to work
5	Car Sharing	Provide car share vehicles on-site
6	On-site Amenities	Offer on-site amenities such as retail or dining services
<b>Tier 2 – Additional TDM Measures (Moderate)</b>		
1	Subsidized or Free Carpooling/Vanpooling	Provide subsidies for carpools/vanpools or offer an employer/property owner sponsored vanpool program
2	Reduced Parking Supply	Provide less than the maximum allowable parking
3	Expanded Ridematching	Provide an expanded internal ridematching service for employees/tenants
<b>Tier 3 – Additional TDM Measures (High)</b>		
1	Parking Cash-Out	Provide employees who do not drive to work with a financial subsidy
2	Parking Pricing	Charge a fee for parking
3	Commuter Shuttle Services	Provide employee commuter shuttle services
4	Subsidized or Free Transit	Partially or fully subsidize the cost of transit passes. Or offer a universal transit pass program.
<b>Variable</b>		
1	District Wide Services	Funding of district-wide transportation/TDM services
2	Other TDM Measures	Other measures not identified in this document

## EVALUATION PROCESS

Given the unique context, workforce, and needs of each project, the evaluation of the submitted TDM Programs will focus on a qualitative and quantitative assessment of each package of measures. An assessment of how well suited the TDM program is to the anticipated workforce and the overall TDM approach will be made.

The evaluation will focus on the relative impact on vehicle trips as a package of programs, rather than attempting to evaluate the impacts of each individual measure. The reason for evaluating all the measures together is that TDM strategies often support one another and when implemented jointly can leverage greater impacts when compared to stand-alone implementation. Also, vehicle trip reductions are not cumulative given that some measures are mutually exclusive, such as transit and bicycling.

Lastly, while experiences in other jurisdictions and at other worksites provides a relative estimate of what groupings of will work to achieve the mode share target established in North Bayshore, it is impossible to know the exact impact of a proposed TDM program on the reduction of vehicle trips. Thus, on-going monitoring will enable the City and project applicant to see how well the proposed TDM program works in practice and to make adjustments if needed.



## 6 MONITORING AND ENFORCEMENT

In order to ensure that the district wide trip cap and project-level trip caps are not exceeded, the Precise Plan defines standards for monitoring vehicle trips.

### MONITORING REQUIREMENTS

At the project level, all new development or additions to buildings greater than 1,000 square feet will be subject to monitoring. Monitoring standards include the following:

- Annual vehicle trip counts and reports
  - Counts shall be conducted by a third party
  - Counts shall be taken over a 24-hour period over at least three days during a typical week (e.g., school is in-session, and dry weather)
  - A morning peak-hour trip count shall then be taken from the data
  - Vehicle counts shall be taken at all entry points to the property
- Participation in the TMA annual employee mode share survey. A 90% employee response rate must be obtained.

The first data collection effort must occur within a year after receiving a Certificate of Occupancy. Vehicle trip counts must be conducted annually during the same time period as the original data collection effort. After completing each data collection effort, individual employers/property owners must submit a report to the Community Development Department and the TMA with the following baseline information:

- Findings of the vehicle trip counts, noting if they are in compliance with the established vehicle trip cap.
- Their latest SOV rate from the TMA annual employee mode share survey
- A description of the TDM programs and services that are currently offered to employees/tenants

#### Plan Requirement

Provide a description of the annual monitoring and reporting program for the project site.

## ENFORCEMENT

Described below is the process if an individual employer/property owner exceeds their vehicle trip cap.

1. Upon the first occurrence of exceeding of their trip cap, the individual employer/property owner shall submit a revised TDM plan which identifies new programs or policies to address how the number of vehicle trips will be reduced to meet the target.
2. If after implementation of additional TDM programs or policies the subsequent annual vehicle trip count shows that the project still exceeds the trip cap, the City may assess the property owner a financial penalty.
3. The amount of the financial penalty will be determined based on the employer/property owner's TDM and penalty programs developed by the City.
4. Any TDM penalties will be paid to the TMA.
5. The City may consider whether the employer/property owner has made a good-faith effort to meet the TDM goals and may allow the employer/property owner a certain "grace period" time to implement additional TDM measures to meet their TDM goals.