



# PASSAGE TDM PLAN

Final

March 2020

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# 1 INTRODUCTION

The San Mateo Concar Shopping Center site is slated for a transit oriented mixed-use redevelopment. The project site proposes a wide variety of uses, including multi-family residential, a day care center, retail, performing arts space, grocery store, food hall, and publicly accessible open space. The project site will encompass the 14.5-acre (631,854 square feet) Concar Shopping Center site and surface parking lot. It is bounded by Concar Drive to the north, S. Grant Street to the east, Passage Way (currently proposed by the project) and State Route 92 to the south, and S. Delaware Street to the west. The site is surrounded by residential uses to the north along Concar Drive, hotel uses to the northeast, retail and office uses and a YMCA to the east along S. Grant Street, State Route 92 to the south, more office uses to the west along Delaware Street, and multi-family residential developments to the northwest.

Figure 1      Project Site



The proposed project includes 961 residential units (including 954 apartments and 7 live-work units), and 31,080 sf of residential amenities, including lounge areas, fitness and yoga centers,

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and bike depots. The project also includes approximately 40,000 sf of retail uses, including the "SEED" food hall, restaurant, retail, Peninsula Ballet Theatre administrative space, performance space, and a day care center. The Trader Joe's, 7-Eleven, and Peninsula Ballet Theatre will remain as tenants within reconstructed spaces. The day care center will be located in Building 5 along Grant Street (adjacent to the YMCA) and will include a 4,600 sf day care facility for 60-70 children.

In total, the Project will provide a net increase of 961 units and a net decrease of 125,600 sf commercial. The existing large surface parking area will be replaced with subterranean and ground-level parking that will be located below the new residential and retail uses, except the 17 surface parking spaces associated with the 7-Eleven.

Figure 2 Proposed Development

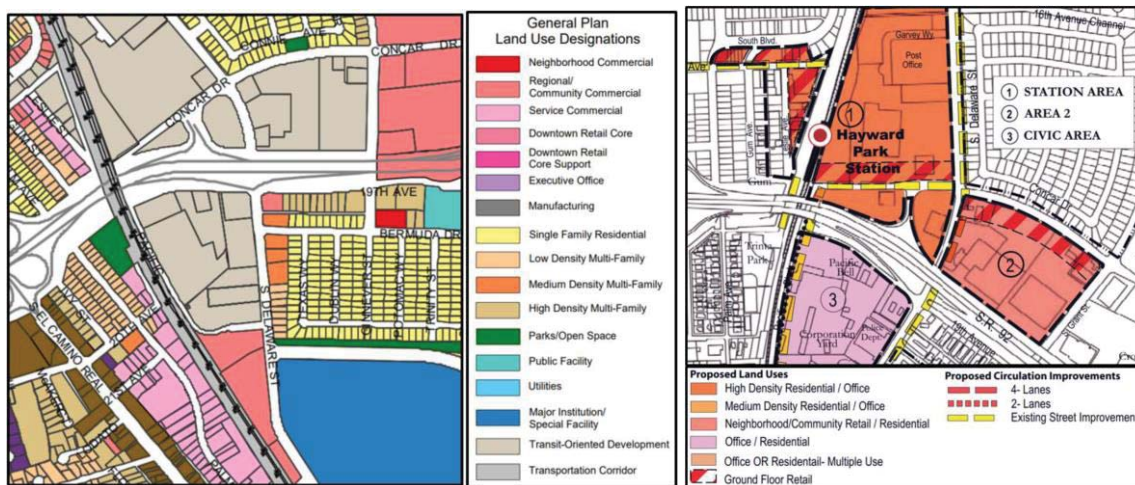


## 2 LAND USE AND MOBILITY CONDITIONS

### LAND USE

The site is designated as Transit-Oriented Development (TOD) by the San Mateo General Plan and has a zoning designation of TOD. The site is also located in Area 2 of the Hayward Park Station TOD Overlay Zone of the San Mateo Rail Corridor TOD Plan, with proposed uses of Neighborhood/Commercial Retail/Residential with Ground Floor Retail along Concar Drive and S. Delaware Street.

Figure 3 Left: General Plan Land Use Area; Right: Rail Corridor TOD Plan Land Use Area



### MOBILITY

The project will include a public/private mobility hub called The Depot. The goal of The Depot is to facilitate a non-auto dependent style of living for the residents of the site and its surrounding neighborhoods by providing access to several transportation options.

#### Pedestrian and Bicycle Access

Existing pedestrian facilities in the area are well provided and maintained. To increase accessibility to the site from surrounding neighborhoods, a new signalized intersection and crosswalk at the intersection of Depot Way and Concar Drive is planned into the project. The project also includes an enhanced connection to the 19th Avenue neighborhood to the north, the Snowflake, Medallia, and WeWork office to the west, and the YMCA/office buildings to the east.

Existing bicycle facilities connecting to the site consist mostly of on-road bike lanes that are typically suitable for the most confident types of bicycle riders. The facilities are well maintained.

Additional proposed facilities to improve pedestrian and bicycle access include protected bike intersections at Concar/Delaware and Concar/Grant, Class IV separated bike lanes on Concar Drive, Delaware St. and Grant St., and a mid-block pedestrian crossing on Grant Street.

## Vehicle Access

The proposed site plan includes vehicle access to the site from S. Delaware Street, Concar Drive and S. Grant Street with a private road (Depot Way) connecting Delaware and Concar. Delivery vehicle access is from Delaware Street and Grant Street with a private road connecting both streets through the site (Passage Way).

## Transit

### Caltrain

The Hayward Park Caltrain Station is less than 5-minutes walking distance (approximately 1250 feet) from the northwest corner of the site.

Figure 4 Caltrain Service Characteristics (Hayward Park Station)

Service	Service Days	Service Span	Typical Frequencies
100 Local	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 5:25 AM – 6:00 AM</li> <li>Midday: 9:36 AM – 4:13 PM</li> <li>Evening: 8:03 PM – 12:04 AM</li> </ul>	1 hour
200 Limited Stop	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 6:51 AM – 9:14 AM</li> <li>Evening: 4:54 PM – 7:12 PM</li> </ul>	1 hour
400 Local	Sat-Sun	<ul style="list-style-type: none"> <li>Saturday: 8:09 AM – 12:44 PM</li> <li>Sunday: 8:48 AM – 11:09 AM</li> </ul>	90 Minutes

The site is also within a 5-10-minute bicycling distance of both San Mateo and Hillsdale stations, which offer baby bullet train service in addition to local and limited options.<sup>1</sup>

Figure 5 Caltrain Service Characteristics (San Mateo and Hillsdale Stations)

Service	Station	Service Days	Service Span	Peak Frequencies
300 Baby Bullet (NB)	San Mateo	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 6:19AM, 7:24AM, 8:25AM</li> <li>Evening: <i>no evening bullet service*</i></li> </ul>	Hourly
	Hillsdale	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 6:44AM, 7:45AM, 8:45AM</li> <li>Evening: 5:20 PM, 6:20 PM</li> </ul>	Hourly
300 Baby Bullet (SB)	San Mateo	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: <i>no morning bullet service*</i></li> <li>Evening: 5:01PM, 6:01PM, 7:01PM</li> </ul>	Hourly
	Hillsdale	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 7:24AM, 8:24AM</li> <li>Evening: 4:36PM, 5:43PM, 6:44PM</li> </ul>	Hourly
200 Limited	San Mateo	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 7:18AM-8:39AM</li> <li>Evening: 5:15PM-7:26PM</li> </ul>	20-25-minute frequency at peak hour
	Hillsdale	Mon-Fri	<ul style="list-style-type: none"> <li>Morning: 6:34AM-8:54AM</li> <li>Evening: 5:15PM-7:55PM</li> </ul>	20-25-minute frequency at peak hour
800 Baby Bullet	San Mateo	Sat/Sun	<ul style="list-style-type: none"> <li>NB 10:32AM, 5:50PM</li> <li>SB 12:26PM, 7:56PM</li> </ul>	NA

<sup>1</sup> [http://www.caltrain.com/Assets/Assets/Schedules/CT\\_Pocket\\_Timetable\\_04-01-2019.pdf](http://www.caltrain.com/Assets/Assets/Schedules/CT_Pocket_Timetable_04-01-2019.pdf)

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	Hillsdale	Sat/Sun	<ul style="list-style-type: none"> <li>NB 10:27AM, 5:57PM</li> <li>SB 12:30PM, 8:00PM</li> </ul>	NA
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\*Note: All day local and limited service offered at these stations

### San Mateo-Norfolk Caltrain Shuttle

The San Mateo-Norfolk Caltrain Shuttle, operated by Commute.org, connects the Hillsdale Caltrain Station with various area office buildings, and residential areas of Lakeshore and Fiesta Gardens. The shuttle operates Monday through Friday during commute hours and is free to ride and open to the public. The nearest existing stop is at 800/900 Concar, about 1 block from the northeast corner of the site. The 400/450 Concar stop is 0.2 miles away from site and adjacent to the Hayward Park Station.

Figure 6 San Mateo-Norfolk Caltrain Shuttle Route



### SamTrans Bus

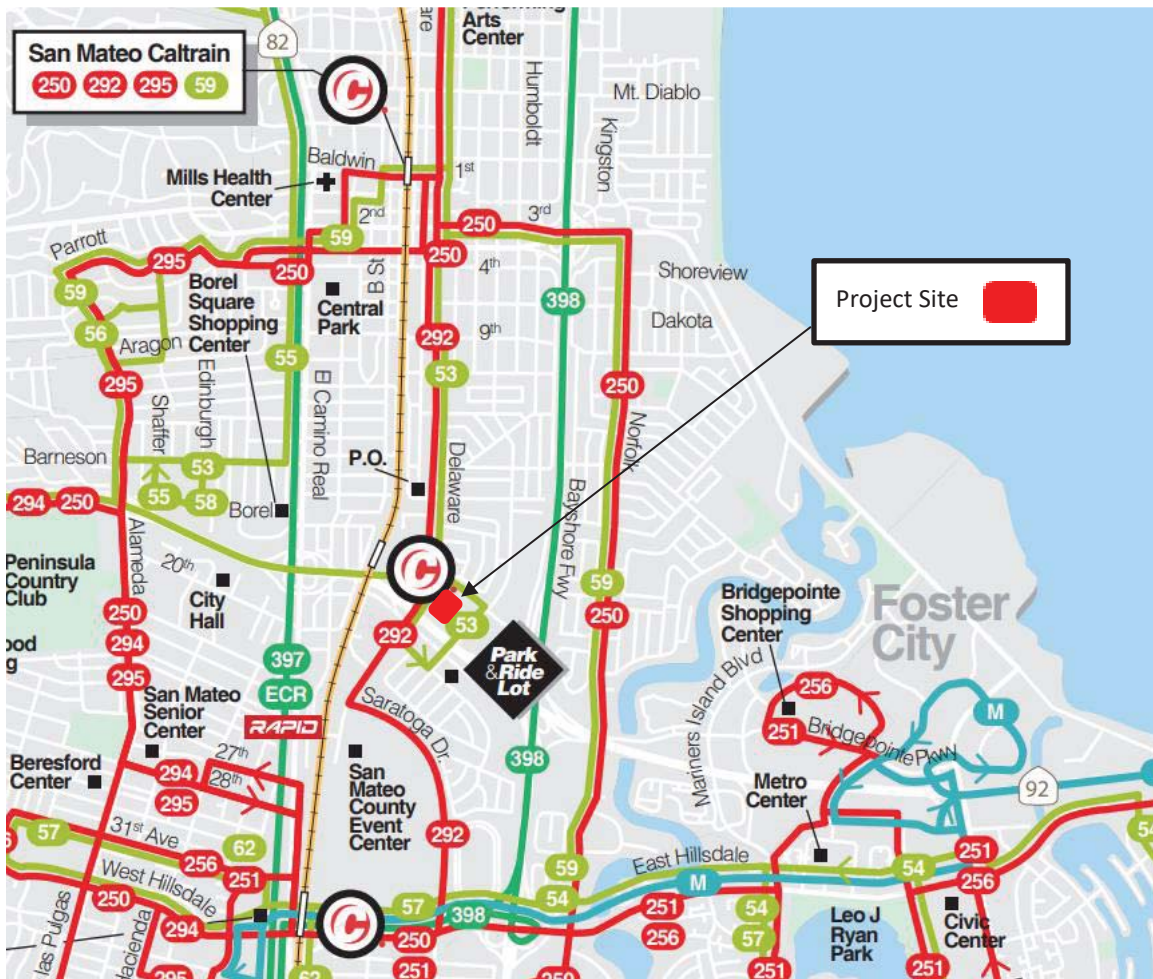
The site has direct connections to SamTrans Route 292 and Route 53. Both of the routes provide connections to downtown San Mateo. The service characteristics of Route 292, Route 53 and ECR are found in Figure 7 and the SamTrans bus route map is shown in Figure 8 on the following page.

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Figure 7 Route 292, 53 and ECR Service Characteristics

Route	Service Days	Service Span	Typical Frequencies
292	7-days	<ul style="list-style-type: none"> <li>Mon-Fri: 3:55 AM – 2:33 AM</li> <li>Sat-Sun: 4:00 AM – 2:23 AM</li> </ul>	<ul style="list-style-type: none"> <li>Peak: 30 mins</li> <li>Off-Peak: 60 mins</li> </ul>
53	Mon-Fri (school days only)	<ul style="list-style-type: none"> <li>AM (Mon-Fri): 7:19 AM – 7:48 AM</li> <li>PM (M,T,Th,F): 2:50 PM – 3:31 PM</li> <li>PM (Wed): 12:54 PM – 1:20 PM</li> </ul>	<ul style="list-style-type: none"> <li>AM: 2 trips</li> <li>PM: 3 trips</li> </ul>
ECR	7-days	<ul style="list-style-type: none"> <li>24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Weekdays: 20 mins</li> <li>Weekends: 30 mins</li> </ul>

Figure 8 SamTrans Peninsula Service Map



## Proposed Parking

In total, the project is planned to include 1598 parking spaces. This is expected to include 1,343 spaces for residential uses (including visitor parking), and 255 spaces for retail uses. The parking spaces planned by type are detailed in Figures 9 and 10 on the following page.

Figure 9 Planned Residential Parking Spaces

Building	Standard	Compact	Tandem	Accessible	Van Charging	EV Charging	Total
1	150	20	24	2	1	6	203
2	360	1	61	8	2	13	445
3	198	36	16	5	0	9	264
4	260	65	17	4	1	10	357
5	56	16	0	0	0	2	74
Total	1024	138	118	19	4	40	1343

Figure 10 Planned Commercial Parking Spaces

Building	Standard	Compact	Tandem	Accessible	Van Charging	EV Charging	Total
1	45	30	0	2	2	2	81
2	108	18	0	3	3	4	136
5	17	1	0	1	0	2	21
7-Eleven	15	0	0	0	1	1	17
Total	185	49	0	6	6	9	255

## Planned Circulation Improvements

- The project will provide two new private streets: Depot Way (900 feet in length and 28 feet wide) and Passage Way (850 feet in length and 26 feet wide).
- Sidewalk improvements are planned on S. Delaware Street, Concar Drive and S. Grant Street.

## Planned TDM Measures

The project proposes implementing the following transportation demand management TDM strategies, among others, in order to reduce trips and traffic impacts.

- High-quality pedestrian spaces
- Bike share hub
- Secure bicycle storage
- Ride-hailing credits
- Guaranteed Ride Home
- Public/Private shuttle program
- Transportation Information Center
- Transit passes

### 3 TRIP GENERATION THRESHOLD

Typical development projects use industry standard trip generation rates, such as from the Institute of Transportation Engineers, to estimate the new trips the project is expected to generate. This ignores site specific characteristics such as the reduction in vehicle trips associated with proximity to transit and the mix of land uses. Hexagon Transportation Consultants assessed the trip reductions associated with the mix of land uses and pass-by trips as of May 3, 2019 - this analysis has been approved by the City and will be used as the trip generation threshold for the project site.

The following tables summarize the existing trip counts carried out by Hexagon.

**Figure 11 Existing Use Trip Generation and Pass-By Reductions**

Land Use	Daily	AM	PM
General Commercial (Shopping Center)	5,250 (893)	259 (0)	525 (178)
Supermarket (Trader Joe's)	3,290 (592)	52 (0)	329 (118)
Convenience Store (7-Eleven)	820 (209)	94 (0)	82 (41)
<b>Total</b>	<b>4,357</b>	<b>405</b>	<b>599</b>

The following assumptions (Figure 12), based on the mixed-use nature of the proposed project, along with its location within the San Mateo transit-oriented development district, and walking distance (1,250 feet) to the Hayward Park Caltrain station, are used to determine the appropriate level of trip reduction for the Passage project through the use of the EPA's MXD model.

**Figure 12 Input for Mixed-Use Trip Generation Model**

Factor	Input Value	Source
Dwelling Units	961	Project description
General Retail	6.1 ksf	Project description
Supermarket	13.7 ksf	Project description
Convenience Store	3.1 ksf	Project description
Health Club	7.65 ksf	Project description
Restaurant	7.4 ksf	Project description
Developed Area	14.5 acres	Project plan
Number of Intersections (within or on the perimeter of the MXD)	4	Project plan
Is Transit (bus or rail) present within the site or across the street?	Yes	Project plan
Is the site in a Central Business District or TOD?	Yes	
Employment within one mile of the MXD	21,036	OnTheMap – Census.gov
Employment within a 30 minute Transit Trip	112,428	OnTheMap – Census.gov

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Based on the MXD model, a 15.0% trip reduction during the AM peak hour, a 16.3% trip reduction during the PM peak hour and an 17.8% daily trip reduction were applied to calculated trips generated by the proposed development. The following table summarizes the approved trip generation for the project.

**Figure 13 Proposed Use Trip Generation**

Land Use	Daily	AM Peak	PM Peak
Residential	5,228	346	423
Mixed-Use Reduction	(931)	(52)	(69)
General Commercial	117	3	12
Mixed-Use Reduction	(21)	(0)	(2)
Pass-By Reduction	(16)	(0)	(4)
Restaurant	2,332	15	105
Mixed-Use Reduction	(415)	(2)	(17)
Pass-By Reduction	(412)	(0)	(38)
Ballet/Performance	220	13	18
Mixed-Use Reduction	(39)	(2)	(3)
Day Care	219	51	51
Mixed-Use Reduction	(39)	(8)	(8)
Supermarket	3,940	62	394
Pass-By Reduction	(709)	(0)	(141)
Convenience Store	890	102	89
Pass-By Reduction	(227)	(0)	(45)
Unmitigated baseline (Gross New Trips)	12,946		
Total Mixed-Use and Pass-By Reductions	(2,809)		
<b>Total Proposed Use Trips</b>	<b>10,137</b>	<b>528</b>	<b>765</b>

## 4 PARKING DEMAND ANALYSIS

### INTRODUCTION & METHODOLOGY

The parking demand analysis for this study uses a parking model to estimate the parking needed for the Passage development which assumes that supply can be shared between land uses that have different parking demand profiles.<sup>2</sup> To model a “park-once” environment, Nelson\Nygaard used an adapted shared parking model using inputs from the Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005) and ITE's Parking Generation (5th Edition, 2019).

Nelson\Nygaard tailored the shared parking model for Passage to include a parking demand reduction for internal trip capture. Restaurants and retail services in particular are common generators of internally captured trips in mixed-use developments, as they serve both employees and residents within the same area. Finally, the shared parking model included the following land uses:

- Supermarket
- Convenience Market
- Generic retail
- Sit-down Restaurant
- Museum/Gallery
- Daycare center
- Low to Midrise apartments

### PARKING NEED

Figure 14 below summarizes the planned parking supply for the project as well as an estimate of parking demand with the application of shared parking principles given the multimodal nature of the project and the proposed mixed use development planned for the site.

Figure 14 Parking Demand Analysis

Category	Parking Supply	Peak Demand Forecast	Model Capacity (Buffer)	Design Capacity (Buffer)
Proposed Parking Supply (Passage)	1598	NA	NA	NA
NN Unshared Parking Demand Estimate	1441	1310	131	288
Unshared ITE Estimate	1420	1291	129	307
NN Parking Demand Estimate (with reductions*) <sup>4</sup>	1326	1205	121	393

Notes: Reductions include captive market effect and transit proximity. Reduction based on proposed TDM measures NOT included.

The parking demand analysis shows that ***the proposed parking supply (1598) exceeds the demand forecasted*** for the site due to reduction in parking demand expected from shared

<sup>2</sup> Model is based on Institute of Transportation Engineers (ITE) Parking Generation Manual (5th Edition, 2019) and Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005)

<sup>3</sup> Residential parking is included in the analysis to estimate overall parking demand forecast for the entire development but is not shared with the other land uses.

<sup>4</sup> Shared parking applied to all uses except residential.

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parking, in addition to benefits expected due to the proximity to multimodal transportation options (owed to the site's location in a transit-oriented planning zone).

The model capacity (buffer) column shows the parking supply buffer the model recommends for the site in excess of the forecasted parking demand for the project. The design capacity buffer shows that Passage is planning to exceed that buffer and will thus provide more parking supply than estimated to serve the expected parking demand for the proposed development. Figures 15, 16 and 17 illustrate the parking model demand for the Passage site under shared and unshared scenarios.

Figure 15 Weekday Modeled Parking Demand

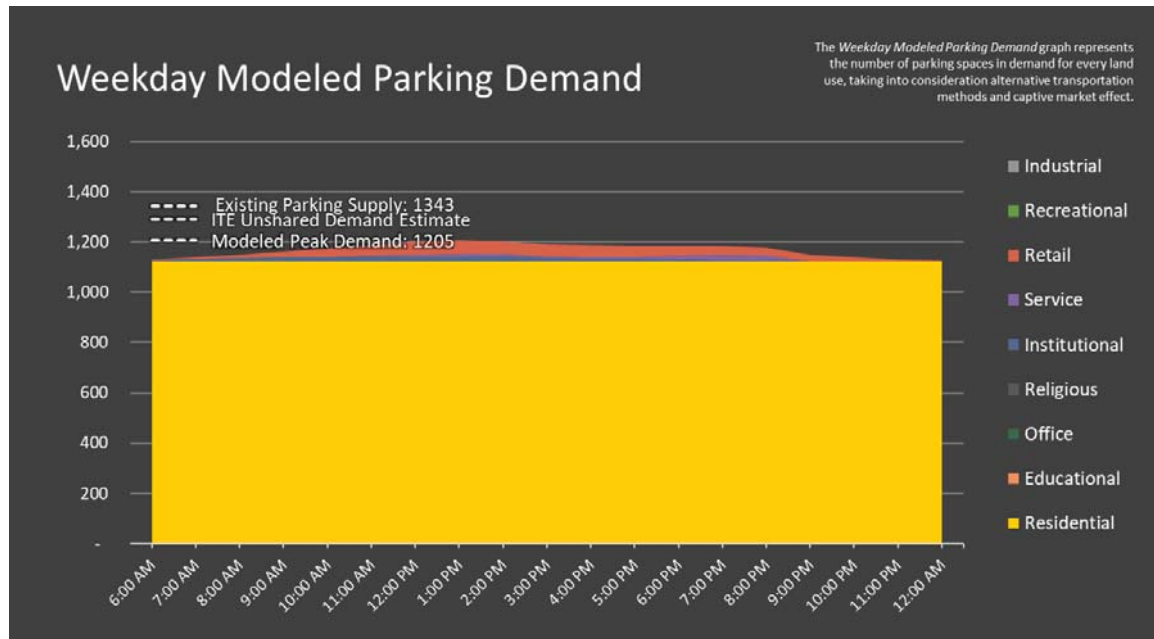


Figure 16 Weekday Shared Demand

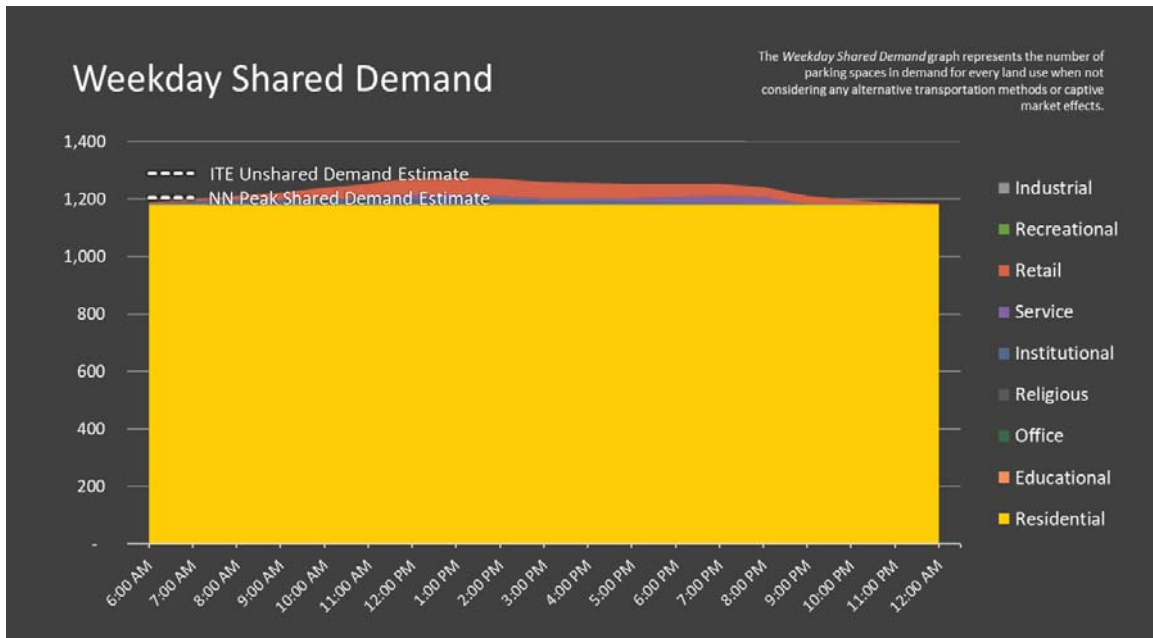
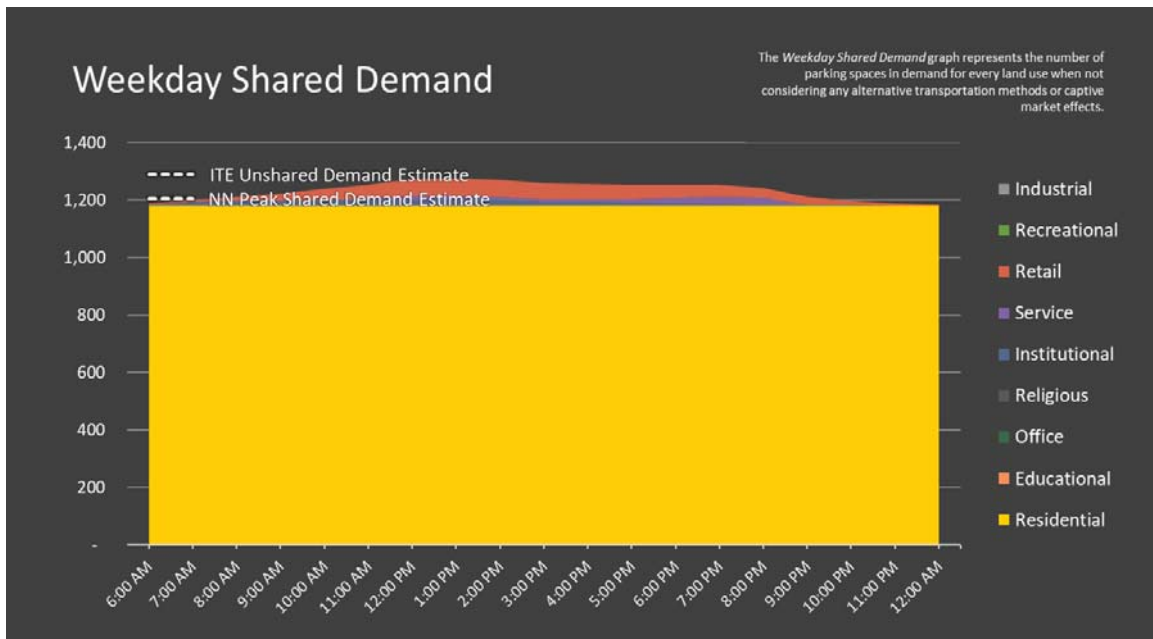


Figure 17 Weekday Unshared Demand



## 5 PASSAGE TDM TOOLKIT

The following section provides a list of applicable TDM measures for the project site, including brief descriptions of each TDM measure, and high-level California Air Pollution Control Officers Association (CAPCOA) mode-shift and VMT reduction estimates for each individual measure as well as their corresponding transportation strategy category.<sup>5</sup> The estimated impacts for each of the TDM measures assumes an individual application. However, cumulatively the strategies have a maximum impact depending on the strategy category. For more information about the impacts of TDM measures, see the Greenhouse Gas Mitigation Measures Quantification Report<sup>6</sup>, published by CAPCOA.

At the end of the chapter, Figure 18 describes at a high level how the TDM measures could be implemented, coordinated and offered at the site. It also clearly describes roles and responsibilities, associated costs and cost schedules, and identifies whether each the specific TDM measure is included in the proposed plans and/or if the TDM measure is required at the site.

### Project TDM Measures

This section describes in greater detail some of the key TDM measures referenced in this Plan.

#### Transportation Information Center

Transportation Information Centers provide tailored transportation information serving residents, tenants and visitors visiting the property. They are provided in physical and web-based formats, including bulletin boards, kiosks, websites and smart phone applications. Transportation Information Centers typically offer information about specific transit services, such as route maps and schedules and details about available TDM programs and services. More recently, real-time transportation information screens have played a role as an information center, displaying information about transit services, travel time by mode, and other alerts.

Mode Shift Potential = Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

#### Transportation Coordinator

Transportation coordinators are professionals who work for individual employers, property managers, or Transportation Management Associations, and are responsible for implementing, monitoring and coordinating TDM programs. Transportation coordinators are considered a key resource to provide residents, tenants and visitors with the information and tools to use TDM programs and services.

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<sup>5</sup> Please note this report was published in 2010, and does not include specific analysis for newer TDM measures. Also, TDM measures noted as “grouped” are separately documented in individual fact sheets in the CAPCOA report but are not individually assessed for their effectiveness is considered to be conditional upon their combination with other strategies.

<sup>6</sup> California Air Pollution Control Officers Association. <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

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Mode Shift Potential = Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

### **Guaranteed Ride Home**

A free ride home in the event of an emergency for commuters who do not drive to work. The free rides are commonly subsidized by a Transportation Management Association (TMA), but may also be provided by individual employers.

Mode Shift Potential = Low-Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

### **Incentive Program for Sustainable Transportation**

Project will partner with Commute.org for on-going promotion of sustainable transportation options and participation in the STAR platform. Project will sponsor monthly prize drawings for all participants to encourage use of non-SOV modes on an ongoing basis.

Mode Shift Potential = Low-Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

### **Subsidized Transit Passes**

Typically organized as a partnership between a transit agency and local employers, property managers, and/or organizations, subsidized transit pass programs provide a free or discounted transit pass to tenants and/or employees.

Mode Shift Potential = Low-High

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = 0.3-20.0%

### **Secure Bicycle Storage**

Secure bicycle storage provides bicyclists with security and convenience to park their bicycles. Bicycle storage options include both short-term and long-term options. Short-term options are intended for a duration less than 2 hours, and typically include bicycle racks, which are installed near building entrances or other key points of interest. Long-term options are best suited for parking durations of more than 2 hours, and may include lockers and racks in a secured, sheltered or enclosed area.

Mode Shift Potential = Low-Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

### **Bicycle Repair Facilities**

A fixed bicycle repair station allows bicyclists to fix or maintain their bicycles with communal access to bicycle repair equipment. Bicycle repair stations are commonly located in proximity to other bicycle facilities, such as bicycle racks, lockers, and bike share stations.

Mode Shift Potential = Low-Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

### **On-Site Car Sharing Vehicles**

In working with car sharing companies, developers and property managers can secure dedicated car share vehicles, providing direct access for their residents and tenants, reducing the need for personal vehicles. Car share vehicles are typically located in convenient and accessible locations.

Mode Shift Potential = Low

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = 0.4-0.7%

### **Daycare Service**

On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.

Mode Shift Potential = Low-Medium

CAPCOA Category = N/A

CAPCOA VMT Reduction Estimate = Reduction not quantified

### **High-Quality Pedestrian Connections**

To provide a safe and comfortable pedestrian experience, high-quality pedestrian connections are provided through a continuous, unobstructed, direct route between two points intended for pedestrian use, which usually include well-lit wide sidewalks, safe street crossings, with supportive wayfinding for pedestrians and protection from elements, such as shade trees along sidewalks. Pedestrian connections include but are not limited to sidewalks, walkways, and stairways.

Mode Shift Potential = Low-Medium

CAPCOA Category = Neighborhood/Site Enhancement

CAPCOA VMT Reduction Estimate = 0.0-2.0%

### **Bus/Shuttle Stop**

Bus and/or shuttle stops provide a dedicated place for passengers to board or alight from a bus or shuttle. Stops are typically marked with the name or information about the service serving the stop, and provides information about the route, schedule and other service details. The design of a stop may include a stop and a sign, a shelter, or may be grouped within a mobility hub. Individual bus stops are commonly located on a sidewalk next to the roadway or may be strategically grouped together in a hub.

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Mode Shift Potential = Medium

CAPCOA Category = Land Use/Location

CAPCOA VMT Reduction Estimate = Grouped Strategy (0.5 – 24.6%)

### **The Depot Mobility Hub**

A Mobility Hub provides a concentration of several mobility services, options and amenities, and offers connectivity among different travel modes, including walking, biking, transit, designated drop-off area for ride-hail services, and shared mobility. Mobility Hubs are typically located in a concentration of uses, including transit, employment, housing, recreation and retail.

Mode Shift Potential = Medium-High

CAPCOA Category = Land Use/Location

CAPCOA VMT Reduction Estimate = Grouped Strategy (0.5-24.6%)

### **Protected/ Separated Bicycling Facilities to Key Destinations**

Physically protected and separated bicycle lanes are exclusive bicycle facilities that provide a separation from motor traffic, parking lanes, and sidewalks, providing bicyclists a higher level of security. There are several variations to designing protected and separated bicycles lanes, at different levels (street, sidewalk, or intermediate), and can be separated by raised medians, on-street parking, or bollards.

Mode Shift Potential = Medium

CAPCOA Category = Land Use/Location

CAPCOA VMT Reduction Estimate = Grouped Strategy (6.7-20.0%)

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Figure 18 Project TDM Measures Implementation Parameters

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
Commute Trip Reduction							
Transportation Information Center	A transportation information center in the form of a real-time display, such as TransitScreen, should be a component in each building lobby and at The Depot. Displays should be provided at the entryways of each residential building.	X	X	TRT-1	Construction/Installation	One-Time	▪ Property Management
					Maintenance	As Needed	▪ Property Management
Guaranteed Ride Home	Coordinate the promotion of the Commute.org Guaranteed Ride Home program. Encourage all residents to sign up, and work with Commute.org to promote the program on-site.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Incentive Program for Sustainable Transportation	Project will partner with Commute.org for on-going promotion of sustainable transportation options and participation in the STAR platform. Project will sponsor monthly prize drawings for all participants to encourage use of non-SOV modes on an ongoing basis.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Transportation Coordinator	On-site coordinator available to residents and employees. Provide free commute planning assistance, information about programs and credits available, run incentive programs, and market project site to residents who want to live a TOD lifestyle.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Subsidized Transit Passes	Free or subsidized unlimited Caltrain and SamTrans rides can be provided for residents through participation in Caltrain's Go Pass and SamTrans Way2Go programs, which allows residential complexes to purchase annual unlimited-ride passes for all residents. This program is required to be offered to all eligible residents for a period of no less than three (3) years from date of initial occupancy. After the initial three years, an alternate TDM measure(s) may be proposed by the project for the City's consideration which achieves a similar or increased trip reduction. Project must track issuance of transit passes, promotion of program, and usage data during this time.		X	TRT-3	Benefit Cost	Monthly	▪ Property Management
					Operations/Management	Ongoing	▪ Property Management

### PASSAGE TDM PLAN

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
Secure Bicycle Storage	A high-quality access-controlled storage room for personal bicycles provided at each residential building.	X	X	SDT-7, LUT-9	Construction/Installation	One-Time	<ul style="list-style-type: none"><li>▪ Developer</li></ul>
					Maintenance	As Needed	<ul style="list-style-type: none"><li>▪ Property Management</li></ul>
					Operations/Management	Ongoing	<ul style="list-style-type: none"><li>▪ Property Management</li></ul>
Bicycle Repair Facilities	Free bicycle maintenance facilities for bikes owned by residents, provided at the Depot or within the long-term bike rooms.	X	X	SDT-7	Construction/Installation	One-Time	<ul style="list-style-type: none"><li>▪ Developer</li><li>▪ Property Management</li></ul>
					Maintenance	As Needed	<ul style="list-style-type: none"><li>▪ Property Management</li></ul>
On-Site Car Sharing Vehicles	There are no current rideshare vehicles within walking distance of the project site. Negotiate with a provider to add vehicles on site (at The Depot, if possible) to provide residents access to cars for short and long trips. Number of vehicles will be variable based on usage.	X	X	TRT-9	Operations/Management	Ongoing	<ul style="list-style-type: none"><li>▪ Vendor</li></ul>
Daycare Service	On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.		X	N/A	Operations/Management	Ongoing	<ul style="list-style-type: none"><li>▪ Property Management</li></ul>
Neighborhood/Site Enhancement							
High-Quality Pedestrian Connections	Provide high-quality pedestrian connections within Passage, and between Passage and key destinations including Hayward Park Station and Hillsdale Caltrain stations, and Downtown San Mateo.	X	X	SDT-1	Construction/Installation Maintenance	One-Time As Needed	<ul style="list-style-type: none"><li>▪ Developer</li><li>▪ Public Entity</li></ul>
							<ul style="list-style-type: none"><li>▪ Developer</li><li>▪ Public Entity</li></ul>
Land Use/Location							
Bus/Shuttle Stop	Provide a high-quality transit stop on site (at The Depot, if possible) in compliance with ADA+ existing transit system stop guidelines, to serve as a future mobility hub and designated area for pick-up/dropoffs. Provide funding for additional Commute.org shuttle service stop at the site, or		X	LUT-5	Construction/Installation	One-Time	<ul style="list-style-type: none"><li>▪ Property Management</li><li>▪ Transit Agency</li></ul>

### PASSAGE TDM PLAN

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
	for a private shuttle service to Hillsdale and/or Downtown Caltrain stations, and Millbrae BART. Shuttle schedules should be coordinated with train schedules, and should match arrival times, operating with approved 15 minute headways, and/or based on resident survey.				Maintenance	As Needed	<ul style="list-style-type: none"> <li>Transit Agency</li> </ul>
The Depot Mobility Hub	The Depot Mobility Hub is proposed to be centrally located and operate as a one-stop-shop for access to all mobility options and information. By concentrating mobility options, this will increase the opportunity to make connections between modes.	X	X	TRT-5	Construction/Installation	One-Time	<ul style="list-style-type: none"> <li>Developer</li> </ul>
					Operations/Management	Ongoing	<ul style="list-style-type: none"> <li>Property Management</li> </ul>
					Maintenance	As Needed	<ul style="list-style-type: none"> <li>Property Management</li> </ul>
Protected/ Separated Bicycling Facilities to Key Destinations	Construct bicycle infrastructure as defined in the 2020 Bicycle Master Plan. Specific projects will be discussed with the City.	X	X	SDT-5	Construction/Installation	One-Time	<ul style="list-style-type: none"> <li>Developer</li> <li>Public Entity</li> </ul>
					Maintenance	As Needed	<ul style="list-style-type: none"> <li>Public Entity</li> </ul>

## 6 ESTIMATED MITIGATION IMPACT

The Quantifying Greenhouse Gas Mitigation Measures report was prepared by the California Air Pollution Control Officers Association (CAPCOA) to further support the efforts of local governments to address the impacts of Greenhouse Gas emissions in their environmental review of projects and in their planning efforts. The mitigation measure emissions reduction benefits are estimated using commute trip and vehicle miles traveled reductions associated with the measures, which directly correlate to generated trips for large mixed-use development sites. Nelson\Nygaard examined the potential benefit associated with each TDM strategy included in the development proposal and assigned a likely trip reduction factor, as shown in Figures 19 and 20.

The reduction factors for each strategy overlap and are not additive, and CAPCOA has placed a maximum on the potential impact of a TDM program based the site's location and type of development. A maximum is applied to individual strategy categories, as well as a global maximum for combinations among several categories. Based on this site's location, the site is designated as Suburban Center, which means that the maximum impact of a TDM program will be 20%.

## PASSAGE TDM PLAN

Figure 19 Trip Reduction Benefit – Proposed TDM Strategies

TDM Measure	Comment	CAPCOA Range of Effectiveness	CAPCOA Reference	Effectiveness Estimate for Passage
Commute Trip Reduction (Max Reduction 15%)				
Transportation Information Center	If provided, a transportation information center in the form of a real-time display, such as TransitScreen, should be a component of The Depot. Displays should be provided at the entryways of each residential building.	Medium	TRT-1	5.40%
Guaranteed Ride Home	Coordinate the promotion of the Commute.org Guaranteed Ride Home program. Encourage all residents to sign up, and work with Commute.org to promote the program on-site.	Low-Medium		
Subsidized Transit Passes	Free or subsidized unlimited Caltrain and SamTrans rides can be provided for residents through participation in Caltrain's Go Pass and SamTrans Way2Go programs, which allows residential complexes to purchase annual unlimited-ride passes for all residents for the life of the project.	Low-High	TRT-4	3.40%
Secure Bicycle Storage	A high-quality storage room for personal bicycles provided at each residential building.	Low-Medium	TRT-5	1.25%
Bicycle Repair Facilities	Free bicycle maintenance facilities for bikes owned by residents, provided at the Depot or within the long-term bike rooms.			
On-Site Car Sharing Vehicles	There are no current rideshare vehicles within walking distance of the project site. Negotiate with a provider to add vehicles on site (at The Depot, if possible) to provide residents access to cars for short and long trips. Number of vehicles will be variable based on usage.	Low	TRT-9	0.55%
Daycare Service	On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.	Low-Medium	N/A	N/A
Neighborhood/Site Enhancement (Max Reduction 5%)				
High-Quality Pedestrian Spaces	Provide high-quality pedestrian connections within Passage, and between Passage and key destinations including Hayward Park Station and Hillsdale Caltrain stations, and Downtown San Mateo. Provide funding for additional Commute.org shuttle service stop at the site, or for a private shuttle service to Hillsdale and/or Downtown Caltrain stations, and Millbrae BART. Shuttle schedules should be coordinated with train schedules, and should match arrival times, operating with approved 15 minute headways, and/or based on resident survey.	Medium	SDT-1	2.00%
Land Use/Location (Max Reduction 10%)				
Bus/Shuttle Stop	Provide a high-quality transit stop on site (at The Depot, if possible) in compliance with ADA+ existing transit system stop guidelines, to serve as a future mobility hub and designated area for pick-up/drop-offs.	Medium	LUT-5	7.84%
The Depot Mobility Hub	The Depot Mobility Hub should be centrally located and operated as a one-stop-shop for access to all mobility options and information. By concentrating mobility options, this will increase the opportunity to make connections between modes.	Medium-High		
Protected/Separated Bicycling Facilities to Key Destinations	Construct bicycle infrastructure as defined in the 2020 Bicycle Master Plan. Specific projects will be discussed with the City.	Medium	LUT-8	0.63%
Total Reduction				20%