

TRANSPORTATION ANALYSIS

ATTACHMENT 5

to the
439 Eccles Avenue Project Environmental Checklist

439 Eccles Transportation Impact Analysis

FEHR  PEERS

Prepared for:
Vigilant Holdings and City of South San Francisco
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1. Introduction

1.1 Project Description

This transportation impact analysis (TIA) evaluates potential transportation impacts associated with the 439 Eccles development in South San Francisco (referred to as the "Project"). The Project is located approximately 700 feet north of the intersection of Forbes Boulevard and Eccles Avenue and presently has an unoccupied one-story, 40,224 square-foot warehouse building. The Project would replace the existing land use with a seven-story, 298,470 square-foot office/R&D building with one below-grade basement level and a six-story parking garage. The proposed parking structure includes 448 proposed stalls.

Figure 1 shows the Project location. **Figure 2** presents the Project site plan.








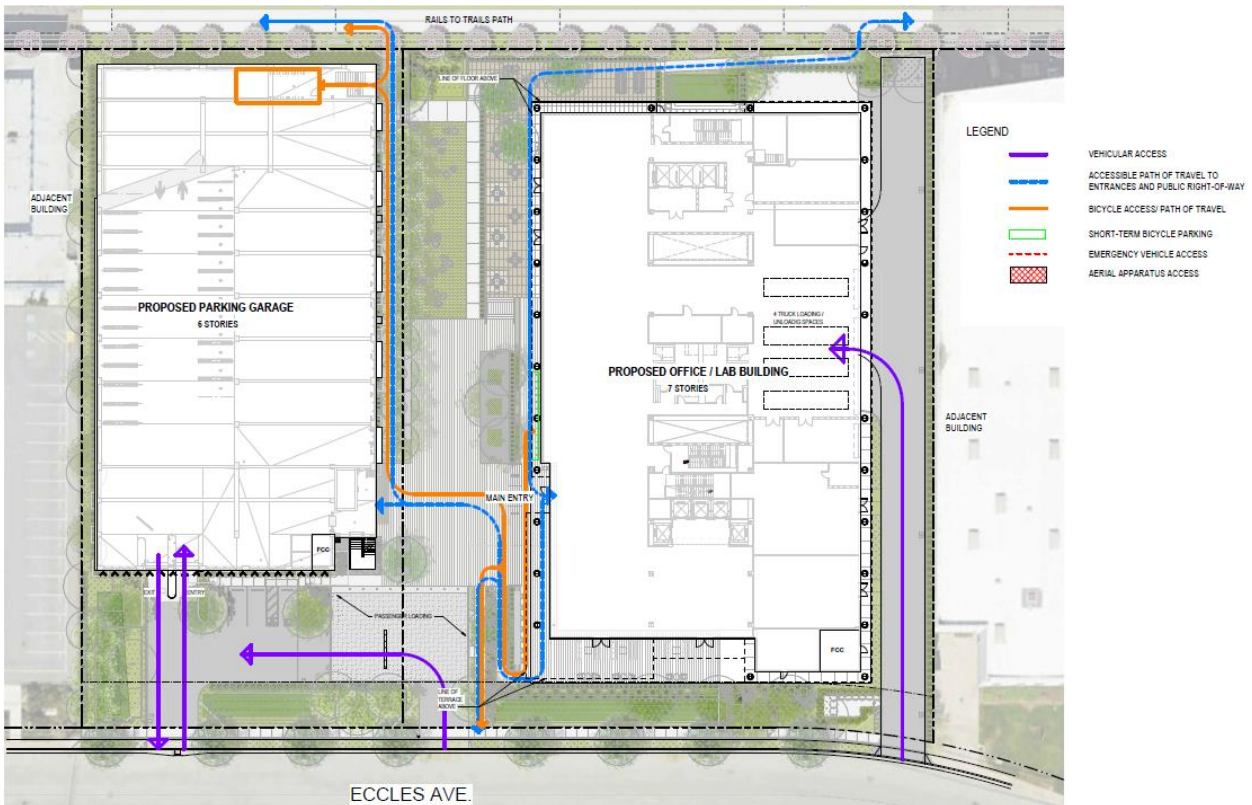
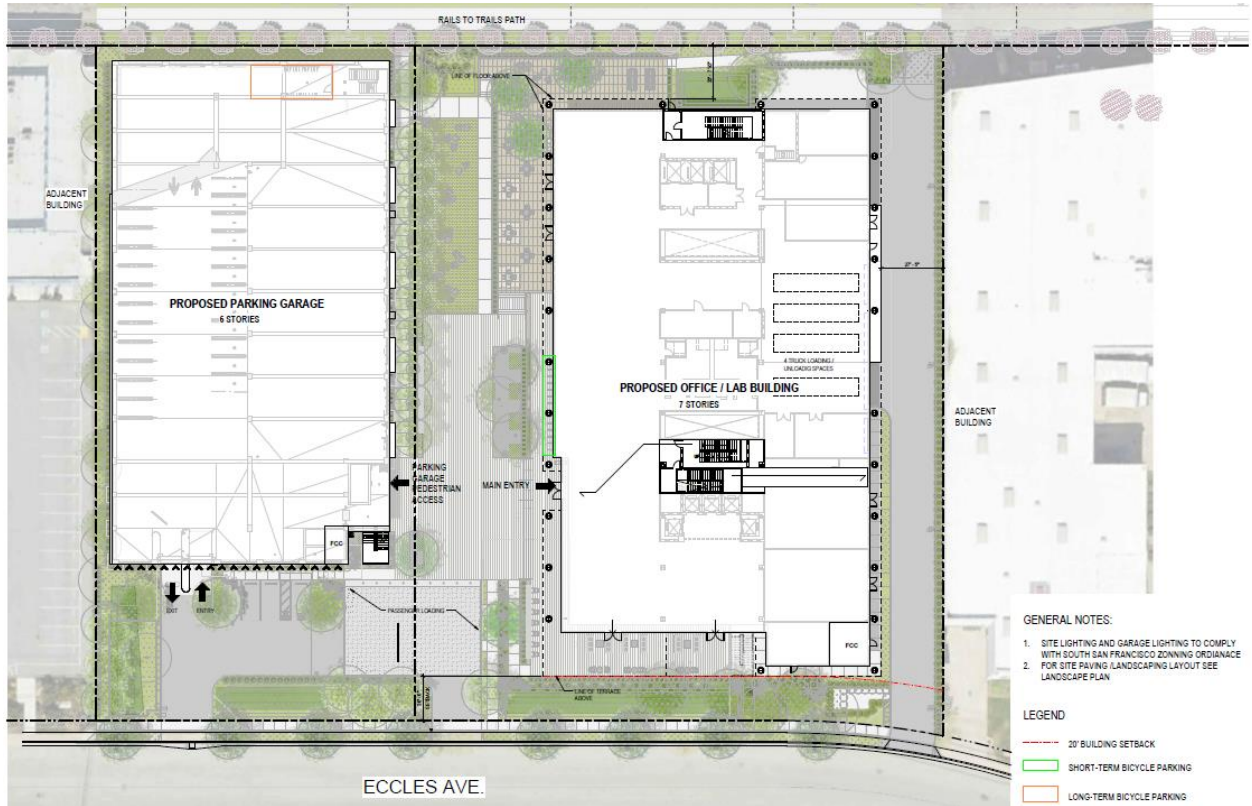
-  Project Site
-  Caltrain Station
-  Ferry Terminal



Figure 2. Project Site Plan & Circulation Diagram



1.2 Thresholds of Significance

The Project related transportation impacts will be considered significant under the California Environmental Quality Act (CEQA) if any of the following Standards of Significance are exceeded, per Appendix G of the CEQA Guidelines:

- Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Generate per-employee vehicle miles traveled (VMT) greater than the City's adopted threshold of 15 percent below the regional average, according to CEQA Guidelines Section 15064.3, subdivision (b) and City of South San Francisco Resolution 77-2020 related to VMT;
- Substantially increased hazards due to a geometric design feature or incompatible uses; or
- Result in inadequate emergency access.

The criteria of significance apply to all Project scenarios as measured against the corresponding No Project scenarios.

1.3 Report Organization

This transportation impact analysis includes the following sections focused on topics relating to the CEQA Thresholds of Significance described in the previous section. These topics are grouped into three sections:

- Environmental Setting: An overview of the existing roadway, transit, bicycle, and pedestrian networks, along with current transportation plans and policies.
- Project Analysis: A summary of the Project's transportation demand management (TDM) program, trip generation, distribution, and assignment, and vehicle miles traveled.
- Impacts and Mitigations: An analysis of the Project's impacts and mitigations in relation to the thresholds of significance.

A local transportation analysis is presented in Section 5 for informational purposes consistent with the City of South San Francisco's Transportation Impact Analysis Guidelines, accompanied by suggested conditions of approval.



2. Environmental Setting

This section describes the existing transportation and circulation setting near the Project site: the existing roadway network, transit network and service, pedestrian conditions, bicycle conditions, and emergency vehicle access.

2.1 Roadway Facilities

The Project site is located on the north side of Eccles Avenue near the intersection of Eccles Avenue and Forbes Boulevard. Regional access to the Project site is provided via US 101, accessed via Oyster Point Boulevard to the north and East Grand Avenue via Forbes Boulevard and Eccles Avenue to the south. Vehicular access is provided via three driveways on Eccles Avenue.

The following roadways are located near the Project site:

- Eccles Avenue is a two-lane north/south road that connects Forbes Boulevard to Oyster Point Boulevard.
- Forbes Boulevard is a two- to four-lane east/west road that runs between East Grand Avenue and the San Francisco Bay
- Oyster Point Boulevard is an east-west arterial roadway that connects US 101 with the Oyster Point Marina. It has four to six travel lanes.
- East Grand Avenue is an east/west arterial street that runs between US 101 and the San Francisco Bay. It has four to six travel lanes.
- US 101 is an eight-lane freeway and principal north-south roadway connection between San Francisco, San José, and the Peninsula. US 101 is located approximately 0.6 miles west of the Project site and has two primary interchanges at Oyster Point Boulevard and East Grand Avenue.
- Corporate Drive is a two-lane east/west street that connects Gateway Boulevard in the west to Forbes Boulevard in the east. The Corporate Drive/Forbes Boulevard intersection is unsignalized, right-in/right-out only.

2.2 Transit Facilities and Service

The Project site is located within walking distance of shuttle and bus service, while regional rail and ferry service may be accessed via first/last mile shuttles. Existing transit services are shown in **Figure 3** and described below.

2.2.1 Regional Transit Service

The following transit services operate within South San Francisco and are accessible from the Project site.



- BART provides regional rail service between the East Bay, San Francisco, and San Mateo County. The South San Francisco BART Station is located approximately 2.7 miles west of the Project site. Two BART lines serve South San Francisco Station: the Yellow Line connecting Antioch with San Francisco International Airport, and the Red Line connecting Richmond and Millbrae. Both lines travel to the East Bay via San Francisco. Each BART line operates every 15 minutes throughout the day.
- Caltrain provides passenger rail service on the Peninsula between San Francisco and San José, and limited service to Morgan Hill and Gilroy during weekday commute periods. The South San Francisco Caltrain Station serves local and limited trains, with approximately 30 minute headways during peak times and 60 minute headways during off-peak times. Station access to the East of 101 area is located at the intersection of East Grand Avenue/Poletti Way. The Caltrain Station is located approximately 0.5 miles to the west of the Project site. In 2024, Caltrain plans to complete its electrification Project to support the operation of faster and more frequent rail service on the Peninsula.
- The Water Emergency Transportation Authority (WETA) provides weekday commuter ferry service between the Oakland/Alameda ferry terminals and the South San Francisco Ferry Terminal. There are three morning departures from Oakland/Alameda to South San Francisco, and three evening departures from South San Francisco to Oakland/Alameda. The Ferry Terminal is located approximately 1 mile to the northeast of the Project site.
- SamTrans provides local bus services in San Mateo County. SamTrans Route 130B connects the East of 101 employment area and South San Francisco Ferry Terminal to downtown South San Francisco and Daly City via Oyster Point Boulevard and Gateway Boulevard. Route 130B operates every 30 minutes throughout the day. The nearest stop is located at 700/701 Gateway Boulevard and has a sheltered bus stop in each direction.

2.2.2 East of 101 Commuter Shuttle Service

Commute.org and Oyster Point Mobility provide weekday commute period first/last mile shuttles connecting employers with BART, Caltrain, and the ferry. All shuttles operate along Gateway Boulevard, Oyster Point Boulevard, and East Grand Avenue; there are no shuttles with stops along Eccles Avenue or Forbes Boulevard. The following shuttles operate near the Project site (as summarized in **Table 2.1**):

BART Service

Commute.org operates the Utah-Grand BART Shuttle between the South San Francisco BART Station and East Grand Avenue corridor via Gateway Boulevard. Shuttles run every 30 minutes during peak commute periods. The nearest southbound/eastbound stop is located at 701 Gateway Boulevard, while the nearest northbound/westbound stop is located at 1000 Gateway Boulevard. A second Commute.org shuttle operates along Oyster Point Boulevard with similar frequency and service span.

Oyster Point Mobility operates a shuttle service between the Glen Park BART Station to the Genentech Campus via Gateway Boulevard. Shuttles run every 15 minutes during peak commute periods and every 30



minutes during the midday period. The nearest stop is located at the intersection of Gateway Boulevard and Corporate Drive approximately one quarter-mile from the Project site.

Caltrain Shuttle Service

Commuter.org operates the Oyster Point Caltrain Shuttle between the South San Francisco Caltrain Station and Oyster Point Boulevard corridor via Gateway Boulevard. Shuttles run every 30 minutes during peak commute periods. The nearest southbound/westbound stop is located at 701 Gateway Boulevard, while the nearest northbound/eastbound stop is located at 1000 Gateway Boulevard.

Oyster Point Mobility operates a shuttle service between the Millbrae Caltrain Station to the Genentech Campus via Gateway Boulevard. Shuttles run every 30 minutes during peak commute periods. The nearest stop for the morning peak period service is located approximately 600 feet away along Gateway Boulevard, while the nearest evening peak period shuttle stop is located at the intersection of Gateway Boulevard and Corporate Drive approximately one quarter-mile from the Project site.

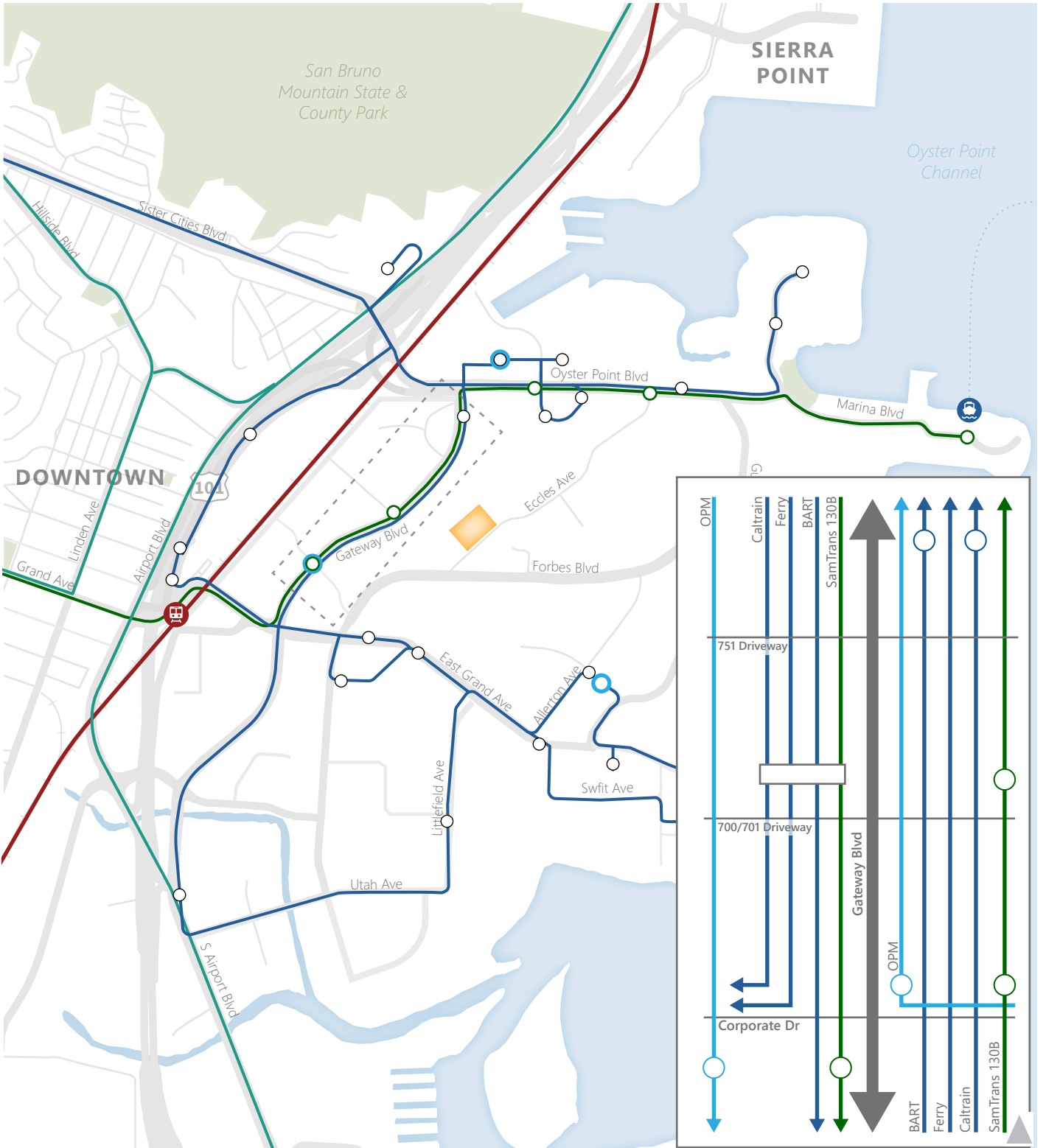
Ferry Shuttle Service





Commuter.org operates the Oyster Point Ferry Shuttle between the South San Francisco Ferry Terminal and South San Francisco Caltrain Station via Gateway Boulevard. Shuttles run hourly during peak commute periods. The nearest southbound/westbound stop is located at 701 Gateway Boulevard, while the nearest northbound/eastbound stop is located near the Oyster Point Boulevard/Gateway Boulevard intersection.





Table 2.1 Bus/Shuttle Stop Summary (Fall 2023)

Stop Direction	Northbound Stop Locations			Southbound Stop Locations	
	1000 Gateway	700 Gateway	Gateway/Corporate	701 Gateway	Gateway/Corporate
SamTrans 130B		✓	✓		✓
Commuter.org Utah/Grand BART	✓			✓	
Commuter.org Oyster Point Caltrain	✓			✓	
Commuter.org Oyster Point Ferry				✓	
Oyster Point Mobility Glen Park BART			✓		✓
Oyster Point Mobility Millbrae Caltrain			✓		✓





-  Caltrain Alignment and Station
-  SamTrans Routes
-  SamTrans Route 130B and Stops
-  South San Francisco Ferry Terminal

-  Oyster Point Mobility Shuttle Route and Stops
-  Commute.org Shuttle Stops
-  Commute.org Shuttles
-  Project Site



2.3 Bicycle and Pedestrian Facilities

2.3.1 Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, trails, and pedestrian signals. Pedestrian facilities near the Project site tend to serve walking trips connecting to shuttle and bus stops along with nearby offices and businesses. The following pedestrian facilities exist near the Project site:

- Eccles Avenue has a sidewalk on the north side of the street that provides direct pedestrian access to the Project site. There is no sidewalk on the south side of Eccles due to the freight railroad.
- On the northern frontage of the Project site, there is an under-construction multi-use trail running between Forbes Boulevard to the south and Oyster Point Boulevard to the north that will provide access to the Project Site.
- Forbes Boulevard has a sidewalk on the north side of the street. There is no sidewalk on the south side of Forbes Boulevard.
- Gateway Boulevard has sidewalks on both sides of the street.
- Oyster Point Boulevard has sidewalks on both sides of the street

Although the Project site is located only 700 to 900 feet from bus/shuttle stops at 700/701 Gateway Boulevard, no direct pedestrian connection is present (a retaining wall blocks access via the Gateway of the Pacific site). Pedestrians may divert to the north via the Gateway of the Pacific site, but this adds approximately 1,600 feet (about six minutes) of walking distance to reach the stop. Due to asymmetry in the northbound/southbound stops, the nearest northbound shuttle stop is presently located 2,200 feet to the north in front of 1000 Gateway Boulevard.

2.3.2 Bicycle Facilities

Bicycle facilities consist of separated bikeways, bicycle lanes, routes, trails, and paths, as well as bicycle parking, bicycle lockers, and showers for cyclists. The California Department of Transportation (Caltrans) recognizes four classifications of bicycle facilities as described below.

Class I – Shared-Use Pathway: Provides a completely separated right-of-way for the exclusive use of cyclists and pedestrians with crossflow minimized (e.g., off-street bicycle paths).

Class II – Bicycle Lanes: Provides a striped lane for one-way travel on a street or highway. May include a “buffer” zone consisting of a striped portion of roadway between the bicycle lane and the nearest vehicle travel lane.

Class III – Bicycle Route: Provides for shared use with motor vehicle traffic; however, these facilities are often signed or include a striped bicycle lane.

Class IV – Separated Bikeway: Provides a right-of-way designated exclusively for bicycle travel adjacent to a roadway that is protected from vehicular traffic. Types of separation



include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Current bicycle facilities in the Project vicinity as designated by the Active South City Plan are shown in **Figure 4** and discussed below.

- There are currently no bike facilities on Eccles Avenue. Class II buffered bicycle lanes are planned on Eccles Avenue from Forbes Boulevard to Oyster Point Boulevard.
- The under-construction Class I trail on the Project site's northern frontage will provide an off-street bicycle connection between the Project site, Oyster Point Boulevard, and Forbes Boulevard as a part of the Gateway of the Pacific development. The Class I trail will eventually connect to the South San Francisco Caltrain Station via Forbes Boulevard and East Grand Avenue.
- Forbes Boulevard has Class II bicycle lanes between Allerton Avenue and DNA Way. An extension of the Class II bike lanes between Eccles Avenue and Allerton Avenue is planned (connecting to the Class I trail mentioned above).
- Gateway Boulevard is a Class III bicycle route from East Grand Avenue to Oyster Point Boulevard and has Class II bike lanes planned from East Grand Avenue to Oyster Point Boulevard.
- East Grand Avenue has Class II bicycle lanes from the South San Francisco Caltrain Station to the San Francisco Bay. A Class I shared path is planned on East Grand Avenue from Forbes Boulevard to the South San Francisco Caltrain Station.
- Oyster Point Boulevard has Class II bicycle lanes from Gateway Boulevard to Marina Boulevard. A planned extension of Class II bicycle lanes across US 101 to Sister Cities Boulevard is planned on Oyster Point Boulevard.

2.4 Emergency Response

The City of South San Francisco provides primary emergency response services to the Project site. The nearest fire station to the Project is Fire Station 62 located at 249 Harbor Way, approximately 0.5 miles south of the Project site. The South San Francisco Police Department is located 2 miles to the west of the Project site at 1 Chestnut Avenue. The Kaiser Permanente South San Francisco Medical Center is located at 1200 El Camino Real approximately 2.4 miles west of the Project site.





- | | | | | | |
|--|-------------------------------------|--|------------------------------------|--|--------------------------------------|
| | Existing Class I Shared Path | | Planned Class I Shared Path | | South San Francisco Ferry Terminal |
| | Existing Class II Bicycle Lane | | Planned Class II Bicycle Lane | | South San Francisco Caltrain Station |
| | Existing Class III Bicycle Route | | Planned Class III Bicycle Route | | Project Site |
| | Existing Class IV Separated Bikeway | | Planned Class IV Separated Bikeway | | |



2.5 Transportation Plans & Policies

2.5.1 General Plan

The South San Francisco 2040 General Plan establishes a vision for the City’s future growth. Its Circulation Element includes goals, policies, and actions covering topics such as complete streets, vehicle miles traveled, connectivity, safety, transit, active transportation, TDM, and parking. Each goal is presented in **Table 2.2**, accompanied by policies and actions that are particularly relevant the Project:

Table 2.2 South San Francisco General Plan Mobility Goals, Policies, and Actions

#	Goal	Project-Related Policies & Actions
1	South San Francisco prioritizes safety in all aspects of transportation planning and engineering.	<p>Policy MOB-1.2: Strive to reduce vehicle speeds throughout the city to reduce the frequency and severity of collisions.</p> <p>Action MOB-1.2.1: Incorporate traffic calming treatments into all street Projects to support lower design speeds.</p>
2	South San Francisco provides a multimodal network with convenient choices for everyone.	<p>Policy MOB-2.1: Incorporate complete streets improvements into all roadway and development Projects.</p> <p>Action MOB-2.1.1: <i>Complete multimodal design and impact analysis.</i> Ensure that roadway and development Projects are designed and evaluated to meet the needs of all street users, and that development Projects contribute to multimodal improvements in proportion to their potential impacts on vehicle miles traveled.</p> <p>Action MOB-2.1.3: <i>Implement Active South City Pedestrian and Bicycle Plan.</i> All capital improvements and development Projects incorporate bicycle and pedestrian improvements identified in the Active South City Plan, such as trails, bikeways, bicycle detection at traffic signals, high-visibility crosswalks, and pedestrian-oriented site plans.</p> <p>Action MOB-2.1.4: Implement transit speed, reliability, and access improvements. All capital improvements and development Projects near regional transit stations or bus/shuttle routes incorporate improvements to advance speed, reliability, and access, such as in-lane far side bus stops, bus-only lanes, queue jumps, and pedestrian/bicycle gap closures.</p>



#	Goal	Project-Related Policies & Actions
3	South San Francisco proactively manages traffic and parking demand.	<p>Policy MOB-3.1: Promote mode shift among employers. Manage the number of vehicle trips, with a focus on promoting mode shift among employers.</p> <p>Policy MOB-3.2: Optimize traffic operations on City streets. Optimize traffic operations on City streets while avoiding widening roadways or otherwise pursuing traffic operations changes at expense of multimodal safety, transit reliability, or bicycle and pedestrian comfort.</p> <p>Policy MOB-3.3: Right-size parking supply and maximize the efficiency of curb space.</p> <p>Action MOB-3.3.1: <i>Incorporate parking maximums.</i> Incorporate maximum parking requirements for new residential and office/R&D Projects that align with TDM Ordinance trip reduction goals.</p>
4	South San Francisco’s land use and transportation actions reduce vehicle miles traveled (VMT) and greenhouse gas emissions.	<p>Policy MOB-4.1: Increase substantially the proportion of travel using modes other than driving alone.</p> <p>Action MOB-4.1.1: <i>Use site plan review to improve connectivity.</i> Use the development review process to identify opportunities to enhance bicycle, pedestrian, and transit connectivity.</p>
5	South San Francisco residents have easy access to play, fitness, and active transportation networks.	<p>Policy MOB-5.1: Expand the low-stress bike and pedestrian network. Capitalize on opportunities to expand the low-stress bike and pedestrian network throughout the city.</p>

2.5.2 Active South City Plan

The Active South City Plan identifies priority Projects and policies to improve bicycle and pedestrian access through the city. The plan proposes an additional 50 miles of bike facilities for the network. The Active South City proposes Class II buffered bicycle lanes on Eccles Avenue and Class I shared use paths on Forbes Boulevard and East Grand Avenue. The plan also provides design guidance for pedestrian facilities and improvement measures, including sidewalk gap closures on Eccles Avenue.

2.5.3 Transportation Demand Management Ordinance

South San Francisco’s TDM Ordinance (Chapter 20.400 of the Municipal Code) aims to reduce VMT of new developments, manage congestion, and promote efficient use of the existing transportation network. The City requires developments to implement a set of strategies, measures, and incentives to encourage the use of walking, bicycling, riding transit, carpooling, or telecommuting. Office/R&D projects with less than 400,000 square feet are required to implement a TDM program and annual monitoring sufficient to achieve a maximum of 60 percent of employees commuting via driving alone.



3. Project Analysis

This section includes an analysis and findings of Project effects on transportation services and facilities in relation to the thresholds of significance identified in Section 1.2.

3.1 Travel Demand

Project trip generation was calculated using data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition with adjustments to reflect local site-specific characteristics. ITE’s Research & Development site studies (Land Use Code 760) capture a range of comparable office/lab land uses consistent with the proposed Project. However, trip generation studies captured by ITE typically reflect suburban sites with ample parking and limited TDM requirements, whereas the City of South San Francisco’s parking and TDM requirements intend to enforce a lower drive-alone mode share. As noted in Section 2.5.3 and described in the Project’s TDM Plan, the Project must implement a TDM program sufficient to achieve a maximum of 60 percent of employees commuting via driving alone. The Project’s proposed parking supply of 1.5 spaces per 1,000 square feet further reinforces this reduced drive-alone mode share target. Based on the City of South San Francisco’s Transportation Impact Analysis Guidelines, a reduction of 21 percent was applied to ITE rates to reflect this drive alone mode share requirement and reduced parking supply.¹

As shown in **Table 3.1**, the Project would generate 2,311 new daily trips, 212 new AM peak hour trips, and 201 new PM peak hour trips. Because the existing land use is unoccupied, no existing trip credit is taken into account for the Project’s trip generation.

Table 3.1 Trip Generation

Land Use	Daily	AM Peak Hour			PM Peak Hour		
	Total	Total	In	Out	Total	In	Out
Project: 298,470 Square Feet (ITE 760 R&D Use))	2,925	268	220	48	254	41	213
<i>TDM Reduction (-21%)</i>	-614	-56	-46	-10	-53	-9	-45
Project Trips	2,311	212	174	38	201	32	168

All Project vehicle travel would enter and exit the site via Eccles Avenue. Approximately 60 percent of vehicle trips are expected to travel to/from the south via East Grand Avenue and Forbes Boulevard, while approximately 40 percent are expected to travel to/from the north via Oyster Point Boulevard. Approximately 80 percent of vehicle trips are expected to travel to/from US 101 via Oyster Point Boulevard, East Grand Avenue, and South Airport Boulevard.

¹ ITE rates reflect the national average drive alone commute mode share of around 76 percent based on survey data from the US Census and American Community Survey between 2000 and 2019. The City’s 60 percent drive alone mode share requirement results in a 21 percent reduction over this average mode share.



3.2 Consistency with Plans & Policies

The Project is consistent with City transportation plans and policies. The Project would incorporate a pedestrian- and bicycle-oriented design consistent with General Plan Goals 1, 2, and 5 and the Active South City Plan. A pedestrian and bicycle connection would be provided to the multi-use trail along the Project’s northern frontage. The Project’s TDM Plan would meet the requirements of the City’s TDM Ordinance and General Plan Goals 3 and 4 by implementing a TDM program sufficient to achieve a maximum of 60 percent of employees commuting via driving alone and participating in annual monitoring efforts. The Project would not exceed the City’s parking maximums consistent with General Plan Goal 3. The Project has incorporated comments from the City’s site plan review process consistent with General Plan Goal 4. The Project would not preclude the City from implementing proposed transportation projects identified in the General Plan or Active South City Plan.

3.3 Vehicle Miles Traveled

The Project’s effect on VMT was analyzed using the City of South San Francisco’s VMT thresholds established in Resolution 77-2020 on June 10, 2020 and consistent with CEQA Guidelines Section 15064.3, subdivision (b). The adopted VMT threshold for employment-generating land uses states that a Project would have a significant transportation impact if its VMT is greater than 15 percent below the baseline for home-based work (HBW) VMT per employee. Based on the City’s General Plan analysis using the City/County Association of Governments of San Mateo County (C/CAG) Model, this threshold would be set at 11.6 HBW VMT per employee under existing conditions and 11.3 HBW VMT under Cumulative conditions, as shown in **Table 3.2**.

Table 3.2 Home-Based Work Vehicle Miles Traveled Per Employee Thresholds

Scenario	Topic	Estimated Home-Based Work VMT per Employee
Existing	Bay Area Regional Average	14.9
	<i>Threshold of Significance (15% Below Regional Average)</i>	12.7
	City	16.6
	Project¹	16.5
Cumulative (2040)	Bay Area Regional Average	14.7
	<i>Threshold of Significance (15% Below Regional Average)</i>	12.5
	City General Plan Buildout	13.4
	Project¹	12.2

¹Based on Project’s transportation analysis zone in the C/CAG VTA Model.
 Source: Fehr & Peers, 2023; C/CAG-VTA Model, 2023.



The Project would exceed the VMT threshold of significance under existing conditions as indicated in **Table 3.2**. The Project is expected to generate 16.5 HBW VMT per employee under existing conditions and 12.2 HBW VMT per employee under Cumulative conditions. This finding is consistent with the City's General Plan EIR (Impact TRANS-1), which concluded that the implementation of land use and transportation changes in the General Plan would result in VMT in excess of the VMT threshold of significance. General Plan EIR Mitigation Measure TRANS-1 requires the City to implement a Transportation Demand Management (TDM) ordinance and revise its parking standards to reduce VMT. The TDM ordinance was adopted in Chapter 20.400 of the City's Zoning Code, while revised parking standards are presented in Chapter 20.330. The Project would implement a TDM program consistent with the TDM Ordinance as documented in the Project's TDM Plan and would include a parking supply consistent with the City's maximum allowed amount.

Even with the implementation of these policies and mitigation measures, the General Plan EIR concluded that the City may not reduce VMT below the threshold of significance, citing uncertainty in the Cumulative effectiveness of these measures, as well as unknowns related to transit service levels, transportation technology, and travel behavior. Because of the programmatic nature of the General Plan, the EIR concluded that no additional mitigation measures were feasible, and this impact was found to be significant and unavoidable.

The Project, being consistent with the findings of the General Plan, contributes to this significant and unavoidable impact to VMT, but would not exacerbate the previously identified impact identified in the General Plan EIR.

3.4 Site Circulation and Design Hazards

The Project is located adjacent to existing industrial and R&D uses. It will replace two existing driveways with three new driveways. Most vehicles would use the driveway at the western edge of the Project site, which will serve the parking garage. The driveway at the center will primarily serve passenger loading activity associated with visitors, as well as facilitate emergency vehicle access. The eastern driveway will function as the service driveway for deliveries and refuse collection while also serving emergency vehicles.

The Project would provide adequate sight distances at all driveways. Based on the Highway Design Manual 7th Edition, private driveways shall provide at least 250 feet of corner or stopping sight distance for a design speed of 35 miles per hour consistent with Eccles Avenue. There are no existing or planned obstructions present within a 250-foot cone between these driveways and oncoming traffic, provided that the Project maintains proposed landscaping to a state of good repair.

Pedestrian and bicycle access would be provided via a walkway that connects to the sidewalk on the north side of Eccles Avenue. Two connections would also be provided to the under-construction trail on the northern frontage of the Project site: a stairwell at the center of the site and a ramp at the eastern edge of the site. From the trail, pedestrians and bicyclists may access bus/shuttle stops on Gateway Boulevard via the Gateway of the Pacific site or continue north to the ferry terminal or south to the Caltrain Station.



A pedestrian plaza would be located at the center of the site adjacent to the main building, parking garage, trail, and passenger loading area. Long-term bicycle parking would be provided in a bike room at the parking garage, while short term parking will be located adjacent to the main building entrance.

All driveways, pedestrian connections, bicycle connections, and loading zones can be accessed without exacerbating conflicts between roadway users and would be designed consistent with applicable design standards. The Project's site plan does not present any potential design hazards or include any uses that are incompatible with the surrounding land use or the existing roadway system.

The Project would increase vehicle trips along US 101 freeway off-ramps at Oyster Point Boulevard, East Grand Avenue, and South Airport Boulevard. The South San Francisco General Plan EIR (Impact TRANS-4) determined that implementation of the General Plan is likely to increase vehicle trips on freeway ramps, which could exacerbate vehicle queues along ramps in excess of their storage capacity and present a potentially hazardous condition. The Project, being consistent with the General Plan, would contribute to this significant impact, but would not exacerbate the previously identified impact identified in the General Plan EIR.

3.5 Emergency Vehicle Access

The Project would provide adequate emergency vehicle access consistent with applicable design standards. Each driveway will accommodate all types of emergency vehicles and meet requirements of the California Fire Code. Emergency vehicles would access the site via Eccles Avenue and may circulate through the passenger loading area, parking garage, plaza, and service driveway. Near the Project site, the addition of the Project is not expected to introduce or exacerbate conflicts for emergency vehicle travel. The Project would not introduce roadway features that would alter emergency vehicle access routes or roadway facilities.



4. Impacts and Mitigations

This section includes the evaluation of the Project's potential impacts under Existing Plus Project and Cumulative Plus Project conditions. This section also describes the required associated mitigation measures that would reduce impacts of the Project.

4.1 Consistency with Plans & Policies

Impact TRANS-1: Development of the proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system and results in a less than significant impact based on compliance with such plans and policies.

The Project is consistent with City plans and policies as demonstrated in Section 3.2. The Project would enhance the streetscape of Eccles Avenue, provide a pedestrian and bicycle connection to the adjacent multi-use trail, comply with City parking maximums, and implement a TDM program consistent with City requirements. These measures are consistent with the City's General Plan, Active South City Plan, and TDM Ordinance. The Project would not preclude the City from implementing proposed transportation Projects identified in adopted plans. For these reasons, the Project would result in a less than significant impact and no mitigation is required.

Mitigation Measures: None required.

4.2 Vehicle Miles Traveled

Impact TRANS-2: Development of the Project would not exacerbate the previously identified impacts to VMT identified in the South San Francisco General Plan EIR. (*Less than Significant / Does Not Exacerbate a Previously Identified Impact*)

As shown in Section 3.3, the Project would exceed the City's VMT threshold of significance under existing and Cumulative conditions. This finding is consistent with the City's General Plan EIR (Impact TRANS-1), which concluded that the implementation of land use and transportation changes in the General Plan would result in VMT in excess of the City's VMT thresholds. General Plan EIR Mitigation Measure TRANS-1 requires the City to implement a Transportation Demand Management (TDM) ordinance and update its parking requirements to reduce VMT. The Project would implement a TDM program consistent with the TDM Ordinance, and would include a parking supply consistent with the City's maximum allowed amount.

Even with the implementation of these policies and mitigation measures, the General Plan EIR concluded that the City may not reduce VMT below the threshold of significance, citing uncertainty in the Cumulative effectiveness of these measures, as well as unknowns related to transit service levels, transportation technology, and travel behavior. Because of the programmatic nature of the General Plan, the EIR concluded that no additional mitigation measures were feasible, and this impact was found to be significant and unavoidable. The Project, being consistent with the findings of the General Plan, contributes to this



significant and unavoidable impact to VMT, but would not exacerbate the previously identified impact identified in the General Plan EIR.

Mitigation Measure: South San Francisco General Plan Update MM TRANS-1 – Transportation Demand Management. The Project Sponsor shall implement a combination of TDM programs, services, and infrastructure improvements pursuant to Sections 20.400.003 and 20.400.004 of the Zoning Ordinance, such as establishing trip reduction programs; subsidizing transit use; coordinating carpooling and vanpooling; encouraging telecommuting and flexible work schedules; designing site plans to prioritize pedestrian, bicycle, and transit travel; and funding first/last mile shuttle services. The Project Sponsor shall be subject to annual reporting and monitoring.

4.3 Design Hazards

Impact TRANS-3: Development of the Project would not exacerbate the previously identified impacts based on potential design hazards identified in the South San Francisco General Plan EIR. (*Less than Significant / Does Not Exacerbate a Previously Identified Impact*)

As documented in Section 3.4, the Project's site plan is not expected to pose any on-site design hazards or incompatible land uses. The Project's site plan is consistent with applicable design standards and would provide adequate access and circulation for all modes of travel. The Project provides adequate sight distances at all driveways.

The Project would increase vehicle trips along US 101 freeway off-ramps at Oyster Point Boulevard, East Grand Avenue, and South Airport Boulevard. The South San Francisco General Plan EIR (Impact TRANS-4) determined that implementation of the General Plan is likely to increase vehicle trips on freeway ramps, which could exacerbate vehicle queues along ramps in excess of their storage capacity and present a potentially hazardous condition under Cumulative conditions. The Project, being consistent with the General Plan, would contribute to this significant impact, but would not exacerbate the previously identified impact identified in the General Plan EIR.

4.4 Emergency Access

Impact TRANS-4: Development of the Project would not result in inadequate emergency access under Existing Plus Project and Cumulative Plus Project conditions. (*Less than Significant*)

The Project would provide adequate emergency vehicle access consistent with applicable design standards. Both driveways will accommodate all types of emergency vehicles accessed via Eccles Avenue. The Project is not expected to introduce or exacerbate conflicts for emergency vehicles. Therefore, the Project would not result in inadequate emergency vehicle access, and the Project's impacts to emergency access would be less than significant under Existing Plus Project conditions and Cumulative Plus Project conditions.

Mitigation Measures: None required.



5. Local Transportation Analysis

This section evaluates the Project's effects on the local transportation network consistent with the City of South San Francisco's Transportation Impact Analysis Guidelines for Tier 3 Projects. This analysis is provided for informational purposes and is not associated with CEQA thresholds of significance.

5.1 Parking

The Project meets City parking requirements.

The Project's proposed parking supply meets the parking maximums for R&D and office building space set forth in Table 20.330.004 of the South San Francisco Zoning Code. The Project proposes a parking supply of 1.5 parking spaces per 1,000 gross square feet consistent with the maximum parking allowed for R&D uses.

5.2 Bicycle and Pedestrian Access

Development of the Project would limit conflicts between vehicles, pedestrians, and bicyclists.

The Project's site plan would incorporate pedestrian and bicycle enhancements to reduce the risk of conflicts between pedestrians and bicyclists. Pedestrian access to the Project from Eccles Avenue will be provided via a walkway adjacent to the Project's center driveway that connects to the sidewalk on the north side of Eccles Avenue. Additionally, the Project will provide a connection to the under-construction multi-use trail on the north side of the Project frontage. This trail will allow for direct bicycle and pedestrian travel from the Project site to Oyster Point Boulevard and Forbes Boulevard, and will connect to planned bicycle facilities on Forbes Boulevard and East Grand Avenue that will lead to the South San Francisco Caltrain Station.

The Project provides sufficient bicycle parking.

The Project will provide short-term and long-term bicycle parking spaces consistent with the City code requirements. The City's Zoning Code (Section 20.330.007) requires two types of bicycle parking: "short term" spaces that typically consist of racks within 50 feet of a main building entrance, and "long term" spaces that consist of lockers, fenced, or guarded parking. The City requires short term parking is supplied at a rate of five percent of the total auto parking supply, and long-term parking is supplied at a rate of five percent of the total auto parking supply. The Project would provide 22 long term spaces located in a bike room in the parking garage and 22 short term spaces located adjacent to the main building entrance, consistent with City requirements.



5.3 Transit

The Project's location may pose barriers to transit access.

The Project is located approximately 700 to 900 feet away from the nearest bus/shuttle stops along Gateway Boulevard, which are served by a combination of SamTrans, Commute.org, and Oyster Point Mobility services. However, there is no direct path of access to these stops: while there is a driveway present along the southwestern edge of Gateway of the Pacific (700 Gateway), a retaining wall prevents a connection to the Class I trail or Project site. Consequently, transit riders must divert to the north via the Gateway of the Pacific campus, but this adds approximately 1,600 feet (about six minutes) of walking distance to reach the stop. The added travel time and meandering diversion may discourage transit use and limit the Project's ability to meet its TDM mode share targets.

Additionally, as illustrated in **Figure 3**, there is asymmetrical shuttle service near the Project site: the southbound stop at 701 Gateway is served by Commute.org's Oyster Point Caltrain, Oyster Point Ferry, and Utah Grand BART shuttles, but northbound shuttle service is not present at the SamTrans stop at 700 Gateway; instead, a stop is provided near 1000 Gateway farther from the Project site in close proximity to other shuttle stops along Oyster Point Boulevard. No service is provided by Oyster Point Mobility near the site.

There is some uncertainty around potential changes to shuttle service near the site. Shuttle operations by Commute.org and Oyster Point Mobility are expected to adapt to completion of future phases of Gateway of the Pacific and nearby developments, which may result in new stops along Gateway Boulevard and possible restoration of service along Eccles Avenue and/or Forbes Boulevard. However, the Project by itself is too small to warrant a diversion of shuttle service to directly serve the site, as such a diversion would delay other passengers. Therefore, the Project's approach to shuttle service should be adaptable to different potential conditions that may include indirect access provided via Gateway of the Pacific as well as direct access via a site-specific shuttle stop.

Condition of Approval – Transit Access: As a condition of approval, the Project Sponsor shall implement the following measures to ensure adequate access to transit services can be provided:

- Provide a letter of support from the owners of Gateway of the Pacific into the final TDM Plan stating that the two developments will make a good faith effort to ensure pedestrian access from 439 Eccles to bus and shuttle stops on Gateway Boulevard via the Gateway of the Pacific site.
- Incorporate space for an on-street shuttle stop along the Project's frontage on southbound Eccles Avenue to provide the ability for shuttles to serve the site (including red curb, an eight foot by five foot accessible landing pad and a pole that operators may attach signage to).



5.4 Passenger Loading

The Project does not result in a deficiency in passenger loading operations.

The Project provides approximately two to three on-site passenger loading spaces adjacent to the loading loop. Passenger loading activities are not expected to interfere with or spill over onto the Project's driveway or pedestrian/bicycle facilities.

5.5 Traffic Operations

The Project does not result in a deficiency in traffic operations.

The City of South San Francisco no longer has a level of service (LOS) standard for auto operations. Instead, General Plan Policy MOB-3.2 directs the City to "optimize traffic operations on City streets while avoiding widening roadways or otherwise pursuing traffic operations changes at expense of multimodal safety, transit reliability, or bicycle and pedestrian comfort." This section provides an analysis of the Project's effects on traffic operations and potential changes to address any deficiencies consistent with Policy MOB-3.2.

5.5.1 Assumptions and Methodology

The City's Transportation Impact Analysis Guidelines directs Tier 3 Projects to assess the effects on traffic operations for intersections adjacent to the Project site. Three intersections in the vicinity of the Project were evaluated: Eccles Avenue/Oyster Point Boulevard, Eccles Avenue/Grand Avenue, and Grand Avenue/Forbes Boulevard. A fourth new intersection in the vicinity of the Project at Forbes Boulevard/Corporate Drive was analyzed only for the Cumulative scenarios consistent with the City's General Plan. The Project's effects on off-site traffic circulation were assessed using Synchro traffic analysis software. The method from Chapter 19 of the *Highway Capacity Manual (HCM)*, 6th Edition bases signalized intersection operations on the average control delay experienced by motorists traveling through it. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. This method uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay. **Table 5.1** summarizes the relationship between average delay per vehicle and LOS for signalized intersections according to the HCM 6th Edition.

Traffic conditions for the unsignalized intersections were evaluated using the method from Chapters 20 and 21 of the HCM 6th Edition. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each stop-controlled approach that must yield the right-of-way. At four-way stop-controlled intersections, the control delay is calculated for the entire intersection and for each approach. The delays and corresponding LOS for the entire intersection are reported in **Table 5.2** summarizes the relationship between delay and LOS for unsignalized intersections.



Table 5.1 Signalized Intersection LOS Criteria

LOS	Description	Average Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 and ≤ 20
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20 and ≤ 35
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35 and ≤ 55
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55 and ≤ 80
F	Operation with very high delay values to most drivers occurring due to over saturation poor progression, or very long cycle lengths.	> 80

Source: Transportation Research Board, 2016. *Highway Capacity Manual*, 6th Edition

Table 5.2 Unsignalized Intersection LOS Criteria

LOS	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no traffic delays.	≤ 10
B	Short traffic delays.	> 10 and ≤ 15
C	Average traffic delays.	> 15 and ≤ 25
D	Long traffic delays.	> 25 and ≤ 35
E	Very long traffic delays.	> 35 and ≤ 50
F	Extreme traffic delays with intersection capacity exceeded.	> 50

Source: Transportation Research Board, 2016. *Highway Capacity Manual*, 6th Edition

5.5.2 Analysis Scenarios

The effect of the Project on the surrounding transportation system was evaluated for Existing (2023) and Cumulative conditions. Existing conditions represent the baseline condition upon which the Project's effects are measured. Existing plus Project conditions represent the baseline condition with the addition of the Project. Cumulative conditions represent transportation demand resulting from reasonably foreseeable land use changes and conditions associated with funded transportation Projects in the year 2040 based on the South San Francisco General Plan Update. Cumulative conditions are inclusive of the Project given its consistency with the General Plan. A second Cumulative scenario was analyzed with a new traffic signal at the Forbes Boulevard/Corporate Drive intersection consistent with the General Plan.



5.5.3 Analysis Results

The Project would not substantially change control delay at the study intersections, with most intersections maintaining the same LOS conditions after addition of Project trips. **Table 5.3** presents the traffic delay analysis for the three study intersections under Existing and Cumulative conditions.

While all study intersections are expected to operate at LOS B or LOS C under Existing and Existing plus Project conditions, Cumulative conditions are expected to become more congested as nearby developments contribute to increased traffic volumes within the area. The addition of a traffic signal at the Forbes Boulevard/Corporate Drive intersection would help reduce delay at the Forbes Boulevard/East Grand Avenue intersection by shifting some trips from East Grand Avenue to Corporate Drive, but the Forbes Boulevard/East Grand Avenue intersection would continue to operate at LOS F.

Table 5.3 LOS Results

Intersection	Control Type	Peak Hour	Existing Conditions		Existing Plus Project Conditions		Cumulative Conditions		Cumulative Conditions with Forbes/Corporate Signal	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Eccles Ave/ Oyster Point Blvd	Signalized	AM	11.2	B	14.4	B	>80	F	>80	F
		PM	10.3	B	14.3	B	>80	F	>80	F
Eccles Ave/ Forbes Blvd	Signalized	AM	14.8	B	26.8	C	>80	F	>80	F
		PM	12	B	11.2	B	61.5	E	61.9	E
Forbes Blvd/ East Grand Ave	Signalized	AM	24.6	C	27.4	C	>80	F	>80	F
		PM	26.9	C	29.5	C	>80	F	>80	F
Forbes Blvd/ Corporate Dr	Side-Street Stop Control	AM	-	-	-	-	16.1 ¹	C	14.9	B
		PM	-	-	-	-	>50 ¹	F	32.6	C

Source: Fehr & Peers, 2023.

1. For signalized intersection, average intersection delay is shown. For unsignalized intersections, worst approach delay is shown.

The City may consider applying transportation impact fees toward intersection improvements and signalization at Forbes Boulevard/Corporate Drive to help reduce delay at Forbes Boulevard/East Grand Avenue in the Cumulative condition. Since this measure is included in the General Plan and primarily needed in the Cumulative condition, no additional Project-specific contribution is required.

Limited options remain for capacity improvements or widening near the Project site due to limited available right-of way. Such changes would also generally conflict with General Plan Policy MOB-3.2, which calls for optimizing operations while avoiding widening roadways, or otherwise pursuing traffic operations changes at the expense of multimodal safety, transit reliability, or bicycle and pedestrian comfort.



5.6 Intersection Traffic Controls

The Project does not trigger a peak hour traffic signal warrant.

The Project's driveways do not meet peak hour signal warrants based on the California *Manual on Uniform Traffic Control Devices*. Adjacent intersections at Forbes Boulevard/Eccles Avenue and Eccles Avenue/Oyster Point Boulevard are already signalized. No additional changes are required.

5.7 Suggested Conditions of Approval

This section restates suggested conditions of approval based on findings of this Local Transportation Analysis.

Condition of Approval – Transit Access: As a condition of approval, the Project Sponsor shall implement the following measures to ensure adequate access to transit services can be provided:

- Provide a letter of support from the owners of Gateway of the Pacific into the final TDM Plan stating that the two developments will make a good faith effort to ensure pedestrian access from 439 Eccles to bus and shuttle stops on Gateway Boulevard via the Gateway of the Pacific site.
- Incorporate space for an on-street shuttle stop along the Project's frontage on southbound Eccles Avenue to provide the ability for shuttles to serve the site (including red curb, an eight foot by five foot accessible landing pad and a pole that operators may attach signage to).

