

3.2 Transportation

This section provides a programmatic assessment of the impacts of the proposed Pacifica General Plan on the circulation system, including facilities for vehicles, bicycles and pedestrians.

Environmental Setting

PHYSICAL SETTING

Streets and Highway System

Three major routes connect Pacifica to the rest of the region. State Route (SR) 1 (or the Coast Highway) traverses the City from north to south, connecting Pacifica to Daly City and San Francisco to the north, and to Half Moon Bay and the San Mateo County coastline to the south. SR 35 (or Skyline Boulevard) generally runs along the eastern edge of Pacifica, and is a major north-south route connecting to Santa Clara County and San Francisco. Sharp Park Road follows a southwest-northeast route through the center of Pacifica, connecting SR 1 (Coast Highway) with SR 35 (Skyline Boulevard). It continues east of SR 35 in South San Francisco as Westborough Boulevard. Each of these major roadways intersects with I-280, an eight-lane major regional freeway on the Bay peninsula located between ½ mile and 2 miles from the Planning Area.

Pacifica's roadway network is comprised of freeways and multi-lane highways, two-lane highways, arterials, collectors, and pedestrian priority zones, as described below. Each classification reflects the character of the roadway as well as its function within the context of the entire circulation system. Each classification has standards that take into account a facility's relation to surrounding land uses, existing right-of-way, accessibility via other roadways, and appropriate travel speeds. It prioritizes travel modes for each road, and how to accommodate multiple travel modes. **Figure 3.2-1** illustrates the existing roadway network with street classifications.

Roadway Classification

Freeways and Multi-Lane Highways

Freeways typically have speed limits of 55 and 65 miles per hour (mph) and four to eight lanes, with physical medians and uninterrupted flow. Multilane highways generally have posted speed limits between 40 and 55 mph.¹ Unlike freeways, multilane highways are interrupted by intersections or driveways. These roadway types serve high volumes of high speed regional vehicle traffic, including automobiles and trucks. Bicycles and pedestrians are prohibited.

In Pacifica, SR 1 north of Linda Mar Boulevard and SR 35 (Skyline Boulevard) both have segments that are freeways and segments that are multilane highways. Interstate 280 is an important regional freeway near but outside the Planning Area.

Two-Lane Highways

The 2011 C/CAG Congestion Management Program² defines a two-lane highway as a two-lane roadway with one lane for use by traffic in each direction. In Pacifica, SR 1 is considered a two-lane highway south of Linda Mar Boulevard.

¹ City/County Association of Governments (C/CAG) of San Mateo County. 2011. San Mateo County Congestion Management Program 2011. Appendix A: Detailed Inventory of CMP Roadways and Intersections. Available: http://www.ccag.ca.gov/pdf/Studies/Final%202011%20CMP_Appendix_Nov11.pdf.

² Available: http://www.ccag.ca.gov/pdf/Studies/Final%202011%20CMP_Nov11.pdf.

Figure 3.2-1:
Roadway Network
and Planned
Improvements

-  Freeway
-  Multi-Lane Highway
-  Two-Lane Highway
-  Arterial
-  Collector
-  Local Street
-  Unimproved Right-of-Way
-  Planned Improvement
-  Potential Future Street
-  Pedestrian Priority Zone (proposed)
-  City Limits
-  Planning Area



Source: City of Pacifica, 2008; DKS, 2009; San Mateo County, 2009; Dyett & Bhatia, 2013.

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Arterials

In Pacifica, arterials are classified as roadways that are wider, accommodate higher volumes of traffic, or may provide access to the state highway system. Arterials generally provide important connections between different areas of Pacifica. They have frequent intersections and points of access, and may pass through pedestrian-intensive commercial areas. These roadways serve relatively high volumes of vehicles, but are also important links for bicycle and pedestrian movement. Most arterials in Pacifica have existing or planned bike lanes. In most cases, arterials are also the location of bus service in Pacifica. Along certain arterials, notably Palmetto Avenue, Esplanade Avenue, and sections of Oceana Boulevard, Paloma Avenue and Manor Drive, the pedestrian environment is prioritized.

In the northern section of the City, Sharp Park Road, Manor Drive, and Monterey Road/Hickey Boulevard all serve as through-passages between SR 1 and SR 35. Francisco Boulevard, Oceana Boulevard, Palmetto Avenue and Lundy Way each run parallel to SR 1 and provide access points to on/off ramps. Since these roadways provide access to the state route system and experience higher volumes of vehicle traffic, they are classified as arterials.

Due to the bisecting nature of SR 1, certain roadways are vital to traffic circulation west of SR 1. Palmetto Avenue is the only roadway west of State Route 1 to extend from the northern edge of the City to central Pacifica. At the southern terminus of Palmetto Avenue, Lakeside Drive connects Palmetto Avenue to Francisco Boulevard. Paloma Avenue provides one of the few connections between the east and west sides of Pacifica across SR 1. Esplanade Avenue and West Avalon Drive connect to Palmetto Avenue and front the ocean in northern Pacifica, circling the Manor Plaza commercial area. Reina Del Mar Avenue, Fassler Avenue/Terra Nova Boulevard and Linda Mar Boulevard provide direct routes between SR 1 and neighborhoods on the south side of Pacifica.

Collectors

In Pacifica, collectors have slower permitted speeds than arterials, serve short, local trips, and accommodate travel between residential neighborhoods and arterials. Collectors are generally larger streets in residential areas but have smaller widths than arterials. Collectors have moderate volumes of vehicular traffic, and equally accommodate automobiles, bicycles, and pedestrians within the right-of-way. Transit use, if any, is incidental, and pedestrians are provided with continuous sidewalks on both sides of the street, to the greatest extent feasible. On-street parking is allowed and encouraged.

In northern Pacifica, Gateway Drive, Inverness Drive, and upper Monterey Road are considered collectors since these roadways are gateways between neighborhoods and arterials or are through-passages between arterials. Paloma Avenue east of Highway 1 is a collector and joins residential areas to Oceana Boulevard. There are more collectors in the more residential southern part of Pacifica. These include segments of Rockaway Beach Avenue, Crespi Drive, San Pedro Avenue, Rosita Road, and Oddstad Boulevard.

Transit Service

The San Mateo County Transit District (SamTrans) provides bus service throughout San Mateo County and into San Francisco and Palo Alto. SamTrans provides local service in Pacifica as well as service to and from BART and Caltrain stations. **Figure 3.2-2** details existing bus routes in Pacifica.

Bus Routes

As of 2010, eight SamTrans bus routes serve Pacifica. Routes 14 and 16 make loops through the southern and northern areas of Pacifica serving shopping areas, schools, and services. Currently, route 14 operates on both weekdays and weekends with headways of between 30 and 90 minutes, while Route 16 operates only on weekdays on timetables designed to serve students.

Routes 110 and 112 provide service between the Highway 1 corridor in Pacifica and the Daly City and Colma BART stations, respectively. Both terminate at Linda Mar Shopping Center. The routes have half-hour to one-hour headways, and run on both weekdays and weekends. Route 118 provides service to Colma BART station during the AM and PM peak hour periods of weekdays, on 15- to 35-minute headways³.

Route 121 runs through Pacifica's northern upland neighborhoods, serving Fairmont Shopping Center and providing connections to Skyline College in San Bruno, Serramonte Shopping Center and Seton Medical Center in Daly City, and the Daly City and Colma BART stations. Headways are between 20 and 40 minutes on the weekdays and an hour on the weekends.

Route 140 connects the Pacific Manor shopping center on Palmetto Avenue and Manor Drive to Skyline College and the San Bruno BART station to the east. The line extends to Terra Nova High School on school days to serve students. Headways for this east-west route are between 30 minutes to an hour on weekdays and an hour on the weekends.

Route 294 connects the Linda Mar Park and Ride to Half Moon Bay and the Hillsdale Caltrain station in San Mateo. The route goes south on State Route 1 from Linda Mar, making just one stop in Pacifica. Headways are between 70 and 110 minutes.

³ The headway in public transit systems is the amount of time between two vehicles passing the same point traveling in the same direction on a given route.

Figure 3.2-2:
Transit Routes
and Facilities

- SamTrans to BART
- SamTrans to Caltrain
- Local Service
- P** Park and Ride Lot
- City Limits
- Planning Area



Source: City of Pacifica, 2008; DKS, 2013;
San Mateo County, 2009; Dyett & Bhatia, 2013.

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The City of Pacifica has initiated a free weekend shuttle known as the Devils Slide Ride. The service provides transportation along the coast between the Jean Brink Pool at Oceana High School and the turnaround at the Devils Slide tunnels, giving residents and visitors access to coastal attractions in Pacifica including the Devils Slide hiking and viewing area. Funding is provided through a grant from the San Mateo County Transportation Authority and the City/County Association of Governments of San Mateo County.

BART and Caltrain

Bay Area Rapid Transit (BART) provides heavy rail rapid transit to Alameda, Contra Costa, San Francisco, and San Mateo Counties. The Colma, Daly City, San Bruno, and South San Francisco BART stations are accessible to Pacifica residents via bus connections or by car.

Caltrain is a passenger rail line providing commuter service over a 77-mile route between downtown San Francisco and Gilroy, through San Jose and along the San Francisco Peninsula. Service is provided with headways between 5 and 20 minutes during the peak hours, 30 minutes during off-peak hours during weekdays, and one hour on weekends. The San Bruno station is approximately eight miles east of Pacifica, while the Hillsdale station in San Mateo is approximately 20 miles away, a 30-minute drive. It can also be reached via Half Moon Bay using SamTrans route 294.

Dial-a-Ride Service

All SamTrans buses are accessible to persons with disabilities. However, the San Mateo County Transit District also operates dial-a-ride (or paratransit) service for persons who cannot use fixed-route bus service, as required by the Americans with Disabilities Act (ADA). Paratransit service in the Planning Area is called RediCoast. Certified RediCoast customers may schedule trips over the phone.

Transportation Demand Management

Transportation Demand Management (TDM) refers to strategies and incentives to increase the efficiency of the transportation network by promoting alternatives to single-occupancy-vehicle travel at peak hours. The current Congestion Management Plan (CMP), adopted in 2011⁴, provides continued support for TDM programs in San Mateo County. These programs may include employer-based shuttle programs for large employers; alternative commuting support services; and school carpool programs. TDM programs may help to support alternative travel methods in Pacifica.

Pedestrian and Bicycle Network

Bicycle Circulation

The 2000 City of Pacifica Bicycle Plan classifies bicycle facilities into three types:

- Class I facilities (bike paths or trails) have exclusive right-of-way, are separated from roads, and exclude general motor vehicle traffic.

⁴ Available: http://www.ccag.ca.gov/pdf/Studies/Final%202011%20CMP_Nov11.pdf.

- Class II facilities (bike lanes) are marked by painted stripes on the roadway. While the striping provides preferred space for bicycles, they are still part of the paved road and are not exclusive for bicycles.
- Class III facilities (bike routes) share traffic lanes with automobiles and are only identified by signage.

Figure 3.2-3 shows Pacifica's bikeway network. The City has two main bikeways. The first primarily runs north-south parallel to and along State Route 1. The northern segment includes a Class III facility (a signed bike route) along Esplanade Avenue, a Class II facility (bike lane) along Palmetto Avenue, and another stretch of Class III bike route on Francisco Boulevard to Mori Point Road and State Route 1. At this point, the bikeway becomes a Class I facility (bike path) between Mori Point Road and Reina del Mar. From here, the north-south bike route has two branches: a new Class I facility along Calera Creek through the Rockaway Quarry site to Rockaway Beach, followed by a second bike path over the Headlands and along the dunes from Rockaway Beach to Pacifica State Beach; and an unofficial route with a 9-foot-wide striped lane along SR 1.

The second bikeway in Pacifica is a Class II (striped bike lane) and Class III (signed bike route) facility running east-west along Sharp Park Road between US 1 and US 35. Sharp Park Road has a continuous eastbound bike lane; the westbound bike lane currently exists only between College Drive and US 35.

As of 2000, according to the Pacifica Bicycle Plan, there were 24 bike racks in Pacifica with a combined capacity for 130 bikes. Bike racks are close to most major destinations along the two bike routes, but are not present at Rockaway Beach, the beach access location at the end of Esplanade Avenue, in the Pedro Point area, at some of the public schools, or in the Pacific Manor commercial area.

Pacifica's scenic setting, recreational amenities, and connections to major regional open spaces and trails make it ideal for recreational bicycle riding, and for local trips along the coastline or in the valley neighborhoods. However, at present the network of bicycle routes is inconsistently developed and not well marked.

Improvements to the bicycle system included in the proposed General Plan are also shown in **Figure 3.2-3**. This system would provide bicyclists with a complete network of continuous and safe access along the coastal corridor and between neighborhoods.

Pedestrian Circulation

Sidewalks and Crosswalks

Based on October 2008 field observations, most arterial and residential streets have sidewalks. Sidewalks are not present along major roadways including US 1, US 35, and Sharp Park Road. Where sidewalks are present, they are generally between 6 and 10 feet wide and in good condition. Crosswalks are provided at all study intersections (as described below in "Methodology") with appropriate striping and, where appropriate, pedestrian signals.

Figure 3.2-3:
Bicycle Network

- Existing Class I
- - - Proposed Class I
- Existing Class II
- - - Proposed Class II
- Existing Class III
- - - Proposed Class III
- - - Class III to be upgraded to Class II
- Class I to be upgraded
-  Bicycle Lockers
-  Bicycle Parking
-  Changing Room w/Water
-  Changing Room wo/Water
-  Pedestrian Overpass
-  Pedestrian Underpass
-  Existing Link
-  Potential Link to Unpaved Trail

-  Parks/Open Space
-  City Limits
-  Planning Area

Source: City of Pacifica, 2008; DKS, 2009; San Mateo County, 2009; Dyett & Bhatia, 2013.



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Pedestrian and Bicycle Crossings of Highway 1

Highway 1 is a freeway between Pacifica's northern City limits and the Fairway Park neighborhood. There are five east-west crossings along this stretch for automobiles, pedestrians and bikes, at Gateway Drive, Manor Drive, Paloma Avenue, Clarendon Road, and Sharp Park Road. In addition, there are pedestrian/bicycle overcrossings at Milagra Drive and San Jose Avenue, and an undercrossing at Sharp Park Golf Course.

Hiking and Pedestrian Trails

Pacifica is home to a network of trails along the Pacific Ocean and on inland ridges. Some are paved and allow for cycling and pedestrians, while others are unpaved and only accommodate pedestrians. Some are open to horseback riders. A brief summary of existing trails follows:

- The Coastal Trail is a seven-mile coastal trail starting from Sharp Park Beach, crossing Mori Point, passing through Rockaway Beach, and ending at Pacifica State Beach near the Linda Mar district.
- Milagra Ridge, part of the Golden Gate National Recreation Area (GGNRA), has paved paths for hiking and bicycles and unpaved paths for hiking only.
- Mori Point is a recent addition to the GGNRA. With significant contributions from local volunteers, Mori Point now features an elevated trail with wooden decking leading to a viewing platform overlooking a new habitat pond; an accessible trail loop; and a new link in the Coastal Trail.
- The GGNRA's Sweeney Ridge unit features Mori Ridge Trail, connecting Shelldance Nursery at Highway 1 with Sweeney Ridge (approximately 2.4 miles); Baquino Trail, from the top of Fassler Avenue eastward to the Portola Discovery Site (approximately 1.5 miles); Sneath Lane from San Bruno west to the Discovery Site, and Sweeney Ridge Trail, extending along the crest and connecting these trails.
- Sweeney Ridge Trail a part of the larger Bay Area Ridge Trail, a 310-mile intermittent trail loop around the Bay Area. The Bay Area Ridge Trail continues along the Fifield and Cahill Ridges to the south. To the north, it is interrupted at Milagra Ridge; a separate segment resumes near Mussel Rock just north of Pacifica.

Freight Movement

In addition to moving people, the roadway system in Pacifica carries trucks moving goods. Trucks move through the City and to destinations in the City, particularly in commercial areas. However, there is very little industrial activity in the Planning Area, and there are minimal locally originating truck trips.

SR 1 and SR 35 are State-designated truck routes, including their segments in the Planning Area. The routes allow truck traffic to pass through the City with minimal impact on residential neighborhoods, local vehicular traffic and pedestrians. They also aim to discourage the use of Sharp Park Road for through truck traffic because of its sharp curves and grade change. Designated truck routes do not prevent trucks from using other streets as needed for local trips.

Parking

On-street parking is permitted on most residential streets in Pacifica. On-street parking is not permitted on high-traffic roadways such as State Route 1, State Route 35, Sharp Park Road, and certain sections of Linda Mar Boulevard and Fassler Avenue.

Off-street recreational parking is available at Pacifica State Beach, Rockaway Beach, and Sharp Park Beach and Promenade. Additional off-street parking is available at various shopping centers including the Fairmont Shopping Center, Pacific Manor Shopping Area, and the Linda Mar Shopping Center.

Table 3.2-1 provides a current inventory of off-street parking for commuters and beach visitors in the Planning Area.

Table 3.2-1: Commuter and Beach Visitor Parking

<i>Type and Location</i>	<i>Capacity (approx.)</i>
Park-and-Ride Lots	
Crespi Drive	110
Linda Mar	70
Subtotal	180
Beach Visitor Lots	
Pacifica State Beach (south)	54
Pacifica State Beach (north)	135
Rockaway Beach (south)	50
Rockaway Beach (north)	54
Sharp Park Beach Promenade/Pier	95
Subtotal	388

Source: Dyett & Bhatia, 2012.

A parking lot usage study of the lots at Pacifica State Beach conducted in June 2010 by the City of Pacifica Public Works Department found average daily use was approximately 5,360 vehicles. If year-round usage were at this level, this translates to nearly two million vehicles per year.⁵

A separate, informal study by the City in 2009 estimated a much smaller number of vehicles parking at Pacifica State Beach, translating to 118,000 per year. According to this study, the parking lots at Pacifica State Beach are 60 to 70 percent full on weekdays and full on weekends, year-round. On hot days, the lots are full on any day of the week, while on days with strong winds or rain the lots are 10 to 25 percent full.

⁵ City of Pacifica Department of Public Works, 2010.

Meanwhile the lot at Crespi Drive and Highway 1 was estimated to be 30 to 50 percent full on weekdays in the winter, early spring, and late fall, and 40 to 60 percent full on weekdays during late spring, summer, and early fall. On weekends, this lot was estimated at 50 to 60 percent full during the cooler seasons and 60 to 80 percent full during the warmer seasons.⁶ Based on this estimate, it appears the Crespi Drive lot receives more use on the weekends than during the week, indicating it is used more by beach visitors than by commuters. (The Community Center is also served by this lot, and has activity on all days of the week.) In summer 2013, Pacifica State Beach began a parking program, wherein a parking receipt or pass is required to park in both the north and south Pacifica State Beach parking lots on Highway 1, the Crespi Drive lot, and SR 1 adjacent to the Pacifica Community Center.

Existing Travel Patterns

Existing travel patterns are analyzed in terms of origin and destination, trip type, and travel mode, using information from the C/CAG travel demand model. In **Table 3.2-2**, “home-based work trips” are distinguished from “other trips,” such as recreation-, shopping-, and school-related trips, and trip types are shown by origin and destination.

Table 3.2-2: Daily Travel Patterns

Destination	Percent of Trips by Trip Type		
	Home-Based Work Trips	All Other Trips	Total Trips
Trips from Pacifica			
Within Pacifica	15%	64%	56%
San Mateo County (not Pacifica)	33%	28%	30%
San Francisco	49%	6%	12%
Other Bay Area Counties	3%	2%	2%
Total	100%	100%	100%
Trips to Pacifica			
Within Pacifica	15%	58%	49%
San Mateo County (not Pacifica)	51%	26%	31%
San Francisco	23%	14%	16%
Other Bay Area Counties	11%	2%	4%
Total	100%	100%	100%

Source: DKS Associates, 2009.

As of 2009, home-based work trips from Pacifica to San Francisco or to other parts of San Mateo County account for 82 percent of the trips in this category, with only 15 percent of such trips staying in Pacifica. In other words, the great majority of Pacifica’s resident

⁶ Greg Cochran, City of Pacifica Parks, Beaches and Recreation Commission, 2009.

workforce commutes out of the City. Similarly, 15 percent of commuter trips to jobs in Pacifica originate in Pacifica. The great majority of home-based work trips to and from Pacifica are non-local.

On the other hand, 64 percent of all “other” trips that begin in Pacifica have Pacifica destinations and 58 percent of “other” trips with Pacifica destinations also begin there. This indicates that well over half of recreation-, shopping-, and school-related trips are local. Altogether, about half (56 percent of trips from Pacifica, 49 percent of trips to Pacifica) of all trips are made entirely within the City.

Table 3.2-3 details the share of trips to and from Pacifica made by transit. Three percent of trips from Pacifica to other parts of San Mateo County and four percent of trips to San Francisco are made by public transit. Most of the transit trips within the County are on SamTrans buses, while most of the transit trips to San Francisco involve BART. Since the closest BART station (Colma) is a few miles outside of Pacifica, these trips require an additional bus or auto trip. Transit accounts for only a small fraction (0.2 percent) of trips within Pacifica.

Trips to Pacifica follow a very similar pattern in reverse, though only two percent of trips from other parts of the County are transit trips, compared with three percent of the San Mateo County-bound trips that start in Pacifica.

Table 3.2-3: Transit Mode Share

	Mode Share as a Percentage of Total Travel			
	SamTrans Bus	Caltrain	BART	All Transit
Trips from Pacifica				
Within Pacifica	0.20%	-	-	0.20%
San Mateo County (not Pacifica)	2%	0.02%	0.10%	3%
San Francisco	0.30%	0.10%	3%	4%
Other Bay Area Counties	0.05%	0.50%	0.05%	1%
<i>Subtotal</i>				<i>1.3%</i>
Trips to Pacifica				
Within Pacifica	0.20%	-	-	0.20%
San Mateo County (not Pacifica)	1%	0.05%	0.03%	2%
San Francisco	2%	0.10%	2%	4%
Other Bay Area Counties	0.05%	0.05%	0.04%	1%
<i>Subtotal</i>				<i>1.2 %</i>

Bus trips include bus-to-Caltrain and bus-to-BART trips.

Subtotals represent proportion of trips from or to Pacifica made by transit, regardless of mode.

Source: DKS Associates, 2009.

Planned Improvements

Two roadway improvement projects are at various stages of planning or construction in the Planning Area (a third, the Devil's Slide Bypass, was completed in 2013). Other improvements to the roadway network will be constructed during the planning period to achieve a balance between existing and future land use and traffic carrying capacity. Major improvements planned or programmed for Pacifica are shown in **Figure 3.2-1** and described below.

Calera Parkway Project

State Route 1 in Pacifica experiences high vehicle volumes and congestion resulting in stop-and-go traffic, delays of 30 minutes or more, and queues between one and two miles during peak hours. These traffic issues along SR 1 in Pacifica have been a concern for decades as traffic has increased. Traffic is most acute on the portion of highway between Linda Mar Boulevard and Reina del Mar Avenue, where vehicles back up at the signalized intersections. Turning into and out of Reina del Mar Avenue from Highway 1 during the AM peak period are especially problematic, as commuter traffic mixes with vehicles dropping off students at Vallemar School.

County and State transportation agencies are working in consultation with state regulatory agencies on a solution to the problem of northbound congestion in the AM peak period and southbound congestion in the PM peak period along Highway 1 between Fassler Avenue and Westport Drive. The Final EIR was released in August 2013. The Calera Parkway project, as it is more commonly called, proposes to add one lane of traffic in each direction between Fassler Avenue and Reina del Mar Avenue, which is projected to increase capacity at the intersections by 50 percent. Aside from the "No Build" scenario, other alternatives were also considered.

There have also been suggestions that the problem could be alleviated by changing traffic patterns related to Vallemar School. This could involve shifting students to school buses and staggering school start times.

Caltrans and the San Mateo County Transportation Authority (SMCTA) are joint sponsors of the Calera Parkway project, which was identified in the original Measure A. Measure A was passed by San Mateo County voters in 1988, and created a half-cent sales tax for the improvement of highway and transit facilities in the county. The measure was reaffirmed in 2004. The project is estimated to cost between \$35 and \$45 million.

Manor Drive Overcrossing

SR 1 bisects Pacifica, and makes travel between the east and west sides of the City difficult. In the northern area of the City, there are three crossings of State Route 1 in a three-mile stretch. These crossings connect neighborhoods east of State Route 1 to residential and commercial areas and beaches west of the highway. One of these crossings, at Manor Drive, provides a direct connection between the Pacific Manor shopping area, Pacifica's northern neighborhoods and beyond. The overcrossing and its intersections must handle a variety of

different travel movements, and have dimensions that make these movements difficult for trucks and buses. To alleviate these circulation concerns, the Manor Drive overcrossing would be widened, and signal control is recommended to be added at the intersections of Manor Drive with Oceana Boulevard and Palmetto Avenue. The project would also include a new on-ramp to SR 1 from Oceana at Milagra Drive. The overcrossing improvement was identified in the 2004 extension of Measure A. The project is currently under environmental review and will take two to three years to complete after the environmental review has concluded.

Additional Improvements to Accommodate Buildout

Additional improvements are justified based on the analysis of existing traffic conditions and projected future traffic conditions with projected growth during the planning period, compared to the City's level of service standards as described in the following sections. These improvements are supported by Plan policies. Existing and modeled future traffic conditions are described in more detail in the Impact Analysis section.

Planned Transit Improvements

Regular service updates to SamTrans bus lines are expected as part of an overall system efficiency plan, but no large-scale improvements are expected. Neither BART nor Caltrain have planned improvements that would change service levels in the vicinity of Pacifica.

The Congestion Management Plan (CMP), most recently adopted in 2011, renews support from the City/County Association of Governments of San Mateo County (C/CAG) for a variety of congestion relief programs. These includes the Local Transportation Services program, which helps to fund transportation services that meet the unique characteristics and needs of a jurisdiction. Funds are awarded on a competitive basis. This program may help to support existing or future local bus service in Pacifica.

REGULATORY SETTING

State Regulations

Assembly Bill 1358

According to Assembly Bill (AB) 1358, the 2008 California Complete Streets Act, all cities and counties are required to plan for the development of multimodal transportation networks in their general plans beginning in January 2011. Upon any substantive revision of the circulation element of the general plan, the legislative body of a city or county is required to modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, and maintaining all State highways. Caltrans has guidelines for traffic operations on State Highway facilities. Caltrans recommends a target LOS at the threshold between LOS C and LOS D. If the location under existing conditions operates worse than the appropriate target LOS, then the existing LOS should be maintained. Through its Bicycle Transportation Account, Caltrans sets the requirements for the content of bicycle master plan and requires an adopted plan to be eligible for state bicycle funding.

California Public Utility Commission

The California Public Utility Commission (PUC) is the state agency with regulatory and safety oversight over railroad rail transit, and passenger transportation companies in California.

California Transportation Commission Regional Transportation Plan Guidelines

California law relating to the development of the Regional Transportation Plans (RTPs) is primarily reflected in Government Code Section 65080. Pursuant to Government Code section 65080(d), Metropolitan Planning Organizations (MPOs) that are located in nonattainment areas must update their RTPs at least every four years. If the current RTP is determined to be adequate such that an update is not warranted, the MPO may re-adopt the current RTP.

The RTP Guidelines require that an RTP addresses three distinct elements—a policy element, an action element, and a financial element. In addition, when applicable, RTPs shall be consistent with federal planning and programming requirements and shall conform to the RTP Guidelines adopted by the California Transportation Commission (CTC). The CTC cannot program projects that are not identified in the RTP.

Under Government Code Section 14522, the CTC is authorized to prepare guidelines to assist in the preparation of RTPs. The CTC's RTP guidelines suggest that projections used in the development of an RTP should be based upon available data (such as from the Bureau of the Census), use acceptable forecasting methodologies, and be consistent with the Department of Finance baseline projections for the region. The guidelines further state that the RTP should identify and discuss any differences between the agency projections and those of the Department of Finance. The most recent update to the RTP guidelines was published in 2010, and includes new provisions for complying with Senate Bill 375 (see below), as well as new guidelines for regional travel demand modeling.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (California Senate Bill 375) requires that metropolitan planning organizations (MPOs) in California prepare a Sustainable Communities Strategy (SCS) for meeting their greenhouse gas reduction targets, through coordinating planning for land use, transportation, and housing. The SCS demonstrates how the region will meet its greenhouse gas (GHG) reduction targets through

integrated land use, housing and transportation planning. The SCS must identify a transportation network that is integrated with the forecasted development pattern for the plan area and will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board.

Senate Bill 1339

Senate Bill 1339 authorizes MTC (Metropolitan Transportation Commission) and BAAQMD (the Bay Area Air Quality Management District) to jointly adopt a commute benefit ordinance that requires major Bay Area employers to offer their employees certain types of commute benefits, such as pre-tax contributions towards public transit passes or commute shuttle services. The bill authorizes MTC and BAAQMD to implement the program through 2017, at which point state legislative action would be required to continue the ordinance.

Plan Bay Area

The MTC, BAAQMD, Association of Bay Area Governments (ABAG), and Bay Conservation and Development Commission (BCDC) adopted “Plan Bay Area” in July 2013. Plan Bay Area is an integrated long-range land-use/housing plan and transportation plan and demographic and economic forecast for the nine-county region of the San Francisco Bay Area. Plan Bay Area functions as both the SCS and RTP for the region, and coordinates land use and transportation in order to reduce greenhouse gases emissions for cars and light-duty trucks for the region through the year 2040.

Local Standards

Level of Service Standards

Level of Service (LOS) is a measure of the degree of vehicle congestion that occurs during peak travel periods and is the traditional measure of roadway and intersection performance. Level of Service can range from “A” representing free-flow conditions, to “F” representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for a peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity.

C/CAG Level of Service

The City/County Association of Governments (C/CAG) of San Mateo County regularly releases a Congestion Management Program (CMP) which identifies and monitors congestion and LOS at certain intersections and roadway segments. The most recent CMP is from 2011. The intersections and roadway segments in the CMP are generally operating at high congestion levels, and special significance criteria have been adopted to ensure conditions do not deteriorate.

Three roadway segments partly in Pacifica—SR 1 from the San Francisco County line to Linda Mar Boulevard; SR 1 from Linda Mar Boulevard to Frenchmans Creek Road; and SR 35 from the San Francisco County line to Sneath Lane—are identified in the 2011 Congestion

Management Program as having a LOS threshold of E for each of the roadway segments partly within the Planning Area. No intersections identified under the 2011 CMP are located in Pacifica. **Table 3.2-4** describes C/CAG’s Level of Service descriptions for the types of roadways in the CMP that are partly within the Planning Area.

Table 3.2-4: C/CAG Level of Service Descriptions

<i>LOS</i>	<i>Freeways and Multilane Highways</i>	<i>Two-Lane Highways</i>
A	Highest quality of service with free-flow conditions and a high level of maneuverability.	Free-flow conditions with a high level of maneuverability. Passing is easy to accomplish.
B	Free-flow conditions, but presence of other vehicles is noticeable. Minor disruptions easily absorbed.	Stable operations with passing demand approaching passing capacity.
C	Stable operations, but minor disruptions cause significant local congestion.	Stable operations, but with noticeable increases in passing difficulty.
D	Borders on unstable traffic flow with ability to maneuver severely restricted due to congestion.	Approaching unstable traffic flow. Passing demand is high while passing capacity approaches zero.
E	Unstable operations with conditions at or near capacity. Disruptions cannot be dissipated and cause bottlenecks to form.	Unstable operations. Passing is virtually impossible and platooning becomes intense.
F	Forced or breakdown flow with bottlenecks forming at locations where demand exceeds capacity. Speeds may drop to zero.	Heavily congested traffic flow with traffic demand exceeding capacity. Speeds may drop to zero.

Source: C/CAG, San Mateo County Congestion Management Program, 2011.

City of Pacifica Approach

The most critical congestion, as outlined above, occurs on SR 1 and SR 35, where certain intersections and roadway segments currently operate at LOS E or F during peak periods. The City/County Association of Governments of San Mateo County’s Congestion Management Program (CMP) uses LOS E as the threshold for acceptable traffic operations on these roadways in Pacifica. For streets that are not within the CMP, the City’s focus has been on limiting further deterioration of traffic conditions, by evaluating the significance of impacts of new development on highway congestion, and requiring mitigation. The City of Pacifica uses an unofficial Level of Service standard of LOS D for City streets.

Impact Analysis

SIGNIFICANCE CRITERIA

Implementation of the proposed General Plan would have a potentially significant transportation/traffic impact if it would:

- Criterion 1:** Cause traffic operations at any intersection along SR 1 or SR 35 in Pacifica to deteriorate from an acceptable level, determined by the City to be LOS “E”, to an unacceptable level (“F”). These LOS standards are established by the 2011 San Mateo County Congestion Management Program (CMP).
- Criterion 2:** Cause traffic operations at any other intersection to deteriorate from an acceptable level, determined by the City to be LOS “D”, to an unacceptable level (“E” or “F”); to deteriorate from “E” to “F”; or for intersections currently operating at LOS “F”, for delay to increase by more than 15 percent in either the AM or PM peak hour.
- Criterion 3:** Cause an increase in congestion along SR 1 or SR 35 in Pacifica that causes level of service (LOS) to deteriorate from an acceptable level, determined by the City/County Association of Governments to be LOS “E” for these roadway segments, to an unacceptable level (LOS “F”). These LOS standards are established by the 2011 San Mateo County Congestion Management Program (CMP).
- Criterion 4:** Cause traffic operations on any roadway segment on City of Pacifica streets not including SR 1 or SR 35 to deteriorate from an acceptable level, determined by the City to be LOS “D”, to an unacceptable level (“E” or “F”).
- Criterion 5:** Result in inadequate emergency access; or
- Criterion 6:** Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

METHODOLOGY

To determine existing LOS, traffic conditions for the study intersections were evaluated using the methodologies provided in the 2000 Highway Capacity Manual (HCM). The new C/CAG travel forecasting model⁷ was used to forecast future volumes at these intersections based on buildout of the General Plan based on projected demand for new housing and non-residential space, as summarized in the Land Use chapter.

⁷ C/CAG adopted its new Travel Forecasting Model in 2011, with a forecast year of 2035. The new model may result in slight differences in baseline travel conditions compared to what was reported in the Pacifica General Plan Existing Conditions Report (2010), but will ensure more consistency with regional modeling.

Sections of the roadway segments detailed in the CMP were further analyzed in the General Plan, in addition to other roadway segments not covered in the CMP. Roadway segment volumes were developed from the October 2008 data collection with the exception of six segments: SR 1 from Sea Bowl Lane to Fassler Avenue, SR 1 from Fassler Avenue to Crespi Drive, SR 1 from Fassler Avenue to Reina del Mar Avenue, SR 1 from Reina del Mar Avenue to Fassler Avenue, SR 1 from Reina del Mar Avenue to Westport Drive, and SR 1 from Westport Drive to Reina del Mar Avenue. Volumes for these roadway segments were derived from the SR 1/Calera Parkway Project Final Traffic Operations Report (July 2008), to present a more uniform technical analysis. The LOS results, however, differ from the results given in the Calera Parkway Report because of a difference in modeling methods. The Calera Parkway report makes use of microsimulation to determine average delay, based on statistical averages of simulated vehicle movements whereas this report makes use of the Traffix software, which is consistent with HCM methodology and level of service determinations. The C/CAG travel forecasting model was used to forecast future volumes on these roadway segments in 2035 based on development projections and planned land uses. Traffic modeling results are provided in Appendix B.

ANALYSIS RESULTS

Traffic Conditions

Intersection Operating Conditions

Level of service calculations were performed at 11 intersections for the weekday AM and PM peak hours, in October 2008.⁸ Two of these intersections—Manor Drive and Palmetto Avenue and Manor Drive and Oceana Boulevard—were studied for the new Walgreens store. Intersection volumes for two other intersections—SR 1 and Reina del Mar Avenue and SR 1 and Fassler Avenue—were adopted from the SR 1/Calera Parkway Project Final Traffic Operations Report dated July 2008. Intersection delays are based on analysis performed for the Pacifica General Plan in December 2008, resulting in slight differences from the Calera Parkway data. Even with these differences, the LOS at these two intersections for the SR 1/Calera Parkway Report and the Pacifica General Plan are reported as unacceptable for both the peak periods.

Of the 11 study intersections five are CMP intersections which have a significance threshold of LOS E. As shown in **Table 3.2-5**, two of the five CMP intersections currently operate at unacceptable LOS F during the AM peak hour while three of the five intersections do so during the PM peak hour. At Plan Buildout (2035), four of the intersections would operate at LOS F in both the the AM and PM peak hours, if improvements were not made. Improvements would allow CMP intersections to operate at acceptable conditions, as described under Impact 3.2-1.

⁸ The AM peak hour is the highest one-hour period between 7:00 AM and 9:00 AM while the PM peak hour is the highest one-hour traffic volume between 4:00 PM and 6:00 PM.

Of the 11 study intersections six are non-CMP intersections which have a significance threshold of LOS D. As shown in **Table 3.2-5**, one of the six intersections currently operates at LOS F during both the AM and PM peak hours: the intersection of Hickey Boulevard and Gateway Drive. While the intersection of Fassler Avenue and Crespi Drive operates acceptably during the AM peak hour, the northbound approach operates at LOS E during the AM peak hour. At Plan Buildout, the same two intersections would have unacceptable operations if additional improvements were not made. Improvements would allow these intersections to operate at acceptable conditions, as described under Impact 3.2-2.

Table 3.2-5: Peak-Hour Intersection Operations Summary – Existing and Plan Buildout Conditions

	Intersection	Control	Peak Hour	Existing		Plan Buildout (2035)	
				Delay ¹	LOS ²	Delay ¹	LOS ²
CMP Intersections	1 Hickey Boulevard / SR 35	Signalized	AM	65.0	E	127.9	F
			PM	71.8	E	116.6	F
	2 Reina del Mar Avenue / SR 1 ³	Signalized	AM	175.0	F	211.7 (140.5) ⁶	F (F) ⁶
			PM	135.5	F	236.3 (150.6) ⁶	F (F) ⁶
	3 Fassler Avenue / SR 1 ³	Signalized	AM	93.8	F	143.3 (72.7) ⁶	F (E) ⁶
PM			94.3	F	155.1 (79.6) ⁶	F (E) ⁶	
4 Crespi Drive / SR 1	Signalized	AM	25.4	C	38.2	C	
		PM	18.3	B	48.7	D	
5 Linda Mar Boulevard / SR 1	Signalized	AM	65.1	E	83.1	F	
		PM	107.0	F	96.0	F	
Non-CMP Intersections	6 Hickey Boulevard / Gateway Drive	AWSC ⁵	AM	68.0	F	71.9	F
			PM	82.8	F	87.0	F
	7 Manor Drive / Palmetto Avenue ⁴	AWSC ⁵	AM	14.9	B	12.7	B
			PM	24.8	C	13.2	B
	8 Manor Drive / Oceana Boulevard ⁴	AWSC ⁵	AM	26.3	D	13.8	B
			PM	18.6	C	16.5	C
	9 Fassler Avenue / Crespi Drive	Unsignalized	AM	6.4		7.6	
			PM	1.4		7.4	
	NB Approach	Unsignalized	AM	49.1	E	60.2	F
			PM	21.4	C	62.7	F
	WB Left	Unsignalized	AM	8.1	A	8.3	A
			PM	9.4	A	8.2	A
	10 Fassler Avenue / Terra Nova Boulevard		AM	10.1		10.1	
			PM	4.1		13.3	
NB Approach	Unsignalized	AM	20.5	C	21.7	C	
		PM	13.4	B	26.2	D	
WB Left	Unsignalized	AM	8.0	A	8.1	A	

Table 3.2-5: Peak-Hour Intersection Operations Summary – Existing and Plan Buildout Conditions

Intersection	Control	Peak Hour	Existing		Plan Buildout (2035)	
			Delay ¹	LOS ²	Delay ¹	LOS ²
II Oddstad Boulevard / Terra Nova Boulevard	AWSC ⁵	PM	9.1	A	8.0	A
		AM	10.7	B	11.4	B
		PM	10.7	B	10.7	B

¹ Delay is in seconds per vehicle. For signalized intersections, delay is based on average stopped delay. For unsignalized intersections, delay is based at the worst approach for two-way stop controlled intersection.

² LOS = Level of Service

³ Intersection volumes were adopted from SR 1/Calera Parkway Project Final Traffic Operations Report, July 2008.

⁴ These traffic conditions are based on measurements from the traffic analysis for Walgreen's. DKS' 2009 analysis found LOS B for both intersections.

⁵ AWSC = All-way stop control

⁶ (xx) Indicates delay/LOS if the Calera Parkway Expansion Project is implemented.

Source: DKS Associates, 2013.

Roadway Segment Operating Conditions

Of the 26 study segments, 16 are CMP roadway segments which have a significance threshold of LOS "E". As shown in **Table 3.2-6**, three of the CMP segments currently operate at unacceptable LOS F during the AM peak hour: SR1 from Fassler Avenue to Reina del Mar Avenue, SR 1 from Reina del Mar Avenue to Mori Point Road, and SR 1 from Mori Point Road to Westport Drive. Three of the CMP segments currently operate at unacceptable LOS F during the PM peak hours: SR 1 from Westport Street to Mori Point Road, SR 1 from Mori Point Road to Reina del Mar Avenue, and Reina del Mar Avenue to Fassler Avenue. At Plan Buildout (2035), in the absence of roadway improvements, operations along these roadway segments would deteriorate. In addition, the segment of SR 1 between San Pedro Avenue and Linda Mar Boulevard would operate at LOS F during both the AM and PM peak hours; the segments of SR 1 from Linda Mar Boulevard to Crespi Drive and from Sea Bowl Lane to Fassler Avenue would operate at LOS F in the AM peak hour; and the segment of SR 1 from Fassler Avenue to Crespi Drive would operate at LOS F in the PM peak hour. Meanwhile, the segment of SR 35 from Hickey Boulevard to Timberhill Court would fall from LOS E to LOS F in the PM peak hour. Improvements would mitigate but not eliminate these impacts, as summarized under Impact 3.2-3.

Of the 26 study segments, 10 are non-CMP roadway segments which have a significance threshold of LOS "D". For non-CMP roadway segments, none operate at LOS E or F during the AM or PM peak hours.

Table 3.2-6: Peak Hour Roadway Segment Operations Summary – Existing and Plan Buildout Conditions

Roadway Segment	Class	Location	Measure of Effectiveness (MOE)	Peak Hour	Existing ¹		Plan Buildout (2035)	
					MOE ¹	LOS ²	MOE ¹	LOS ²
SR 35	Type I	From South of SR I to Hickey Blvd	V/C Ratio	AM	0.44	A	0.66	B
				PM	0.73	C	0.81	D
SR 35	Type I	From Hickey Blvd to South of SR I	V/C Ratio	AM	0.77	C	0.76	C
				PM	0.51	A	0.78	C
SR 35	Type I	From Hickey Blvd to Timberhill Ct	V/C Ratio	AM	0.79	C	0.73	C
				PM	0.92	E	1.25	F
SR 35	Type I	From Timberhill Ct to Hickey Blvd	V/C Ratio	AM	0.86	D	0.84	D
				PM	0.75	C	0.64	B
SR I	2-Lane Highway	Between San Pedro Ave and Linda Mar Blvd	V/C Ratio	AM	0.35	D	1.03	F
				PM	0.43	D	1.05	F
SR I	4-Lane Highway	From Linda Mar Blvd to Crespi Dr	V/C Ratio	AM	0.65	C	1.04	F
				PM	0.44	B	0.69	C
SR I	4-Lane Highway	From Crespi Dr to Linda Mar Blvd	V/C Ratio	AM	0.29	A	0.68	C
				PM	0.71	D	0.98	E
SR I	4-Lane Highway	From Crespi Dr to Sea Bowl Ln	V/C Ratio	AM	0.80	D	1.10	D
				PM	0.48	B	0.69	C
SR I	4-Lane Highway	From Sea Bowl Ln to Fassler Ave ³	V/C Ratio	AM	0.78	D	1.10 (0.73) ⁵	F (D) ⁵
				PM	0.48	B	0.69 (0.46) ⁵	C (B) ⁵
SR I	4-Lane Highway	From Fassler Ave to Crespi Dr ³	V/C Ratio	AM	0.32	B	0.68	C
				PM	0.80	D	1.05	F
SR I	4-Lane Highway	From Fassler Ave to Reina del Mar Ave ³	V/C Ratio	AM	1.21	F	1.51 (1.01) ⁵	F (F) ⁵
				PM	0.65	C	1.00 (0.66) ⁵	E (C) ⁵
SR I	4-Lane Highway	From Reina del Mar Ave to Fassler Ave ³	V/C Ratio	AM	0.53	C	0.98 (0.65)	E (C) ⁵
				PM	1.22	F	1.47 (0.98)	F (E) ⁵

CMP Segments

Chapter Three: Settings, Impacts, and Mitigation Measures
3.2: Transportation

Table 3.2-6: Peak Hour Roadway Segment Operations Summary – Existing and Plan Buildout Conditions

Roadway Segment	Class	Location	Measure of Effectiveness (MOE)	Peak Hour	Existing ¹		Plan Buildout (2035)	
					MOE ¹	LOS ²	MOE ¹	LOS ²
SR I	4-Lane Highway	From Reina del Mar Ave to Mori Point Rd ³	V/C Ratio	AM	1.26	F	1.44 (0.96) ⁵	F (E) ⁵
				PM	0.66	C	1.00 (0.66) ⁵	E (C) ⁵
SR I	4-Lane Highway	From Mori Point Rd to Reina del Mar Ave	V/C Ratio	AM	0.55	C	0.98 (0.65) ⁵	E (C) ⁵
				PM	1.29	F	1.41 (0.94) ⁵	F (E) ⁵
SR I	4-Lane Highway	From Mori Point Rd to Ave to Westport Dr ³	V/C Ratio	AM	1.26	F ⁴	1.44	F
				PM	0.66	C	1.00	E
SR I	4-Lane Highway	From Westport Dr to Mori Point Rd ³	V/C Ratio	AM	0.55	C	0.98	E
				PM	1.29	F	1.41	F
Hickey Blvd	Type II	From SR 35 to Gateway	V/C Ratio	AM	0.18	A	0.24	A
				PM	0.52	A	0.26	A
Hickey Blvd	Type II	From Gateway to SR 35	V/C Ratio	AM	0.51	A	0.25	A
				PM	0.37	A	0.24	A
Reina del Mar Ave	Type I	From SR I to Lauren Ave	V/C Ratio	AM	0.32	A	0.14	A
				PM	0.30	A	0.00	A
Reina del Mar Ave	Type I	From Lauren Ave to SR I	V/C Ratio	AM	0.38	A	0.00	A
				PM	0.17	A	0.12	A
Fassler Ave.	Type I	From SR I to Ebken St	V/C Ratio	AM	0.21	A	0.36	A
				PM	0.45	A	0.47	A
Fassler Ave.	Type I	From Ebken St to SR I	V/C Ratio	AM	0.43	A	0.48	A
				PM	0.18	A	0.35	A
Crespi Dr	Type II	From SR I to Roberts Rd	V/C Ratio	AM	0.10	A	0.00	A
				PM	0.20	A	0.07	A
Crespi Dr	Type II	From Roberts Rd to SR I	V/C Ratio	AM	0.20	A	0.06	A

Non-CMP Segments

Table 3.2-6: Peak Hour Roadway Segment Operations Summary – Existing and Plan Buildout Conditions

Roadway Segment	Class	Location	Measure of Effectiveness (MOE)	Peak Hour	Existing ¹		Plan Buildout (2035)	
					MOE ¹	LOS ²	MOE ¹	LOS ²
				PM	0.10	A	0.00	A
Linda Mar Blvd	Type II	From SR I to De Solo Dr	V/C Ratio	AM	0.22	A	0.15	A
				PM	0.50	A	0.23	A
Linda Mar Blvd	Type II	From De Solo Dr to SR I	V/C Ratio	AM	0.39	A	0.33	A
				PM	0.32	A	0.16	A

1 MOE = Measures of Effectiveness. For arterials, MOE is measured in v/c ratios (volume to capacity ratios). For two-lane highways and four-lane highways, MOE is measured in density (passenger cars per mile per lane).

2 LOS = Level of Service is based on 2007 C/CAG of San Mateo County Final Congestion Management Plan criteria

3 Roadway segment volumes were adopted from SR I/Calera Parkway Project Final Traffic Operations Report, July 2008

4 Based on actual field observation and as implied in the SR I/Calera Parkway Project Final Traffic Operations Report, July 2008

5 (xx) Indicates delay/LOS if the Calera Parkway Expansion Project is implemented

Source: DKS Associates, 2013.

Traffic Signal Warrant Analysis

Six unsignalized intersections were investigated to determine whether traffic signals were warranted. Section 4C of the California Manual on Uniform Traffic Control Devices (MUTCD) establish signal warrant criteria and address stopped time delay and traffic volume. **Table 3.2-7** summarizes the results of the signal warrant analysis. Two of the six intersections studied currently meet signal warrant criteria for the AM and PM peak hours: Hickey Boulevard and Gateway Drive, and West Manor Drive and Palmetto Avenue.

At Plan Buildout (2035), the intersections of Hickey Boulevard and Gateway Drive, and Fassler Avenue and Terra Nova Boulevard would meet the signal warrant criteria for the AM and PM peak hours. The West Manor Drive and Palmetto Avenue intersection would meet the signal warrant analysis for the PM peak hour, but not for the AM peak hour. The 2035 C/CAG model indicates that traffic volumes for this intersection will decrease between the existing study year and 2035. The reduction in traffic volumes at this intersection is great enough to not meet the signal warrant criteria for 2035.

Table 3.2-7: Existing Conditions Signal Warrant Analysis

Intersection	Existing		Plan Buildout (2035)	
	AM Peak Hour Warrant Met?	PM Peak Hour Warrant Met?	AM Peak Hour Warrant Met?	PM Peak Hour Warrant Met?
Hickey Boulevard / Gateway Drive	Yes	Yes	Yes	Yes
West Manor Drive / Palmetto Avenue	Yes	Yes	No	Yes
Manor Drive / Oceana Boulevard	No	No	No	Yes
Fassler Avenue / Crespi Drive	No	No	No	No
Fassler Avenue / Terra Nova Boulevard	No	No	Yes	Yes
Oddstad Boulevard / Terra Nova Boulevard	No	No	No	No

Source: DKS Associates, 2013.

Although, as noted in **Table 3.2-7**, the intersections of Manor Drive and Oceana Boulevard, and West Manor Drive and Palmetto Avenue, do not satisfy all of the technical conditions of a peak-hour traffic signal warrant, there still remains a confirmed need for traffic improvements in the area. These two intersections and the Highway 1 overcrossing that connect them are the bottlenecks affecting traffic patterns for several blocks in all directions. To improve overall mobility in the area and relieve the congestion and traffic diversion affecting other nearby intersections and streets, these intersections need to be modified in terms of traffic control (traffic signalization), efficiency (widening

of the overcrossing to provide shoulders and flaring curb returns without changing the existing number of lanes), and Highway 1 access (adding the Milagra Drive on-ramp).

The City's planned improvements to the two intersections as well as the overcrossing and Milagra Drive on-ramp will allow traffic to flow through the area in a much better manner, by remaining on the intended streets and reducing the diversion to side streets and neighborhoods.

IMPACT SUMMARY

Buildout of the General Plan will add substantial traffic on local and regional transportation facilities. Certain facilities are already experiencing some congestion. Where reasonably feasible, improvements to these facilities have been proposed in the General Plan circulation system to improve levels of service. Rather than widen all City roadways to achieve an LOS target, the General Plan circulation map has been developed to provide vehicular mobility while balancing automotive needs with those of bicyclists, pedestrians, and transit users to create a transportation network consistent with the goals of "Complete Streets" legislation.

Where available right of way allows and where widening or other improvements to ameliorate vehicle congestion could be undertaken without compromising the safety and efficiency of other travel modes, the General Plan Circulation Diagram designates the facility for improvement. Furthermore, roadway widening projects were identified with consideration of available right of way so as to minimize impacts to existing neighborhoods. However, in some locations, widening roadways to accommodate traffic projections would conflict with competing General Plan policies to provide a balanced transportation system. Intersections and roadways along these segments will likely experience delays during peak periods. Other intersections not on these corridors may also experience moments of delays during peak commute periods. The proposed General Plan acknowledges some vehicular congestion in exchange for balanced improvement projects cognizant of all travel modes; however, the impact is considered significant and unavoidable relative to the defined threshold. However, emergency access would not be impeded by the increase in vehicular congestion.

Impact

3.2-1 Implementation of the proposed General Plan would not cause traffic operations at any intersection along SR 1 or SR 35 in Pacifica to deteriorate from an acceptable level, determined by the City to be LOS "E", to an unacceptable level "F". These standards are established by the 2011 San Mateo County Congestion Management Program. (*Less Than Significant*)

An increase in congestion causing traffic operations at any intersection along SR 1 or SR 35 in Pacifica to deteriorate from an acceptable level, determined by the City to be LOS "E", to an unacceptable level ("F") would be considered an impact because it would

conflict with the Congestion Management Program (CMP) and related Countywide transportation planning measures.

For the Plan Buildout (2035) four of the five CMP intersections would operate at unacceptable LOS F during the AM peak hour. Two intersections, Hickey Boulevard and SR 35 and Linda Mar Boulevard and SR 1 would deteriorate in LOS from E to F between the Existing and Plan Buildout (2035) Conditions. Four of the five intersections would operate at LOS F during the PM peak hour. While three of these intersections operate at LOS F today, the intersection of Linda Mar Boulevard and SR 1 would decline from LOS E to F, resulting in a significant impact. Improvements supported by Plan policies would allow CMP intersections to operate at acceptable conditions, as summarized below:

- **SR 35 and Hickey Boulevard Intersection.** If the signal was optimized, a westbound right-turn lane added, a westbound left-turn lane added, and all left-turn movements were “protected-permitted” then the intersection would operate at LOS E during the AM and PM peak hour.
- **SR 1 and Reina del Mar Avenue Intersection.** If the Calera Parkway project was implemented then the intersection would operate at LOS F during the AM and PM peak hour, however the delay would be less than 15% over the existing conditions.
- **SR 1 and Fassler Avenue Intersection.** If the Calera Parkway project was implemented then the intersection would operate at LOS E during the AM and PM peak hour.
- **SR 1 and Linda Mar Boulevard Intersection.** If the signal timing was updated to allow for changes in demand then the intersection would operate at LOS E during the AM and PM peak hour.

The Plan also includes a policy to accept LOS F as an interim measure before improvements are planned, designed and implemented. These and other policies outlined below would result in these intersections operating at LOS E during the AM and PM peak hours resulting in a less-than-significant impact.

Proposed General Plan Policies that Reduce the Impact

Circulation Element

- CI-G-1 **Comprehensive Circulation System.** Make improvements to create a comprehensive transportation system that includes streets and highways providing access within the City and to the region; transit facilities; a continuous network of sidewalks and bicycle routes; and transportation management programs and measures to encourage the efficient use of these facilities and services.
- CI-G-7 **Congestion on Highway 1.** Implement solutions to ease the traffic congestion that occurs on Highway 1 near the Reina Del Mar, Fassler Avenue, and Linda

Mar Boulevard intersections. Strive for the greatest benefit with the least environmental impact possible.

- CI-G-8 **Congestion on Hickey and Skyline.** Improve travel to and from Pacifica's northern neighborhoods by easing congestion on Hickey Boulevard through coordinated signalization or other changes, and working with the County to improve operations on SR 35 (Skyline Boulevard).
- CI-G-9 **Coordination of Local and Regional Actions.** Coordinate local transportation planning and improvements with State, Regional and County agencies to ensure consistency with the Regional Transportation Plan, the Congestion Management Program, and other regional actions.
- CI-I-1 **Connective Street Network.** Require new streets created as part of new development to continue existing street patterns, and include stub access points to adjacent undeveloped areas.
- CI-I-10 **SR 1 and Linda Mar Operations.** Work with San Mateo County Transportation Authority (SMCTA) to evaluate, design and implement improvements to the intersection of Linda Mar Boulevard and SR 1. Improvements that would mitigate regional growth may include providing a westbound right turn overlap phase and increasing the overall cycle length, if warranted.
- CI-I-13 **SR 35 and Hickey Boulevard Intersection Improvements.** Work with San Mateo County to evaluate, design and implement improvements to the intersection of SR 35 and Hickey Boulevard to ease travel on the primary east-west travel route for Pacifica's northern neighborhoods. Improvements that would mitigate regional growth may include adding westbound right- and westbound left-turn lanes and making all left-turn movements "protected-permitted."
- CI-I-15 **Strategies to Reduce School-Related Peak Hour Auto Congestion.** Work with Pacifica School District and Jefferson Union High School District to promote adoption of staggered hours, car-pooling, and use of transit to reduce traffic congestion during peak hours.
- This policy applies especially to Vallemar School and the Pacifica School District offices, where trips contribute to traffic congestion around SR 1 and Reina del Mar Avenue.*
- CI-I-20 **Interim Standard for Intersection of Linda Mar Boulevard and SR 1 and Hickey Boulevard and SR 35.** Accept LOS F at the intersections of Linda Mar Boulevard and SR 1 and Hickey Boulevard and SR 35 as an interim standard until feasible traffic improvements can be designed, funded and constructed.

- CI-I-21 **Monitor Traffic Congestion at Key Intersections and Roadway Segments.** Periodically monitor levels of service at intersetions and roadway segments where existing LOS is E or lower.

Impact

- 3.2-2 Implementation of the proposed Plan would cause traffic operations at any other intersection to deteriorate from an acceptable level, determined by the City to be LOS “D”, to an unacceptable level (“E” or “F”); to deteriorate from “E” to “F”; or for intersections currently operating at LOS “F”, for delay to increase by more than 15 percent in either the AM or PM peak hour. (Significant and Unavoidable)**

Hickey Boulevard and Gateway Drive, one of the six non-CMP intersections, currently operates at LOS F. At Plan Buildout (2035), operations would deteriorate; however, the delay would increase by less than 15% resulting in a less-than-significant impact. Improvements supported by the Plan would allow this intersection to operate at LOS C.

At Plan Buildout, the intersection of Fassler Avenue and Crespi Drive would operate acceptably during the AM and PM peak hours, but the northbound approach would operate at LOS F. If the intersection was signalized, then the intersection would operate at LOS A during the AM and PM peak hour. Making changes to this signal to allow the northbound approach to operate at an acceptable level could come at the expense of other key Plan goals, including the creation of complete streets, support for multi-modal circulation, pedestrian safety, and the existing land use character of the neighborhood. As a result, traffic would operate at an unacceptable level at the northbound approach to this intersection, resulting in a significant impact.

Proposed General Plan Policies that Reduce the Impact

Circulation Element

Policies CI-G-1, CI-I-1, CI-I-14, and CI-I-21 shown under Impact 3.2-1, as well as the following:

- CI-I-14 **Hickey Boulevard and Gateway Drive Intersection Improvements.** Add signal control to the intersection of Hickey Boulevard and Gateway Drive, with signal timing to facilitate traffic movement.
- CI-I-19 **Vehicle Level of Service for Other Roadways and Intersections.** For all roadways and intersections not included in the CMP network, strive to maintain LOS D for vehicles during peak periods. Allow level of service to exceed this threshold under the following circumstances:
- Constraints on development as would be required to achieve or maintain these standards would adversely impede achievement of this

Plan's economic, land use and community development, and environmental goals and policies;

- Mitigation of congestion would negatively affect transit, bicycle or pedestrian circulation, or would conflict with General Plan goals for these alternative modes of circulation, for example by increasing crossing distances, increasing pedestrian safety risk, or restricting bicycle or transit access;
- Traffic congestion is a result of an effort to promote transit ridership and/or access, including the development of higher-density development in mixed use areas; or
- A demonstrated significant increase in transit ridership, carpooling, bicycling, and/or walking is achieved.

Mitigation Measures

There are no additional mitigation measures that would reduce or eliminate the significant impact described above. In development of the proposed Circulation Diagram, every intersection projected to operate below LOS Standards at buildout was examined individually to determine whether an improvement would be feasible. Where improvements were feasible, they have been incorporated into the proposed plan, and the intersections are no longer shown to operate below LOS Standards at buildout. Therefore, the intersections that remain below the threshold are those for which no mitigating improvement was determined feasible without contradicting other proposed General Plan policies (e.g. adding automobile lanes by removing bike lanes and sidewalks, which would not support Complete Streets that serve all modes) or by taking private property.

Impact

3.2-3 Implementation of the proposed Plan would cause an increase in congestion along SR 1 or SR 35 in Pacifica that causes level of service (LOS) to deteriorate from an acceptable level, determined by the City/County Association of Governments to be LOS "E" for these roadway segments, to an unacceptable level (LOS "F"). These LOS standards are established by the 2011 San Mateo County Congestion Management Program (CMP). (Significant and Unavoidable)

For the Plan Buildout (2035) six of the 16 CMP roadway segments would operate at unacceptable LOS F during the AM peak hour. SR1 from Fassler Avenue to Reina del Mar Avenue, SR 1 from Reina del Mar Avenue to Mori Point Road, and SR 1 from Mori Point Road to Westport Drive would continue to operate at LOS F. SR 1 between San Pedro Avenue and Linda Mar Boulevard, SR 1 from Linda Mar Boulevard to Crespi Drive, and SR 1 from Sea Bowl Lane to Fassler Avenue would deteriorate from an acceptable LOS to F between the Existing and Plan Buildout (2035) Conditions.

Six of the 16 roadway segments would operate at LOS F during the PM peak hour. SR 1 from Westport Drive to Mori Point Road, SR 1 from Mori Point Road to Reina del Mar Avenue, and Reina del Mar Avenue to Fassler Avenue would continue to operate at LOS

F. SR 35 from Hickey Boulevard to Timberhill Court, SR 1 between San Pedro Avenue and Linda Mar Boulevard, and SR 1 from Fassler Avenue to Crespi Drive would deteriorate from an acceptable LOS to F between the Existing and Plan Buildout (2035) Conditions.

If the Calera Parkway project were to be implemented, roadway segment geometry would be modified at five locations for the Plan Buildout (2035) Condition: SR 1 from Sea Bowl Lane to Fassler Avenue, Fassler Avenue to Reina del Mar Avenue, from Reina del Mar Avenue to Fassler Avenue, from Reina del Mar Avenue to Mori Point Road, and from Mori Point Road to Reina del Mar Avenue. As shown in **Table 3.-8**, the LOS for each of these roadway segments would improve for the AM and PM peak hours. With the implementation of the project LOS would improve from an unacceptable LOS F to an acceptable LOS along SR 1 from Sea Bowl Lane to Fassler Avenue and from Reina del Mar Avenue to Mori Point Road during the AM peak hour and SR 1 from Mori Point Road to Reina del Mar Avenue and SR 1 from Reina del Mar Avenue to Fassler Avenue during the PM peak hour. However, the segments of SR from Fassler Avenue to Reina del Mar Avenue (AM peak); and between Mori Point Road and Westport Drive (AM and PM peak) would continue to operate at LOS F, resulting in a significant and unavoidable impact.

Other improvements supported by Plan policies would improve traffic conditions along CMP roadway segments. However, some segments would still operate at unacceptable levels of service, resulting in significant and unavoidable impacts:

- **SR 35 from Hickey Boulevard to Timberhill Court (PM peak).** While most of this traffic is not related to the expected employment and residential growth in Pacifica, the roadway is still within the City of Pacifica. An additional lane of travel in the Southbound direction between Timberhill Court and Hickey Boulevard would improve the roadway segment LOS to an acceptable level (E or better) resulting in a less-than-significant impact.
- **SR 1 between San Pedro Avenue and Linda Mar Boulevard (AM/PM peak).** Reducing traffic congestion that occurs on Highway 1 near the Linda Mar Boulevard intersection would improve the conditions, however no mitigating improvement was determined feasible without contradicting other proposed General Plan policies and this impact will remain significant.
- **SR 1 from Linda Mar Boulevard to Crespi Drive (AM peak).** Reducing traffic congestion that occurs on Highway 1 near the Linda Mar Boulevard intersection would improve the conditions, however no mitigating improvement was determined feasible without contradicting other proposed General Plan policies and this impact will remain significant.
- **SR 1 from Sea Bowl Lane to Fassler Avenue (AM peak).** If the Calera Parkway project was implemented then the segment would operate at LOS D during the AM peak hour, resulting in a less-than-significant impact.

- **SR 1 from Fassler Avenue to Crespi Drive (PM peak).** Reducing traffic congestion that occurs on Highway 1 near the Fassler Avenue intersection would improve the conditions, however no mitigating improvement was determined feasible without contradicting other proposed General Plan policies and this impact will remain significant.

Proposed General Plan Policies that Reduce the Impact

Circulation Element

Policies CI-G-4, CI-G-6, CI-G-7, CI-G-8, CI-G-9, CI-I-1, CI-I-2, CI-I-3, CI-I-10, CI-I-13, CI-I-15, CI-I-16, CI-I-17, and CI-I-21 listed under Impacts 3.2-1 and 3.2-2, as well as the following:

- CI-I-9 **SR 1 Improvements between South of Fassler and North of Reina del Mar.** Continue to work with the California Department of Transportation (Caltrans) and the San Mateo County Transportation Authority (SMCTA) to improve operations along SR 1.

Improvements to SR 1 should alleviate traffic congestion between north of Reina del Mar and south of Fassler Avenue while minimizing environmental impacts and impacts to adjacent land uses, ensuring adequate local access, and enhancing the community's image.

- CI-I-12 **SR 35 Improvements.** Work with San Mateo County to evaluate, design and implement improvements to SR 35 to relieve congestion along this roadway within Pacifica. Improvements that would mitigate regional growth may include adding one lane of travel in the southbound direction between Timberhill Court and Hickey Boulevard.

Most growth in traffic along SR 35 is unrelated to expected growth in Pacifica.

- CI-I-18 **Vehicle Level of Service on Roadways Included in the Congestion Management Program.** Accept an LOS E on SR 1 and SR 35, consistent with the C/CAG Congestion Management Program (CMP), in planning improvements.

Mitigation Measures

There are no additional mitigation measures that would reduce or eliminate the significant impact described above. In development of the proposed Circulation Diagram, every segment projected to operate below LOS Standards at buildout was examined individually to determine whether an improvement would be feasible. Where improvements were feasible, they have been incorporated into the proposed plan, and the roadways are no longer shown to operate below LOS Standards at buildout. Therefore, the roadways that remain below the threshold are those for which no mitigating improvement was determined feasible without contradicting other proposed General Plan policies (e.g. adding automobile lanes by removing bike lanes and sidewalks, which would not support Complete Streets that serve all modes) or by taking private property.

Impact

3.2-4 Implementation of the proposed Plan would not cause traffic operations on any roadway segment on City of Pacifica streets not including SR 1 or SR 35 to deteriorate from an acceptable level, determined by the City to be LOS “D”, to an unacceptable level (“E” or “F”). (*Less than Significant*)

For the Plan Buildout (2035) none of the non-CMP roadway segments would operate at LOS E or F during the AM or PM peak hours, resulting in a **less-than-significant impact**.

Proposed General Plan Policies that Reduce the Impact

None required.

Mitigation Measures

None required.

Impact

3.3-5 Implementation of the proposed General Plan would not result in inadequate emergency access. (*Less than Significant*)

Implementation of the proposed General plan and increases in regional travel passing through Pacifica would increase the amount of vehicular traffic in and around Pacifica, and may therefore increase the number of potential emergency access conflicts. Previously described intersection and roadway LOS analysis shows that the proposed General Plan may result in some facilities, specifically along SR 1, experiencing congestion during peak travel periods. However, potential improvements to the roadway network, such as the Calera Parkway project, would contribute to mitigating the impacts of additional traffic on emergency response times. Furthermore, traffic signal preemption devices on emergency vehicles, as well as emergency sirens, will improve emergency response times even in instances of intersection congestion during peak commute periods.

Proposed General Plan Policies that Reduce the Impact

Circulation Element

Policy CI-I-1 shown under Impact 3.2-1, as well as the following:

CI-G-3 **Safety.** Make safety a primary objective in street planning and traffic regulations.

CI-I-24 **Design for Safety.** Incorporate safety measures in improvement designs for intersections, roadways, pedestrians, transit, and bicycle facilities.

- CI-I-25 **Development on Unimproved Streets.** Continue to require a Site Development Permit for development on lots with unimproved streets to ensure off-site improvements meet City standards.

This policy will protect the visual and natural resource qualities of the hillsides and minimize adverse impacts on existing neighborhoods, drainage, traffic, land stability, and natural resources.

- CI-I-26 **Emergency Access.** Require developers to incorporate emergency access needs consistent with standards in Title 10 of the Municipal Code. Mitigation Measures

None required.

Impact

3.2-6 Implementation of the proposed General Plan would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. (Less than Significant)

The City of Pacifica has a number of policies, plans, and programs in place to support alternative transportation modes, such as the City of Pacifica Bicycle Plan, and an extensive system of bicycle and pedestrian facilities throughout the City. Increased residential density and a greater mix of uses will help create a more transit-supportive urban environment. The proposed General Plan will not widen all City roadways indiscriminately to achieve vehicular LOS D, as this could dissuade use of alternative transportation modes by promoting vehicular service above all other modes in designing improvements. Increased congestion on roadways, and the provision of improved access to alternative modes, may encourage increased use of alternative transportation modes. General Plan policies that seek to improve mode share and reduce the impact of new traffic on alternative transportation modes, to a less than significant level, are included below.

Proposed General Plan Policies that Reduce the Impact

Circulation Element

- CI-G-2 **Serve All Users.** Plan, design, build, and maintain transportation improvements to support safe and convenient access for all users with priority for “complete streets” projects that facilitate walking, bicycling and transit use wherever possible.
- CI-G-4 **Level of Service (LOS) for All Modes of Travel.** Assess the performance of the transportation system by measuring how well pedestrians, bicycles, and transit vehicles as well as automobiles are able to move within and through the community.

CI-I-2 **Complete Streets Design Approach.** Update the City’s engineering design standards to implement Complete Streets concepts, and include Complete Streets design principles in the planning of all circulation improvement projects. These principles include, but are not limited to:

- Maximizing connections with the existing circulation network;
- Minimizing ingress and egress points and consolidating entries;
- Providing public transit facilities and improvements;
- Providing bicycle and pedestrian facilities (bike lanes and sidewalks);
- Minimizing pedestrian crossing distances by providing curb extensions; medians with safety refuges, and other treatments;
- Improving safety by providing lighting and traffic calming devices for residential streets;
- Including landscaping (trees, medians, key intersections and gateways);
- Providing appropriate signage, including street signs, entry signs, and directional signs;
- Providing street furniture; and
- Maintaining on--street parking.

Any proposed development or transportation project that does not adequately incorporate complete streets concepts should be supported by findings of why all travel modes have not been accommodated. The Complete Streets approach should be applied to new roadway construction as well as to repaving projects.

CI-I-3 **Complete Streets in the Project Development Process.** Incorporate complete streets concepts at each stage of the development process for projects affecting the right-of-way, including the following:

- As part of design review, both at Phase I and Phase II, require documentation of how the “routine accommodation” of bicyclists and pedestrians has been satisfied in planning and design.;
- During project review and approval, ensure that the objectives and purpose are consistent with MTC directives on Complete Streets and Routine Accommodation;
- For projects subject to MTC’s Resolution 3765, as amended, work with MTC to secure approval of the Complete Streets checklist and submittal to MTC of all required documents.

Integrating Complete Streets considerations should require only minor additions to normal design, acquisitions, and approval guidelines.

CI-I-4 **Roadway Retrofits.** Identify opportunities to retrofit existing roadways to create complete streets, giving priority to arterial and collector streets where travel lanes

may be narrowed or where four lanes may be converted to three, including a center left turn lane, with bicycle facilities added in both cases.

Linda Mar Boulevard, Terra Nova Boulevard, Fassler Avenue, Palmetto Avenue, Esplanade Avenue, Monterey Road, Hickey Boulevard, Rosita Road, Crespi Drive, Oddstad Boulevard, Everglades Drive, Alicante Drive, Talbot Avenue, Inverness Drive, and Gateway Drive may all present opportunities for roadway retrofits. Roadway retrofits will also help to complete the bicycle network, as described in Section 5.4, and provide safety for cyclists. Ten- and eleven-foot travel lanes are often acceptable for auto and transit use, respectively, without adversely affecting capacity. Roadway retrofits will require additional analysis.

- CI-I-5 **Streetscape in Mixed Use Areas.** Require pedestrian-oriented amenities and design in visitor-oriented commercial and mixed use areas, including wider sidewalks, curb bulb-outs at key intersections, outdoor seating, and public art.

Priority streetscapes include Palmetto between Paloma and Clarendon; Montecito, Santa Rosa, and San Jose Avenues in West Sharp Park; Rockaway Beach Avenue and Dondee Way in Rockaway Beach; lower Crespi Drive and Linda Mar Boulevard in Linda Mar; Manor Drive and Aura Vista Drive in West Edgemar-Pacific Manor; and Oddstad and Terra Nova Boulevards and new streets created as part of redevelopment of the Park Mall site.

- CI-I-6 **Block Size and Maximum Street Spacing.** For new development at the Quarry site or Park Mall site, require streets to be designed to maximize connectivity for automobiles, cyclists, and pedestrians, with blocks between 200 and 600 feet in length. Provide mid-block pedestrian connections where blocks exceed 500 feet in length.

The intent of these standards is to prevent development of introverted neighborhoods, provide flexibility in circulation, and promote access for bicyclists and pedestrians.

- CI-I-7 **Roadway Abandonment and Public Access.** Do not abandon or render unusable any City-owned right-of-way, unless necessary for reasons of public safety or environmental conservation. Whenever public roadways are proposed to be abandoned, assess the value of maintaining public pedestrian and/or bicycle access, especially where coastal access can be maintained or improved. Abandonment of any public right-of-way that may negatively affect public access to the sea will require a coastal development permit. Any public right-of-way that cannot be maintained in a condition suitable for public use shall be offered to another public agency or private association that agrees to maintain the right-of-way for public use.

- CI-I-8 **Bicycle and Pedestrian Advisory Committee.** Create and solicit input from a bicycle and pedestrian advisory committees (BPAC) on planning and funding for transportation improvement projects.

- CI-I-16 **Multi-modal Level of Service (LOS) Performance Measures.** Develop performance measures for LOS for pedestrians, cyclists, and transit users, based on the criteria in this chapter and on “best practices.”
- Measures may be both quantitative (for example, sidewalk width) and qualitative (perceived safety and attractiveness.) Measures should use data that is readily available or can be readily collected, while providing an accurate assessment.*
- CI-I-17 **LOS for Pedestrians, Cyclists and Transit Users.** Strive to maintain LOS C or better for pedestrians, cyclists, and transit users on all roadways, and impose mitigation measures as needed to achieve multi-modal service objectives.
- CI-I-23 **Improvements for Existing Facilities.** Maintain and upgrade local streets, sidewalks, utilities, and other City infrastructure in a manner that prevents deterioration and corrects existing deficiencies.
- CI-G-10 ***Bicycle and Pedestrian Routes.** Establish trails, bike routes and pedestrian amenities connecting neighborhoods to major shopping and public facility destinations, and fill in gaps in the existing network.
- CI-G-11 **Walkable Neighborhoods.** Improve pedestrian amenities to create more walkable neighborhoods, especially in mixed-use activity centers and around schools.
- CI-G-12 **Recreational Access.** Provide recreational access to coastal resources and public open space in keeping with Pacifica’s natural environment, with links to regional trails and bicycle corridors.
- See Chapter 6 for additional Trail System Policies.*
- CI-G-13 **Mobility for All Users.** Create a safe and attractive walking environment accessible for all users, particularly persons with disabilities, seniors, and younger residents and visitors.
- CI-G-14 **Connections Across Highway 1.** Enhance under- and over-crossings of Highway 1 for pedestrians and bikes to improve accessibility and connect neighborhoods to each other and to the coast.
- CI-G-15 **Coastal Trail and North-South Bikeway.** Complete the Coastal Trail and the north-south bikeway from the north to sound end of the City parallel to Highway 1, providing clear, safe and efficient means to traverse coastal Pacifica.
- CI-I-27 **Pedestrian-Oriented Street Improvements.** Reduce curb-to-curb road widths and employ roadway design features, such as wider sidewalks, islands, bulb-outs, improved striping and signage, street trees, pedestrian amenities,

pedestrian countdown signals, and pedestrian refuges where feasible and appropriate. Priority locations for pedestrian-oriented design improvements include:

- Pedestrian Priority Zones, shown on Figure 5-1, which include mixed use and higher-intensity areas;
- Streets that are part of Pacifica’s proposed trail system improvements;
- Streets adjacent to schools; and
- Locations where pedestrian-automobile collisions have occurred.

CI-I-28 **Palmetto Avenue Streetscape Plan.** Complete and implement the Palmetto Avenue Streetscape Plan to widen sidewalks, provide bike lanes, landscaping, and make other improvements that will upgrade the appearance of the avenue and make it more attractive to pedestrians.

CI-I-29 **Additional Pedestrian Facilities on Large Sites.** Enhance the pedestrian network with an interconnected system of walkways, continuous sidewalks on both sides of the street, and pedestrian crossings as part of higher-intensity redevelopment of large sites.

CI-I-30 **Safe Routes to Schools.** Partner with Pacifica School District to develop and implement a Safe Routes to Schools program.

CI-I-31 **Universal Design.** Require all pedestrian facilities to be ADA compliant and accessible to persons with disabilities.

CI-I-32 **Direct North-South Bikeway.** Complete the City’s direct north-south bicycle route to optimize safety and comfort. Improvements should include the following, from north to south:

- Class II bike lanes along Westline Drive north of Palmetto Avenue;
- A continuous Class II bikeway on Palmetto Avenue between Westline Drive and the San Francisco RV Park;
- A Class II bikeway on Clarendon Road, Lakeside Road, Francisco Boulevard, and Bradford Way, improving the bikeway between West Sharp Park and Mori Point;
- A reconstructed Class I path between Mori Point and Reina del Mar Avenue that is wider and more sheltered from the highway than the current trail;
- A Class II bikeway on SR 1 between Reina del Mar Avenue and San Pedro Creek, providing a direct travel route along SR 1 through southern Pacifica with well-marked and buffered lanes; and
- A Class III bikeway along SR 1 between San Pedro Creek and the Devil’s Slide bypass.

- CI-I-33 **Parallel North-South Bikeway West of SR 1.** Create and upgrade bicycle facilities that provide an alternative for north-south bicycle travel west of Highway 1. Improvements should include the following, from north to south:
- A Class I trail in a public access easement along the west side of the RV park as part of any development or change in use, ensuring public access along the coast (a previous path was lost to erosion);
 - A Class III route along Beach Boulevard between Paloma Avenue and Clarendon Road;
 - A Class III bikeway along Dondee Drive in the Rockaway Beach district, connecting existing Class I trails along Calera Creek to the north and Rockaway Headlands to the south;
 - A Class I trail parallel to and west of SR 1 from San Pedro Creek to the Devil's Slide bypass.
- CI-I-34 **Parallel North-South Bikeway East of SR 1.** Create and upgrade bicycle facilities for north-south bicycle travel on the east side of SR 1. Improvements should include the following, from north to south:
- A new Class II facility along Oceana Boulevard from Manor Drive to Clarendon Road;
 - A new Class II route on Fassler Avenue, Roberts Road, and Crespi Drive, providing a connection between Rockaway Beach and Linda Mar on the east side of SR 1;
 - An upgraded and extended path on the east side of SR 1 between Crespi Drive and Linda Mar Boulevard meeting the Class I facility on the San Pedro Terrace right-of-way.
- CI-I-35 **Neighborhood Bikeways.** Develop a system of bikeways connecting all neighborhoods to the City's north-south pathway, including Class II routes along Monterey Road and Hickey Boulevard, Rosita Road, Oddstad and Terra Nova Boulevards, and Fassler Avenue and Class III routes as shown on **Figure 5-3** of the proposed General Plan..
- CI-I-36 **Class II Facility Design.** Wherever Class II facilities are designated, make bike lanes at least 5 feet wide along local streets and at least 6 feet wide on arterials or highways. Separate Class II facilities from vehicle traffic with a solid stripe and mark them with bike lane symbols.
- A one-foot buffer strip between the bike lane and vehicle traffic should be provided wherever feasible to increase safety. Raised or two-way cycle tracks or other forms of bikeway should also be considered where appropriate.*
- CI-I-37 **Class III Facility Design** Demarcate Class III bicycle facilities by painting “sharrows” on streets, where appropriate.

- CI-I-38 **Signage Program.** Develop and implement a signage program for the bikeway system in order to::
- Alert motorists to the presence of cyclists on the road;
 - Alert cyclists to route turns junctions, and changes in the class of bicycle facility; and
 - Provide a clear identity for each bicycle route, and periodically provides distance to key destinations.
- CI-I-39 **Obstructions.** Align designated bikeways to avoid obstructions such as light posts, signage, trees, and curb cuts, and relocate or modify these obstructions as necessary.
- CI-I-40 **Priorities for Improvements.** Make designated bicycle routes a priority for pavement repair, as needed, and for regular maintenance to remove sand, gravel or other debris.
- CI-I-41 **Improved Bikeway Visibility.** Use strategies to improve bikeway visibility, including but not limited to::
- Using visual cues such as brightly-colored paint on bike lanes or a one-foot painted buffer strip;
 - Upgrading a Class III facility to Class II and providing additional signage;
 - Removing select on-street parking, if feasible.
- CI-I-42 **Bicycle Lockers at Park-and-Ride Lots.** Replace existing bicycle lockers at the public parking lot on Crespi Drive, and add lockers at the park-and-ride lot on Linda Mar Boulevard..
- CI-I-43 **Bicycle Parking at Recreation and Shopping Areas.** Provide bicycle parking at the following locations:
- Park and beach access at the northern end of Esplanade Drive (Lands End Apartments);
 - Manor Plaza shopping area;
 - Pedro Point Headlands/Devil's Slide.
- CI-I-44 **Bicycle Parking Requirements for New Development.** Continue to require the provision of bicycle parking as part of new non-residential development according to the standards in the Pacifica zoning code..
- CI-I-45 **Bicycle Parking at Schools and Workplaces.** Work with the school districts and employers to provide adequate bicycle parking at all schools and workplaces with 30 or more employees.

- CI-I-46 **Bicycle Education.** Distribute appropriate informational material to all schools in Pacifica in conjunction with bicycle education campaigns..
- CI-I-47 **Funding for Bicycle Facilities.** Designate a portion of the City's annual street construction and improvement budget to fund bikeway design and construction, and continue to pursue potential funding from MTC and San Mateo County, as well as appropriate Federal and State programs..
- CI-G-16 **Improved Public Transit.** Advocate for SamTrans and other public transit providers to improve transit service and facilities, to enable trips to be made without use of a car. In particular, advocate for the expansion of public transit services and facilities to improve public access and recreation opportunities along the coast.
- CI-G-17 **Transportation Demand Management (TDM).** Support TDM strategies to reduce congestion and single-occupant vehicle travel.
- CI-I-49 **Service Optimization.** Continue coordination efforts with transit agencies (i.e., SamTrans) to maintain transit service that is safe and efficient, provides convenient connections to high-use activity areas and key destinations outside the City, and responds to the needs of all passengers, including seniors, youth, and persons with disabilities.
- CI-I-50 **Improved Transit Stops.** Work with transit agencies to improve transit stops and access to facilities.
- CI-I-51 **Park-and-Ride Locations and Attributes.** Work with Samtrans to identify changes that would improve the convenience and functionality of Park-and-Ride facilities, and result in increased ridership.
- CI-I-52 **Transit-Oriented Development.** Work with Samtrans to facilitate transit-oriented development on all or part of the Linda Mar Boulevard Park-and-Ride lot.
- CI-I-53 **Promotion of Transit Use.** Lead an initiative to promote transit use and reduce reliance on the private automobile in order to reduce congestion, reduce greenhouse gas emissions, and improve quality of life.
- CI-I-54 **Transportation Demand Management Programs.** Establish a Transportation Demand Management (TDM) program for City employees that may include transit passes or subsidies, preferential carpool parking, car share programs, bicycle lockers, and other incentives to employees choosing transportation modes other than driving.
- CI-I-55 **Local Transportation Services.** Support expanded funding for Local Transportation Services tailored to the schedules and destinations of students, seniors, and recreational visitors.

Mitigation Measures

None required.