City of Pacifica

Bicycle & Pedestrian Master Plan

February 2020

Prepared by: alta PLANNING + DESIGN

ACKNOWLEDGMENTS

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CHAPTER 1: EXECUTIVE SUMMARY

Vision Statement: *Pacifica is a city where walking and bicycling is encouraged as safe and practical means of transportation that provide access to schools, parks, shopping, trails, beaches, bluffs, and other community destinations together on both sides of Highway 1.*

The City of Pacifica Bicycle and Pedestrian Master Plan Update 2020 (Plan) establishes a long-term vision for improving walking and bicycling in Pacifica through policy, program, and project recommendations. Through the implementation of this Plan, the City can become a community where walking and bicycling is encouraged and the health of its residents and environmental sustainability is prioritized. This Executive Summary provides an overview of the challenges and opportunities currently experienced by bicyclists and pedestrians in the City as well as a summary of the high-priority projects recommended in this Plan.

CHALLENGES AND NEEDS

- Pacifica has invested in an 11-mile bicycle network that includes almost 5 miles of car-free shared-use paths, but the reach of this network is limited.
- Highway 1 and the varied terrain across the city limits connectivity for all travel across Pacifica.
- Travel along and crossings of Highway 1 are significant barriers for people walking and bicycling.
- The lack of comfortable bikeways along major arterials and gaps at barriers leave people who want to bike disconnected from the many destinations within Pacifica.
- These factors likely contribute to the small percentage of people who bicycle to work and other destinations. Over 80% of residents drive to work (ACS 2017).
- There are streets within Pacifica that do not have sidewalks, which force pedestrians to walk in the road and navigate around parked cars.
- Better access to the coast and the many trailheads throughout Pacifica is a high priority for the public.

OPPORTUNITIES

- Many neighborhood streets within Pacifica are good candidates for bicycle boulevards, with slower speeds and lower traffic volumes.
- There are many low-cost bicycle and pedestrian recommendations that Pacifica can begin implementing without grant funding.
- The bicycle network build-out and implementation of pedestrian facilities can transform Pacifica into a more connected and accessible city.

Underutilized roadway space can be used to construct bicycle facilities to facilitate safe, more comfortable travel.

ROADMAP FOR SUCCESS

PLAN GOALS

SAFETY

Walking and bicycling will become safer modes of transportation through infrastructure installation and education of all road users.

CONNECTIVITY

Pacifica will build upon its existing active transportation networks and become a more connected city linking neighborhoods together on each side of Highway 1.

SAFE ROUTES TO SCHOOL

Pacifica will prioritize bicycle and pedestrian infrastructure improvements around schools to make it safer for students and families to walk and bike to school.

CREATE A CULTURE OF WALKING AND BICYCLING

Through infrastructure and deliberate encouragement activities (open street events, Bike to Work Day/Month activities, Safe Routes to Schools programming, etc.), strive to create a culture of walking and biking within Pacifica.

PLAN RECOMMENDATIONS

This Plan recommends 34.5 miles of new and upgraded miles of on-street bicycle facilities and off-street shared-use paths and pedestrian improvements at 49 locations. Recognizing that the City has limited resources, the Plan prioritizes fourteen (14) bicycle projects and sixteen (16) locations for pedestrian improvements.

Projects were prioritized based on the following criteria:

- Enhancements to safety
- Connectivity
- Accessibility
- Feasibility

Based on the prioritization, projects were sorted into four implementation categories:

- Short term improvement – High priority projects and easy to implement projects for short term development.
- Long term improvement – Projects for further study and evaluation. Seek grant funding to advance these projects.
- Opportunity improvement – Lower priority projects short term implementation that may become an opportunity if funding or partnership occurs.
- Low priority – Low priority, challenging projects that may be pursued long term, but are not a priority at this time.

The top projects for both pedestrians and bicyclists are listed below in Tables ES1 and ES-2. These projects are shown in Figure ES-1.

The Calera Creek Trail.

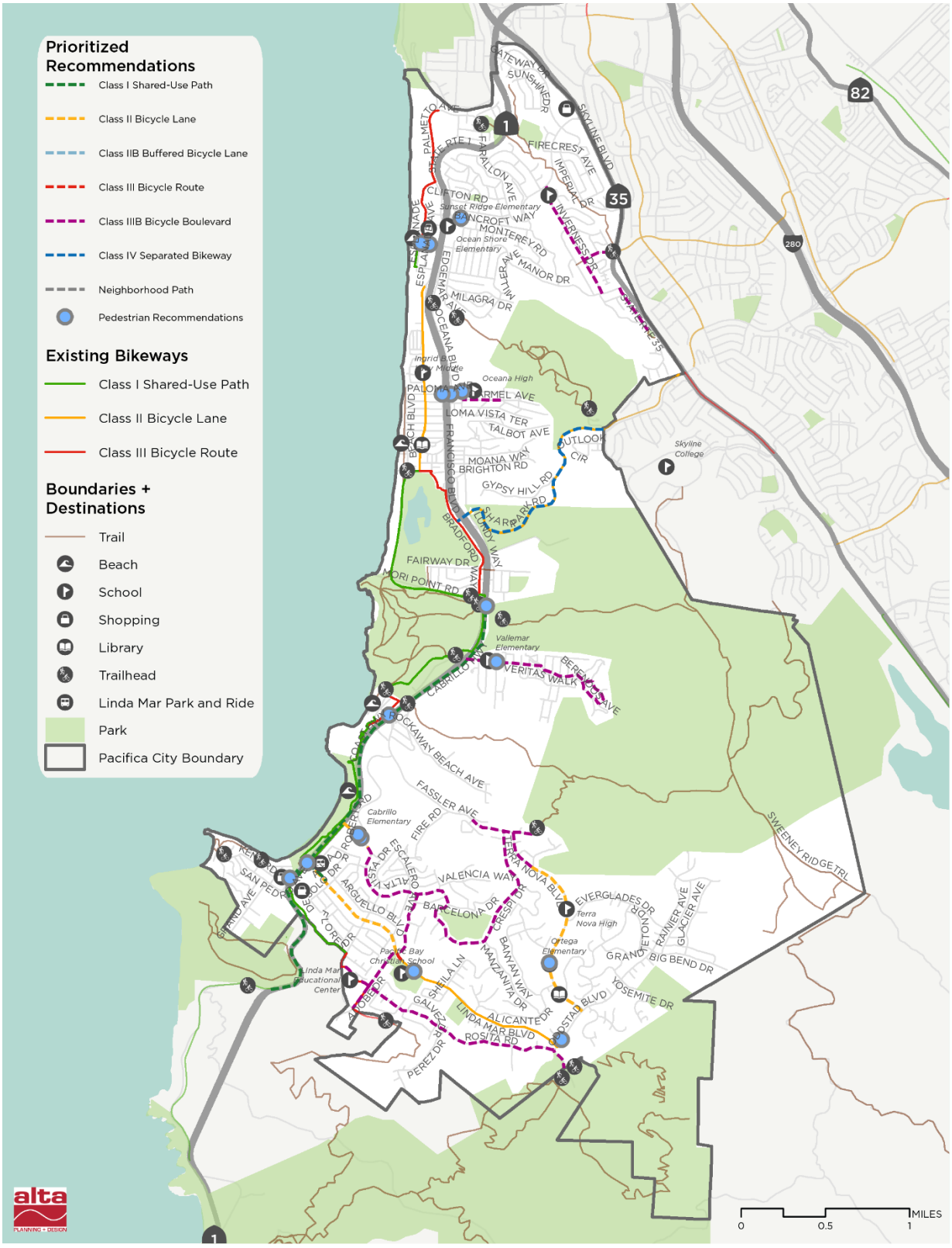
TABLE ES-1: PRIORITY BICYCLE PROJECTS

CORRIDOR	START	END	IMPLEMENTATION CATEGORY
Crespi Drive Bicycle Boulevard Project	-	-	Short Term Improvement
Highway 1 Shared-use path	Mori Point Rd	Devil's Slide	Long Term Improvement
Inverness Drive Bicycle Boulevard Project	-	-	Short Term Improvement
Reina Del Mar Bicycle Boulevard Project	-	-	Short Term Improvement
Carmel/Mirador Bicycle Boulevard Project	-	-	Opportunity Project
Crespi Drive Bike Lanes	Highway 1	Shopping center driveway	Opportunity Project
Fassler/Terra Nova Bicycle Boulevard Project	-	-	Opportunity Project
Linda Mar Boulevard Bike Lanes	Shopping Center Driveway	Adobe Dr	Long Term Project
Linda Mar Park and Ride Shared-use Path	-	-	Long Term Project
Rosita Road Bicycle Boulevard Project	-	-	Opportunity Project
Sharp Park Road Class IV	City limit	Bradford Way	Opportunity Project
Terra Nova Boulevard Bike Lanes	Oddstad Blvd	Mason Dr	Opportunity Project
Adobe/Seville Bicycle Boulevard Project	-	-	Opportunity Project
San Pedro Avenue Trail	Linda Mar Blvd/Highway 1	Mid-block crossing	Long Term Project

TABLE ES-2: PRIORITY PEDESTRIAN PROJECTS

LOCATION	IMPLEMENTATION CATEGORY
Rockaway Beach/Fassler/Highway 1	Long Term Project
Linda Mar/Highway 1	Long Term Project
Crespi Drive at Cabrillo School	Opportunity Project
Oddstad/Toledo	Opportunity Project
Ortega School SR2S	Opportunity Project
Crespi/Roberts	Opportunity Project
Linda Mar Boulevard	Long Term Project
Monterey Road Mid-block Crossing	Opportunity Project
Manor Drive/Manor Plaza	Opportunity Project
Manor/Esplanade	Opportunity Project
Paloma/Francisco - Oceana High School	Opportunity Project
Paloma/Oceana - Oceana High School	Opportunity Project
Paloma/Mirador - Oceana High School	Opportunity Project
Mori Ridge/Highway 1	Opportunity Project
Reina Del Mar/Reichling	Opportunity Project
San Pedro Avenue Mid-block crossing	Long Term Project

FIGURE ES-1: PRIORITY BICYCLE AND PEDESTRIAN PROJECTS



CHAPTER 2: VISION AND GOALS

What are the overarching objectives the City of Pacifica should strive to achieve?

VISION STATEMENT

Pacifica is a city where walking and bicycling is encouraged as safe and practical means of transportation that provide access to schools, parks, shopping, trails, beaches, bluffs, and other community destinations together on both sides of Highway 1.

GOALS

SAFETY

Walking and bicycling will become safer modes of transportation through infrastructure installation and education of all road users.

CONNECTIVITY

Pacifica will build upon its existing active transportation networks and become a more connected city linking neighborhoods together on each side of Highway 1.

SAFE ROUTES TO SCHOOL

Pacifica will prioritize bicycle and pedestrian infrastructure improvements around schools to make it safer for students and families to walk and bike to school.

CREATING A CULTURE OF WALKING AND BICYCLING

Through infrastructure and deliberate encouragement activities (open street events, Bike to Work Day/Month activities, Safe Routes to Schools programming, etc.) strive to create a culture of walking and biking within Pacifica.

The Coastal Trail south of Clarendon Road.

CHAPTER 3: PACIFICA TODAY AND NEEDS ANALYSIS

What is it like to walk and bike in Pacifica today? What are the challenges and opportunities?

PACIFICA TODAY

This Bicycle and Pedestrian Master Plan serves as an update to Pacifica's previous Bicycle Plan, adopted in 2000. The update not only provides additional bicycle infrastructure and policy recommendations but also incorporates the pedestrian mode as a critical component of Pacifica's overall transportation network.

As a city, Pacifica has undergone many changes over the last 20 years. This plan provides additional infrastructure and policy recommendations based on a thorough Existing Conditions Analysis and robust public outreach and engagement process.

COMMUNITY CONTEXT

Pacifica is a city of about 39,000 people, located along the California coast in northern San Mateo County, tightly nestled between the mountains and coast. Pacifica is divided into neighborhoods based on the confines of the natural environmental: Edgemar, Sharp Park, Fairway Park, Vallemar, Rockaway, Pedro Point, and Linda Mar. Each community has a unique character and individual transportation needs and desires.

While each of the neighborhoods varies in size and design, they all have residential components with pockets of commercial centers. Another essential defining quality of Pacifica and Pacifica residents is their access to and love of the outdoors. With beaches, bluffs, and trails accessible in many parts of the City, walking and biking to these destinations is vital for Pacifica's residents and visitors.

DEMOGRAPHIC CONTEXT

Pacifica's 14,000 households tend to be older than the state average; Pacifica's population has more middle- and older-age adults (ages 40-75) and less young adults and children. Compared to the rest of San Mateo County, Pacifica shares the deficit of younger residents, but the County's overall older adult population is more in-line with the California-wide average. Most Pacifica households occupy single-family residences. (U.S. Census)

In terms of population density, Pacifica's northern neighborhoods, Manor and Sharp Park, are the densest areas of the City. In fact, the northern most census tracts average over 8,000 people per square mile. Inversely, the four tracts that include Fairway Park, Vallemar, Linda Mar and Pedro Point, each have 2,200 people per square mile or less. These neighborhoods, especially Linda Mar, were developed in a more sprawl-like development pattern.

GEOGRAPHIC CONTEXT

The mountains and coast create a unique environment where there is only one continuous north-south corridor throughout the entire city: Highway 1. North of Fairway Park, Highway 1 is a conventional freeway (grade-separate with limited access via on- and off-ramps) and is a highway (at-grade, higher speed roadway that is part of the California highway network) through and south of the neighborhood.

The terrain creates a beautiful scenic landscape for the numerous trails and hiking opportunities. However, steep terrain changes in many neighborhood areas limits opportunities for walking and bicycling.

Many destinations, such as schools and parks, are typically within a close enough distance to be walkable or bikeable for a majority of residents, but infrastructure limitations (both physical and perceived) and terrain can both adversely affect someone's propensity to make a trip via an active mode. The limited opportunities for more north-south connectors places extra importance on the Highway 1 Corridor. Highway 1 is the only corridor that links the neighborhoods together but is also a barrier for pedestrians and bicyclists to cross to reach destinations on the other side because of high vehicle speeds, limited, uncomfortable crossings, and limited access to the corridor.

TRANSPORTATION OVERVIEW

Driving is the dominant mode of transportation within Pacifica (72% of workers drive alone to work and 11% carpool), but walking and bicycling play a huge recreational role and has the potential to grow for utilitarian trip purposes as well. However, to realize this potential, new infrastructure and policies have to be created and implemented to foster new active trips. The following sections describe the existing transportation environment within Pacifica.

EXISTING BICYCLE AND PEDESTRIAN NETWORKS

Within Pacifica, there are only 11-miles of bicycle facilities. Existing facilities are broken into two primary categories: on-street bikeways and trails. The Coastal Trail is the centerpiece of Pacifica's trail network and accounts for most of the system's mileage. On-street facilities are currently composed of Class III bicycle routes, where drivers and bicyclists share the road, and Class II bicycle lanes. About half a mile of Palmetto Avenue was redesigned with green painted bicycle lanes and pedestrian improvements such as curb extensions, lighting, and marked crosswalks. There are currently 4.7 miles of trails, 2.6 miles of Class III facilities, and 3.6 miles of bicycle lanes within Pacifica. Figure 1 shows the current bicycle network within Pacifica.

The Coastal Trail and Palmetto Avenue are the primary active transportation north-south spines of Pacifica's active transportation network (both are west of Highway 1). Highway 1 and the side path (about 10-feet wide), where present, also provides north-south connectivity, but in a higher-stress environment. The street grid, limited by terrain, prevents any continuous north-south travel east of Highway 1. Bicycle facilities are very sparse east of the highway. While overall connectivity (for all modes) is limited by the street grid, combined with the lack of bicycle facilities, the attractiveness of bicycling is significantly dampened for many current and potential users. The disconnected street grid is especially detrimental for pedestrian trips by limiting direct, efficient routes.

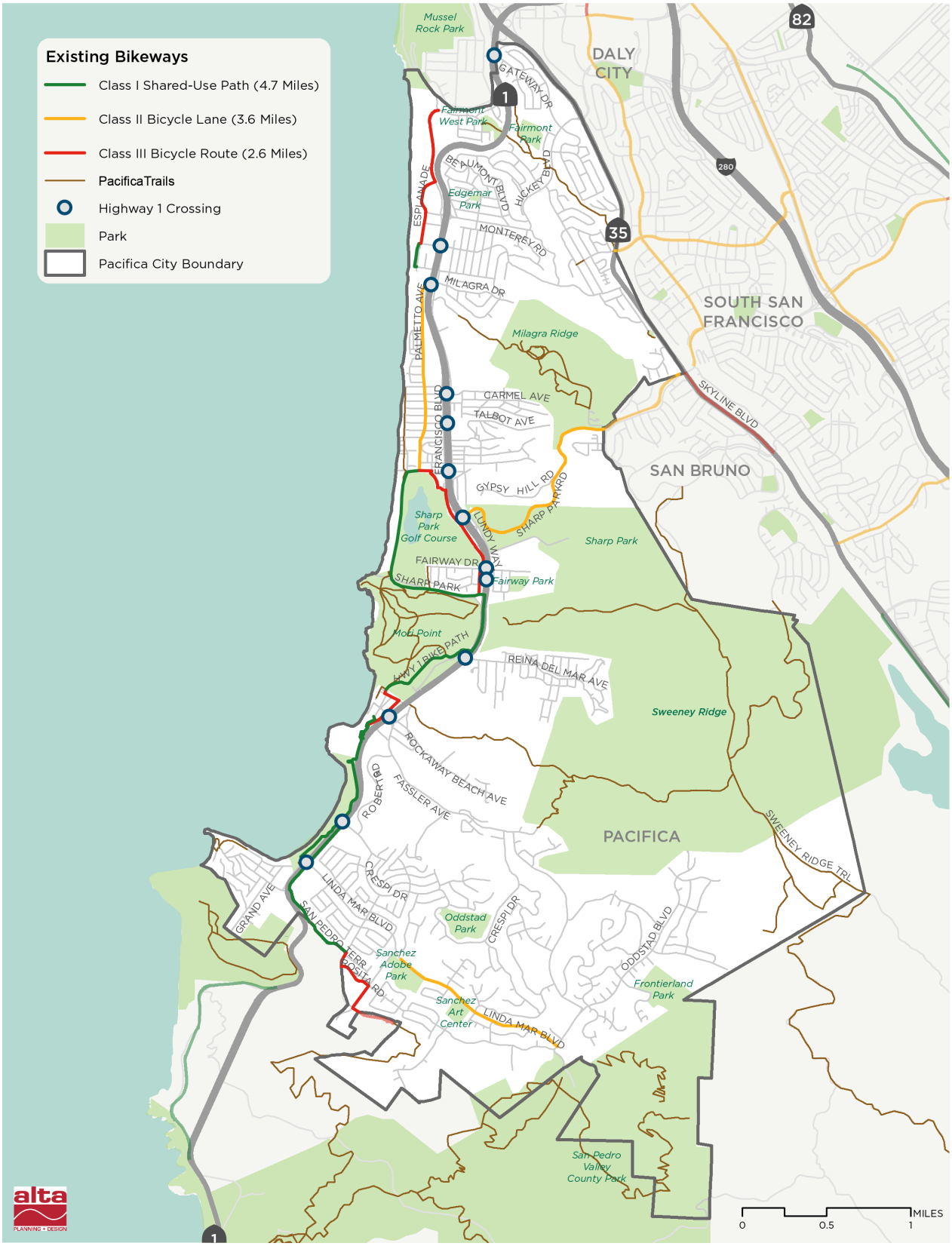
The mountainous terrain between neighborhoods creates connectivity bottlenecks, funneling trips to the few available connected corridors, primarily Highway 1.

Table 1 below breaks down the existing bicycle network within Pacifica.

TABLE 1: EXISTING BIKEWAY MILEAGE

Bikeway Class	Miles
Class I Shared-use Path	4.7 miles
Class II Bicycle Lane	3.6 miles
Class III Bicycle Route	2.6 miles

FIGURE 1: EXISTING BIKEWAYS



BIKEWAY CLASSIFICATIONS

CLASS I SHARED-USE PATH

Class I shared-use paths are paved trails wholly separated from the street. They allow two-way travel by people bicycling and walking, and are often considered the most comfortable facilities for children and inexperienced riders as there are few potential conflicts between people bicycling and people driving.

There are currently 4.7 miles of Class I paths within Pacifica. Example paths include the Coastal Trail and the Esplanade trail.

The Coastal Trail near Clarendon Road.

CLASS II BICYCLE LANE

Class II bicycle lanes are striped preferential lanes on the roadway for one-way bicycle travel. Some bicycle lanes include a striped buffer on one or both sides to increase separation from the traffic lane or from parked cars, where people may open doors into the bicycle lane.

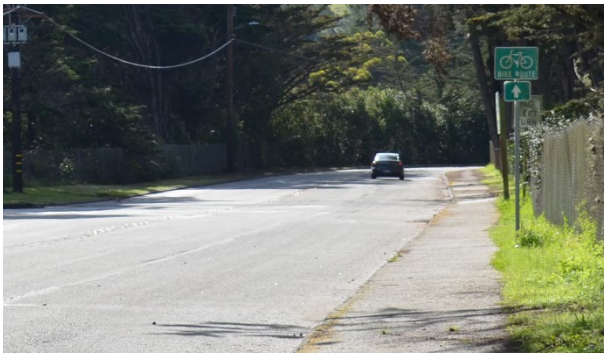
There are currently 3.6 miles of bike lanes in Pacifica. There are currently no buffered bike lanes. Example bike lanes include Palmetto Avenue and Linda Mar Boulevard east of Peralta Road.

Palmetto Avenue

CLASS III BICYCLE ROUTE

Class III bicycle routes are signed routes where people bicycling share a travel lane with people driving. Because they are shared facilities, bicycle routes are only appropriate on quiet, low-speed streets with relatively low traffic volumes. Some Class III bicycle routes include shared lane markings or "sharrows" that recommend proper bicycle positioning in the center of the travel lane and alert drivers that bicyclists may be present. Others include more robust traffic calming features to promote bicyclist comfort and are known as "bicycle boulevards." Bicycle boulevard treatments vary and should be selected based on local resident/ stakeholder input and planner/engineer best judgment.

There are currently 2.6 miles of bicycle routes within Pacifica and no bicycle boulevards. Example bike routes include segments of Esplanade Avenue and Francisco Boulevard.

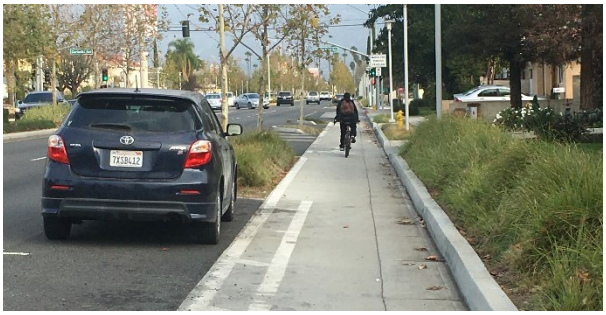


Francisco Boulevard

CLASS IV SEPARATED BIKEWAY

Class IV separated bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollards, or vehicle parking aisle. They can allow for one- or two-way travel on one or both sides of the roadway.

There are currently no Class IV bikeways in Pacifica.



An example separated bikeway with parking and landscaping.

PEDESTRIAN FACILITIES

While detailed sidewalk availability data was not available for this Plan, the lack of available sidewalks (as mentioned throughout public engagement process) can be a detriment to generating pedestrian trips, especially on larger, higher speed roadways.

A description of pedestrian facilities is provided in Chapter 5 as part of the toolkit of pedestrian-improvements.

CHALLENGES AND BARRIERS

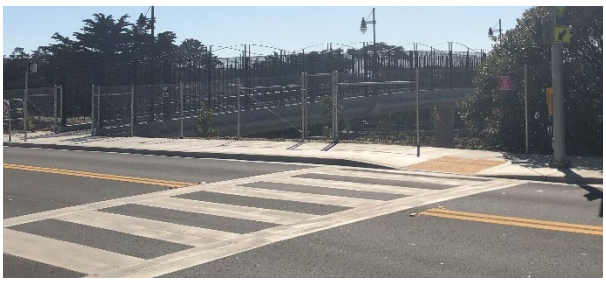
The current transportation network within Pacifica has many challenges and barriers that can influence active transportation decision making, discouraging people from making trips or altering routes to avoid the challenge or barrier.

HIGHWAY 1 CROSSINGS

Highway 1 plays a dominant role in Pacifica's transportation network and how residents navigate through the City. As the most direct and efficient path of travel for vehicles traveling to, from, and within the City, Highway 1 is a significant barrier to bicycle and pedestrian activity and poses a challenge to many bicyclists and pedestrians.

Within city limits, there are thirteen crossings of Highway 1. Each crossing type has a unique set of challenges associated with it. There are five at-grade crossings (ground level with intersections), five above-grade (overpasses) crossings, and 3 below-grade crossings (underpasses and tunnels). With Pacifica, Highway 1 is a conventional freeway (grade-separated with freeway ramps) from the northern city limit to north of Westport Drive and a highway with intersections south through the city limit. Non-at-grade crossings can have access issues, at-grade crossings expose users to more conflict points, and underpasses are typically dark and uninviting to pedestrians and bicyclists. Twelve of these intersections are all-way controlled. The Westport Drive intersection is stop-controlled at the minor approaches; Highway 1 traffic does not stop. In addition to the crossings themselves, these locations are not evenly spread across the City. On average, crossings are nearly a half-a-mile apart (0.41 miles), but the distance between crossings can range between 1.5 miles and 0.1 miles apart. Figure 2 shows the location and type of these crossings.

The five at-grade highway crossings are in the southern half of the City and constitute all five crossings including and south of Westport Drive. In the northern half of the City, when Highway 1 is a conventional freeway, is where the remaining eight crossings are. This total includes the tunnel at Fairway Drive that also serves the golf course.



The recently constructed pedestrian overpass near the Eureka Square Shopping Center.

The Manor Drive overcrossing.

The Clarendon Road underpass.

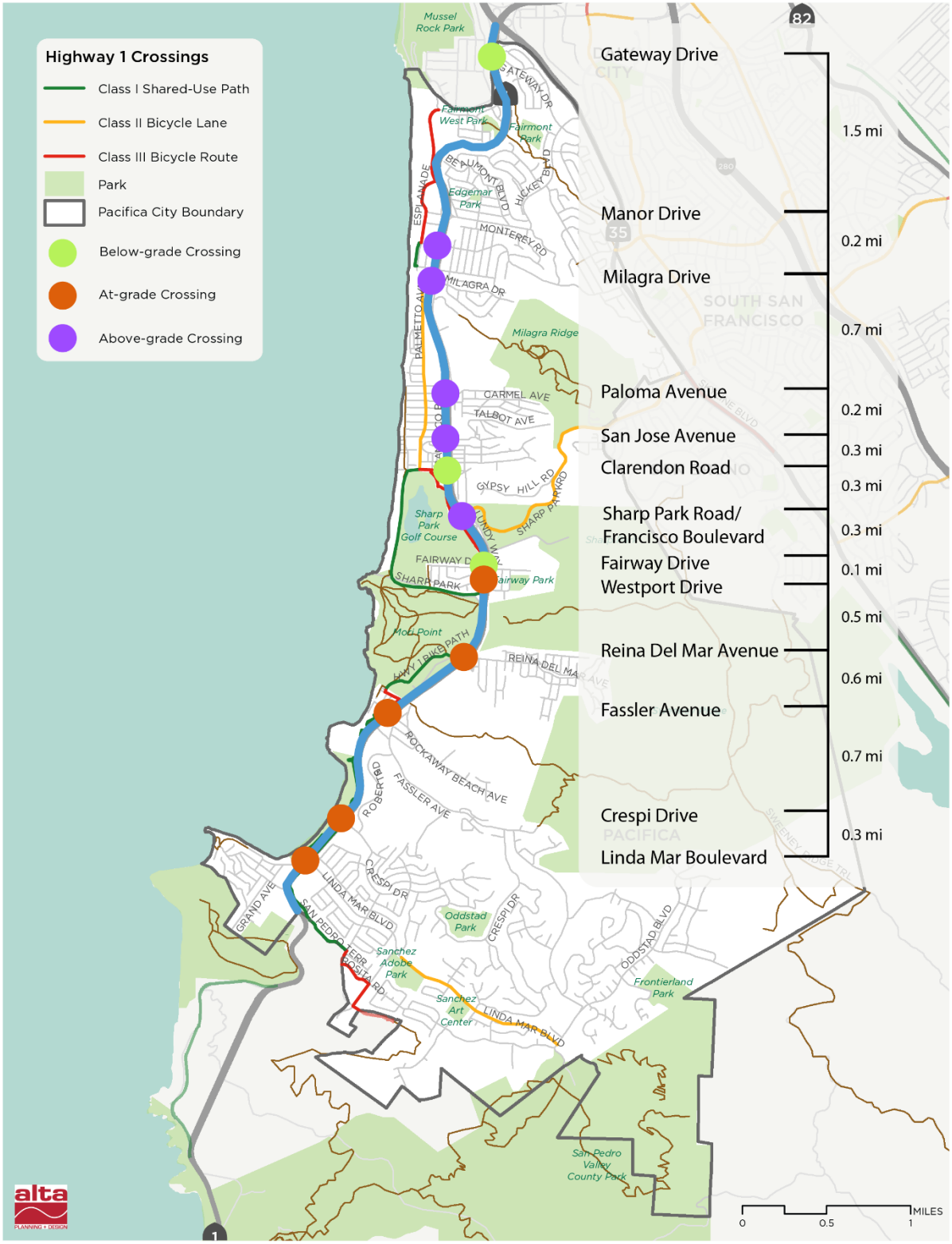
The Reina Del Mar intersection.

These crossings are essential pieces of Pacifica's transportation network because of users' reliance on Highway 1 for inter-neighborhood travel and travel between the coastal and inland parts of the City. Some neighborhoods are divided by Highway 1.

SIDEWALKS

Some streets within Pacifica do not have sidewalks. While many of these areas are within residential neighborhoods, there are also arterial and collector streets like segments of Fassler Avenue, that also do not have sidewalks. Missing sidewalks force pedestrians to walk in the street to continue their journey. In many of the residential locations, driveways and vegetation line the edges of the streets. Through the public outreach process, the Plan team heard that drivers also parallel park on the street or hang the car out beyond the end of their driveway; further limiting where pedestrians can walk.

FIGURE 2: HIGHWAY 1 CROSSINGS



PUBLIC TRANSIT

SamTrans provides public transit bus service in Pacifica. The Linda Mar Park-and-Ride is the primary transit hub within Pacifica and is served by six bus routes. Three of these routes provide service to BART stations. These BART routes also link the northern and southern parts of the City via Highway 1. The Linda Mar neighborhood also has on-demand FLX Pacifica service. This route encircles the neighborhood generally traveling along Linda Mar Boulevard, Terra Nova Boulevard, and Crespi Drive. Coastside route 17 also serves Pacifica via the Linda Mar Park-and-Ride. No route that currently serves Pacifica stops at a Caltrain station; these users have to transfer. There are no rapid or express transit routes that currently serve Pacifica.

CURRENT POLICIES AND PROGRAMS

COMPLETE STREETS

The policies set forth in Pacifica's General Plan (Draft, 2014) layout the policies for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. Both new roads and the redesign of existing roads should make reasonable accommodations for both pedestrians and bicyclists.

Stated goals from the General Plan include:

- Create a comprehensive circulation system that creates a continuous network that accommodates all modes
- Make safety a primary objective

Many of these Complete Streets Policies are codified in both the draft General Plan and the Coastal Land Use Plan.

DEVELOPMENT POLICIES

Concurrent with the proposed guidance in the General Plan, Pacifica currently requires new developments that affect public right-of-way to incorporate complete streets concepts at each stage of the development process. Right-of-way creation and modifications are reviewed against Metropolitan Transportation Commission (MTC) Complete Street directives. The General Plan also outlines policies for additional pedestrian-oriented amenities in mixed-use areas.

SUMMARY

Pacifica has a complicated transportation landscape; the current street network has limited connectivity within the City due to the varied hilly terrain, and the City is bisected by Highway 1. In addition to on-street transportation, Pacifica is home to an extensive network of trails within the many privately-owned and public open spaces throughout the City. The trails and the many destinations within Pacifica are not currently well-served by active transportation, especially by bicycle. The limited on-street street network does not encourage active trips. Despite these limiting factors, there are existing and many potential opportunities for active transportation in Pacifica. The following section describes how people currently travel within the City and detail the City's activity generators.

DEMAND ANALYSIS

This section discusses the major destinations and activity generators within Pacifica. These are destinations that residents, visitors, and tourists may want to access using active transportation.

MAJOR DESTINATIONS

Along the coast, the Coastal Trail, bluffs, pier, and beaches are destinations for both locals and visitors alike. Pacifica has a vast network of over 40 miles of trails that run through the many parks and open space areas including Mori Point, Sweeny Ridge, and Devils Slide to the south. In addition to the larger park and recreational areas, city parks are also important destinations for Pacifica residents. These parks are spread across the City and include:

Frontierland Park, San Perdo Valley Park, Fairmont Park, Oddstad Park, and Edgemar Park. Major destinations are shown in Figure 4 on page 23.

SCHOOLS, LIBRARIES, AND COMMUNITY CENTERS

In addition to outdoors destinations, schools, libraries, and community centers are also essential community destinations. Improving pedestrian and bicycle access to these destinations is very important to encourage more families, and all residents, to use active modes to reach these local destinations. There are two libraries in Pacifica, one in the Eastern Linda Mar neighborhood and one in the Sharp Park neighborhood. The Pacifica Community Center is located off of Crespi Drive within Linda Mar.

SAFE ROUTES TO SCHOOLS

The Pacifica School District is a district of choice, allowing families to choose which school they want their child to attend, regardless of proximity to the school. Oceana High School and Terra Nova High School are part of the Jefferson Union High School District and are also open enrollment schools. Encouraging more families to use walking and bicycling to access schools can be more difficult in school districts without enrollment areas because a more substantial proportion of families may live beyond reasonable walking and bicycle ranges. However, despite the planning challenges of open enrollment districts, there are still many ways that these schools can work towards increasing both active (walking and biking) and shared (carpool and transit) access to school.

It is essential to have both infrastructure and programming aspects to a safe routes to school program. While there is a more extensive Safe Routes to School countywide program led by C/CAG, Pacifica compliments that program with additional programming. All 3rd and 4th-grade students receive bicycle education through YBikes; the program teaches both bicycle skills and bicycle safety. The BikeMobile also visits Pacifica schools occasionally, providing free bike repair and lessons to students and their families. Schools throughout the district also participate in Lower Your Carbon Footprint days, where classes compete to see who can reduce the number of cars accessing campus.

The Safe Routes to School Program also helps fund small infrastructure improvements around schools. Both physical infrastructure and families' perception of the infrastructure plays a role in transportation decision making. Ensuring that students and families feel safe and comfortable removes a major impediment for those who live close enough to walk or bike or those who chose to park-and-walk (parking a couple of blocks from campus and walking in to avoid drop-off/pick-up congestion). When discussing improvements around schools, it is crucial to keep in mind the higher baselines for comfort and stress that students have and the selection of infrastructure needs to accommodate these users.

A family going home from Cabrillo School, walking along Crespi Drive.

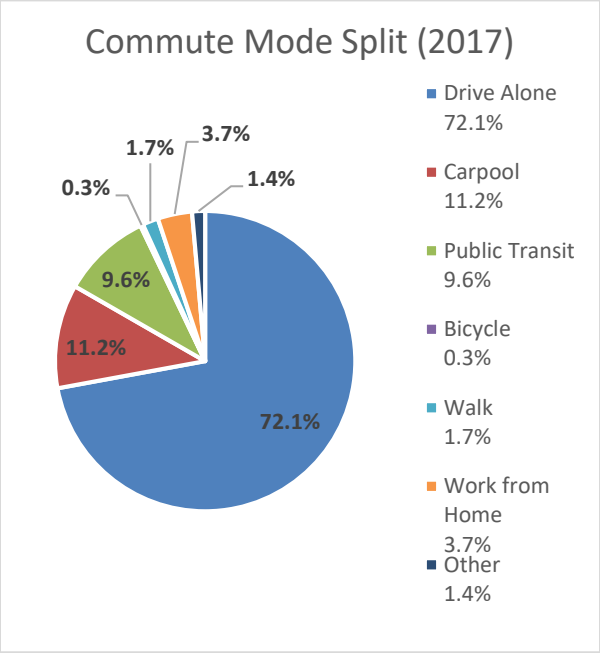
The existing mid-block crossing on Monterey Road near Ocean Shore School.

COMMUTE PATTERNS & EMPLOYMENT DENSITY

COMMUTE INFORMATION

19,000 Pacifica residents have jobs. 83 percent of these workers commute by car (ACS, 2017 – Five-year estimates). Only 2% of workers use active transportation to get to work. About 10% use public transit to reach their workplace (ACS, 2017 – Five-year estimates). Most workers, over 93%, commute outside of the City, putting increased stress both on Highway 1 and roads that feed into it. Only 7% of workers both live and work in Pacifica. Table 2, below, displays the top ten workplace destination cities of Pacifica residents.

FIGURE 3: COMMUTE MODE SPLIT



Source: American Community Survey Five Estimates, 2017

TABLE 2: WORKPLACE DESTINATIONS (2017)

CITY	PERCENT OF WORKERS
San Francisco	35.5%
South San Francisco	6.9%
Pacifica	6.9%
San Mateo	3.7%
Burlingame	3.7%
Daly City	3.2%
San Jose	2.9%
Oakland	2.4%
Redwood City	2.4%
San Bruno	1.9%

Source: On The Map – U.S. Census Bureau

Inversely, there around 4,200 jobs in Pacifica. These jobs pull in workers from across the region. Table 3 displays the top ten origin cities of people who commute into Pacifica.

A SamTrans bus shelter on Palmetto Avenue near Manor Plaza Shopping Center.

TABLE 3: WORKER ORIGINS (2017)

CITY	PERCENT OF WORKERS
Pacifica	31.5%
San Francisco	16.2%
Daly City	8.2%
South San Francisco	4.9%
San Mateo	3.2%
San Bruno	3.1%
San Jose	2.2%
Oakland	1.5%
Hayward	1.1%
Redwood City	1.0%

Source: On The Map – U.S. Census Bureau

Just shy of one-third of Pacifica's jobs are filled by residents. The majority of other workers come from across the Peninsula, with a few crossing over from the East Bay. These numbers indicate that Pacifica has a smaller daytime population and larger nighttime population. About 18,000 commute out of the City and about 3,000 commute into the City. Over 1,000 workers commute within city limits (On The Map – U.S. Census Bureau, 2017). The strong outflow of residents is a vital indicator of the need for enhanced access to the transit and better connections to rapid transit in nearby communities.

TOURISM AND VISITORS

Pacifica receives visitors from around the Bay Area and beyond, who want to enjoy the many outdoor experiences and local businesses that Pacifica has to offer. Especially on weekends, the areas around these destinations facilitate higher amounts of vehicular, pedestrian, and bicycle traffic. The areas around these major activity generators need improved active transportation facilities to better facilitate the high volume of pedestrians and bicyclists traveling through them. In some cases, users have to navigate travel along or a crossing of Highway 1. High-stress travel involving Highway 1 or other parts of the City can be just as detrimental to encouraging visitors to make active trips or to walk or bike between destinations instead of driving between them.

KEY LOCATIONS

LINDA MAR BOULEVARD/HIGHWAY 1

This is a major intersection that links multiple activity generators together. The Linda Mar Park-and-Ride, Linda Mar Shopping Center, Pacifica State Beach, Pedro Point, and San Pedro Creek Trail are all linked together by this intersection.

CRESPI DRIVE/HIGHWAY 1

This location primarily provides access to Pacifica State Beach, Pacifica Skatepark, and the Pacifica Community Center. There is also a senior housing center across the street from the Community Center. This is also one of the gateways to Cabrillo School.

SEA BOWL LANE/HIGHWAY 1

This location serves Sea Bowl and Pacifica Brewery. It has many access limitations because of Highway 1 and limited sidewalk connectivity.

BEACH BOULEVARD

Beach Boulevard parallels the Coastal Trail and also provides access to the Pacifica Pier, Mori Point, and the City Council Chambers.

The separation between the Coastal Trail and Highway 1 at the Crespi Drive intersection.

CONNECTIVITY ANALYSIS

While it may not be feasible to make all of your trips by walking or bicycling, the Pacifica Bicycle and Pedestrian Master Plan looks at how to improve people's walking and bicycling access to key neighborhood- and city-serving destinations so that it is a viable choice for more residents. These major walking and biking destinations include neighborhood shopping centers, schools, parks, libraries, beaches, bluffs, and hiking trails.

For destinations to truly be considered walkable or bikeable, they need to be within a reasonable distance typically one-quarter to half-mile for pedestrians[1] and about 3 miles for bicyclists[2]. Beyond those general guidelines, the destination also influences how far people will walk or bike. For example, most people will walk further to reach a train station than a bus stop. Recreation-centered walking and biking trips are generally longer distances, than utilitarian or work-related trips.

Connectivity is hindered because of additional factors including hilly terrain, limited neighborhood connectivity, and the gaps in the existing bicycle and pedestrian networks. These factors all play a role in determining an individual's propensity to walk or bike to/from specific destinations.

EXISTING BICYCLE AND PEDESTRIAN NETWORKS

BICYCLE NETWORK

Currently, bike lanes are primarily on three corridors: Linda Mar Boulevard, Palmetto Avenue, and the uphill side Sharp Park Road. The Palmetto and Linda Mar facilities provide access to schools, and the Sharp Park facility connects to the Milagra Ridge Trail. Many of the shared-use paths within Pacifica provide access to and travel along the coast. These paths also connect to some of the trailheads within the City. There are still, however, many destinations that are not close to an existing bicycle facility. Figure 4 shows the existing bicycle network overlaid with many of Pacifica's activity generators.

PEDESTRIAN NETWORK

With limited connectivity between neighborhoods (discussed in more detail in the next subsection), these arterial or collector roads are sometimes the only connection into or out of these areas. Walking in the street is likely a more-stressful experience for most pedestrians and can discourage many trips from being made as a pedestrian. Even though traffic volumes and vehicle speeds are typically lower on residential streets, the lack of sidewalks is still a hindrance for many users.

NEIGHBORHOOD CONNECTIVITY

Highway 1 and the City's varied terrain both played a significant role in Pacifica's development patterns. These two factors have greatly limited connectivity both within and across all neighborhoods within Pacifica.

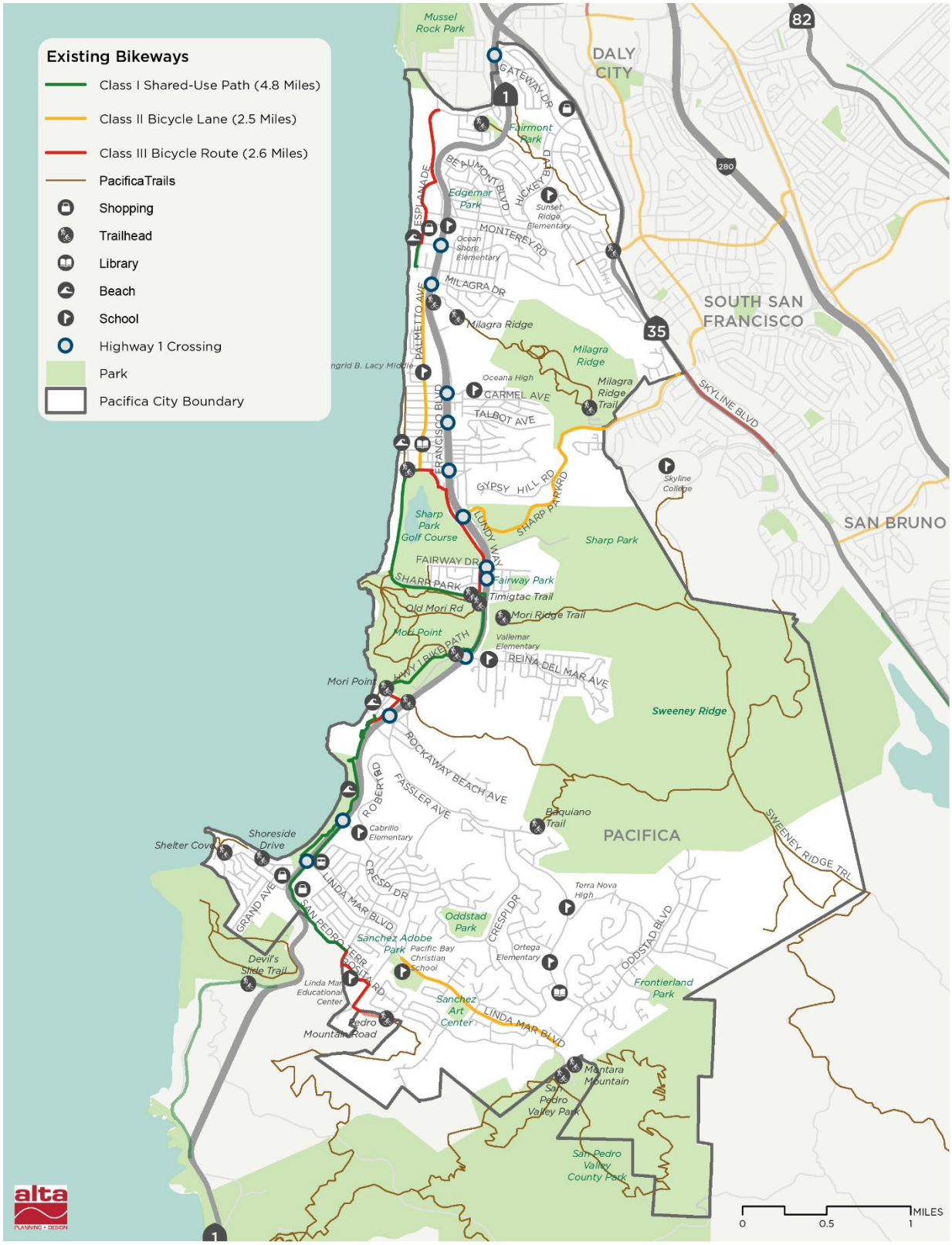
EDGEMAR/MANOR

This neighborhood is bisected by Highway 1. Parallel routes are available on both sides of the highway with Palmetto Avenue on the westside and Oceana Boulevard on the east side. There are two above-grade and one below-grade crossing of Highway 1 within this area. East of the highway, the terrain can become very steep in certain areas, but the street grid is reasonably connected.

[1] Yang, Yong et al. "Walking Distance by Trip Purpose and Population subgroups." *American Journal of Preventative Medicine 43:1 11-19. 2012.*

[2] Oregon Transportation Research and Education Consortium, "Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice." *OTREC. 2008.*

FIGURE 4: MAJOR DESTINATIONS AND EXISTING BIKEWAYS



SHARP PARK

Sharp Park is also divided by Highway 1. Oceana Boulevard continues south through the neighborhood and terminates at Clarendon Road on the east side. Francisco Boulevard is parallel to the highway; between neighborhoods, Palmetto Avenue curves west into downtown and does not connect with Francisco Boulevard. There are four crossings of Highway 1 within Sharp Park; three above-grade and one below-grade.

FAIRWAY PARK

Fairway Park is one of the smaller neighborhoods within Pacifica and is also divided by Highway 1. On the west side, Francisco Boulevard transitions to Bradford Way. Lundy Way links the half of the neighborhood on the east side to Sharp Park Road but does not continue further north. There are two crossings of Highway 1, the at-grade, uncontrolled crossing at Westport Drive and the golf course tunnel.

VALLEMAR

The Vallemar neighborhood is east of Highway 1. The neighborhood has one access point, the intersection of Highway 1/Reina Del Mar Avenue. There are no north/south connections other than Highway 1.

ROCKAWAY BEACH

The residential part of the Rockaway Beach neighborhood is located on the east side of Highway 1, and the commercial part of the area is west of Highway 1. Rockaway Beach Avenue connects both areas across the highway via the Highway 1/Fassler Avenue/Rockaway Beach Avenue intersection. The commercial part of the neighborhood is only accessible via Highway 1. The residential areas are accessible from Highway 1 and Fassler Avenue. Sea Bowl is also located near here and is only accessible from Sea Bowl Lane. Sea Bowl Lane has limited connectivity with Highway 1 and also connects to Fassler Avenue; sidewalks and crossings linking Fassler Avenue and Sea Bowl Lane are limited.

LINDA MAR

Linda Mar is Pacifica's largest neighborhood. The neighborhood is located east of Highway 1 and is accessible via Fassler Avenue, Highway 1/Crespi Drive, and Highway 1/Linda Mar Boulevard. Linda Mar is a very interconnected neighborhood. Further inland, the terrain grows increasingly hilly as you move eastward. Some roads can become especially steep like Fassler Avenue and Roberts Road. There are also commercial areas within the area, two close to Highway 1 and one more inland near Oddstad Boulevard.

PEDRO POINT

Pedro Point is another small neighborhood, located west of Highway 1, across from Linda Mar. There is one access point into Pedro Point, the Highway 1/Linda Mar Boulevard/San Pedro Avenue intersection. There is a commercial area west of the highway.

FAIRMONT/WESTVIEW

The Fairmont and Westview neighborhoods are the two northern-most neighborhoods within Pacifica. The neighborhoods lay on very hilly terrain. The area is sandwiched between Highway 1 and SR-35 – Skyline Boulevard.

SUPPORT/END-OF-TRIP FACILITIES

End-of-trip facilities are an essential component of Pacifica's bicycle network. End-of-trip facilities include bicycle parking (short term and long term parking) and self-repair stations. End-of-trip facilities can also be incorporated into existing buildings and new developments. These facilities include clothes lockers, changing areas, and showers. The outdoor facilities, especially parking, is an important factor because potential users may be less likely to complete a trip by bicycle if they do not believe they have a safe and secure location to lock their bike. These facilities serve all types of bicyclists and all bicycle trips. The indoor facilities cater more to commute riders. These facilities are necessary because they remove mental barriers that

discourage biking to work: concerns about sweating, biking in work clothes, etc.

Current bicycle parking options are very limited. One of the difficulties within Pacifica is that many of the most popular destinations, such as shopping centers and trails, are not City-owned. This does not preclude the City from providing parking but requires a partnership with the appropriate stakeholders/property owners to provide the correct type of parking in a practical and reasonable location that serves bicyclists well.

This bicyclist left his bike up against a restaurant wall as he went inside to order as there was no nearby bicycle parking available along Francisco Boulevard.

SAFETY AND COMFORT ANALYSIS

This section provides an overview of Pacifica's bicycle- and pedestrian-involved collision history and Level of Traffic Stress Analysis. Together, these help provide an understanding of where improvements are needed to address safety and perceived comfort.

SAFETY

Data on bicycle- and pedestrian-related collisions can provide insight into locations or roadway features that tend to have higher collision rates, as well as behaviors and other factors that contribute to collisions. These insights inform the recommendations in this Plan Update to address challenges facing people bicycling and walking. Collision data involving people walking and bicycling was acquired from the Statewide Integrated Traffic Records System (SWITRS), with data from the California Highway Patrol and local law enforcement agencies.

COLLISION ANALYSIS

Total reported collisions were collected from SWITRS database. Between 2013 and 2017 (most recent at time of publication) there were 38 pedestrian-involved collisions and 24 bicycle-involved collisions, 62 in total. These collisions were distributed relatively evenly across the City. There was one pedestrian fatality during the analysis period. The fatality occurred at the intersection of Skyline Boulevard/Glenncourt Way/King Drive. The following corridors had multiple collisions and are identified as challenge areas for bicycle and pedestrian safety:

- Palmetto Avenue (Palmetto Streetscape Project was implemented in 2018)
- Hickey Boulevard
- Linda Mar Boulevard

Figure 5 shows pedestrian-involved collisions. Figure 6 shows bicycle-involved collisions. Figure 7 shows both bicycle- and pedestrian-involved collisions based on the severity of the collision

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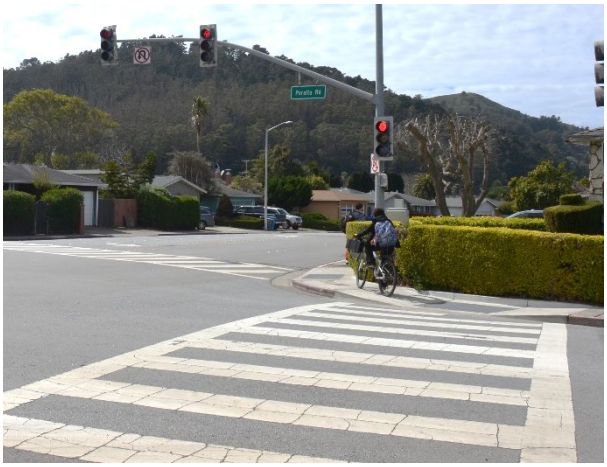


The southern crossing of Peralta Road at Linda Mar Boulevard with a student biking on the sidewalk. The high bushes significantly affect visibility around corners.

FIGURE 5: PEDESTRIAN-INVOVLED COLLISIONS

FIGURE 6: BICYCLE-INVOLVED COLLISIONS

FIGURE 7: BICYCLE- AND PEDESTRIAN-INVOLVED COLLISIONS

USER EXPERIENCE AND PERCEIVED COMFORT

Traffic stress is the perceived sense of danger associated with riding in or adjacent to vehicle traffic. Studies have shown that traffic stress is one of the most significant deterrents to bicycling. The less stressful—and therefore, more comfortable—a bicycle facility is, the wider its appeal to a broader segment of the population[3]. A bicycle network will attract a larger portion of the population if it is designed to reduce the stress associated with potential motor vehicle conflicts and if it connects people bicycling with where they want to go.

Bikeways are considered low-stress if they involve very little traffic interaction by nature of the roadway's vehicle speeds and volumes (e.g., a shared, low-traffic neighborhood street) or if higher degrees of physical separation are placed between the bikeway and traffic lane on roadways with higher traffic volumes and speeds (e.g., separated bikeway on a major street).

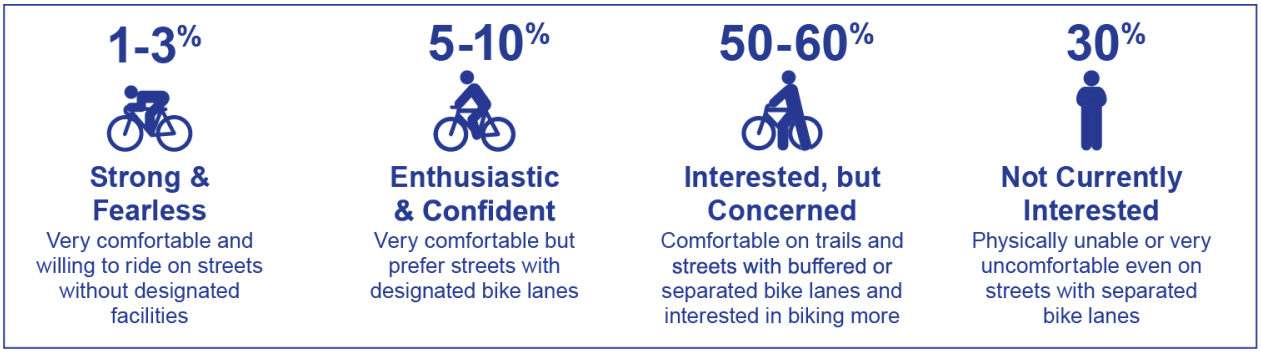
TYPES OF BICYCLISTS

Research indicates that the majority of people in the United States (56–73 percent) would bicycle if dedicated bicycle facilities were provided. However, only a small percentage of Americans (one to three percent) are willing to ride if no facilities are provided.[3] This research into how people perceive bicycling as a transportation choice has indicated that most people fall into one of four categories, illustrated below:

LTS OVERVIEW

To better meet the needs of the "Interested, But Concerned" bicyclist, planners developed the Bicycle Level of Traffic Stress (Bicycle LTS) analysis as an objective, data-driven evaluation model to help identify streets with high levels of traffic stress.[4] The analysis uses roadway network data (i.e., posted speed limit, street width, number of travel lanes, intersection conditions, presence and character of bikeway facilities, and land use context) to determine bicyclist comfort levels.

The combination of these criteria creates four levels of traffic stress for the existing roadway network. Lower the numbers indicate less stress and higher levels of comfort for people on bicycles. LTS 1 & 2 roads are typically the roadways that appeal to the "Interested, but Concerned" bicyclists.

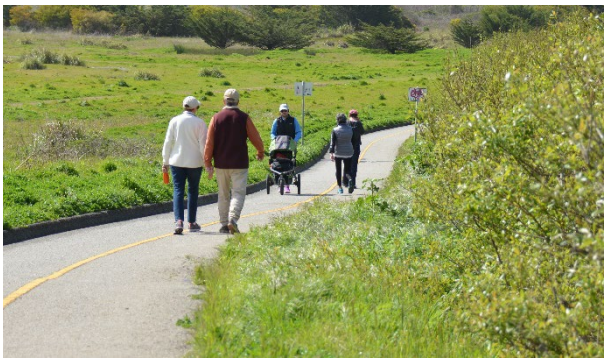


3 Roger Geller, City of Portland Bureau of Transportation. Four Types of Cyclists. http://www.portlandonline.com/transportation/ index.cfm?&a=237507. 2009; 2 Dill, J., McNeil, N. Four Types of Cyclists? Testing a Typology to Better Understand Bicycling Behavior and Potential. 2012.

4 The Level of Traffic Stress (LTS) analysis used for Santa Clara is from the 2018 VTA Countywide Bicycle Plan.

LEVEL 1: ALL AGES & ABILITIES

Level 1 includes off-street shared-use paths and some very low-stress roadways suitable for all ages and abilities. On larger roads, only Class IV separated bikeways that physically separate bicyclists from traffic are considered bicycle level of traffic stress (LTS) 1 facilities. Quiet residential streets can also be considered LTS 1 facilities.



The Calera Creek Trail is an example of an off-street Level 1 facility.

Bradford Way, south of Fairway is an example of an on-street Level 1 facility

LEVEL 2: AVERAGE ADULT

Level 2 includes roadways that are comfortable enough for the mainstream adult population to bike. LTS 2 facilities are typically roadways with lower traffic volumes and slower vehicle speeds. Busier residential streets and some collector streets can be classified as LTS 2. Larger streets that have bicycle facilities can also be considered LTS 2.

Palmetto Avenue is an example of a Level 2 facility.

LEVEL 3: CONFIDENT ADULT

Level 3 includes roadways that are likely to be comfortable for an experienced, confident bicyclist. LTS 3 streets have moderate traffic volumes and higher speeds. Corridors with bicycle facilities that provide insufficient separation from traffic are commonly considered LTS 3.

Crespi Drive is an example of a Level 3 facility.

LEVEL 4: FEARLESS ADULT

Level 4 includes roadways that are typically ridden by strong or fearless bicyclists. LTS 4 corridors have high volumes of traffic and fast vehicle speeds. Even some corridors with moderate traffic volumes and speeds may be considered LTS 4 if there are no bicycle facilities present.

Hickey Boulevard is an example of a Level 4 facility.

LTS ANALYSIS

The level of traffic stress results are shown in Figure 8. The analysis illustrates the available low-stress connections and gaps between throughout Pacifica. The Bicycle LTS results map approximates the user experience for the majority of Pacifica residents and visitors. Highway 1 was included in the LTS analysis. Residential streets were not part of the analysis and should generally be considered LTS 1 or 2 facilities. However, people may have differing opinions on traffic stress depending on their own experiences. When analyzing highways, arterials, and collector streets only, the majority of streets are considered LTS 3 (32%) or LTS 4 (44%) streets. Less than a quarter of these streets are considered comfortable for an average adult.

Multi-use trails offer a low-stress route that helps cut across these barriers; however, the majority of residents may not feel comfortable bicycling outside of their immediate neighborhood using local streets to reach them. Getting from residential areas to popular destinations may not be possible given most people's tolerance for mixing with traffic – even on streets with bicycle lanes.

FIGURE 8: LEVEL OF TRAFFIC STRESS RESULTS

CHAPTER 4: OUTREACH AND ENGAGEMENT

How was the public engaged? What did they say?

OUTREACH STRATEGY

The Bicycle and Pedestrian Master Plan update included a thorough public outreach process that included a series of public workshops, presentations to and participation from the Parks, Beaches, and Recreation Commission (PBRC), multiple pop-up events and online participation through an interactive web map. Throughout the update process, many Pacifica residents were able to voice their opinions and provide feedback on proposed projects and policies. Over 600 comments/ interactions were logged in-person and online.

POP-UP EVENTS

Pop-up events are relatively informal outreach events where members of the project team go out into the community or table at a community event to gather feedback and share Plan updates. Three pop-up events were held across Pacifica, where over 360 comments were received:

- Manor Plaza Safeway
- Rockaway Farmer's Market
- Ecofest at Pacifica State Beach

MANOR PLAZA SAFEWAY

On Sunday, January 20, 2019, members of the project team, set up a table outside of the Safeway to talk to residents about existing conditions and what it is like to walk and bike in Pacifica. This event was held early on the update process and focused on generating awareness of the Plan and gathering input.

KEY TAKEAWAYS

- Better pedestrian crossings are needed around schools.
- Residents want better pedestrian access to trails throughout the City.
- Bike parking is needed at commercial centers.

A family providing feedback during the Safeway pop-up event.

ROCKAWAY FARMERS MARKET

On Tuesday, November 14, 2018, the Plan team set up a booth at the Rockaway Farmer's Market. The existing conditions phase, and the input from this event also focused on gathering feedback from residents on walking and biking within the City.

KEY TAKEAWAYS

- Improving pedestrian and bicycle access to trails should be a priority.
- Sea Bowl and the SamTrans bus stops near Fassler/Rockaway need improved pedestrian access.

- Free right turn lanes (slip lanes) are not very friendly for pedestrians to cross, especially at Highway 1.

A bicyclist discussing his trail access concerns at the Rockaway Farmer's Market.

ECOFEST AT PACIFICA STATE BEACH

Ecofest, held on April 27, 2019, is one of the Earth Day-related activities that the City hosts. Held at Pacifica State Beach, Ecofest was the public debut of the Plan's draft recommendations. This was the public's first opportunity to provide feedback on the proposed recommendations for the bicycle and pedestrian networks.

KEY TAKEAWAYS

- Having a connected bicycle network is important.
- Class IV separated bikeways are important on the larger, faster, and hilly arterials like Fassler and Roberts.
- The recently installed bike lanes on Linda Mar Boulevard had very positive feedback, but pedestrian crossing still need enhancements throughout the corridor.
- Non-vehicular travel along Highway 1 is tough and uncomfortable.

Plan team, City staff, and PBR Commissioner Knowles listen to a group of Ecofest attendees provide their feedback on the draft recommendations.

WORKSHOPS

The City also hosted two community workshops held in conjunction with PBRC meetings at the City Council Chambers.

COMMUNITY WORKSHOP 1

The first public workshop was held early in the update process, Wednesday, January 30th, 2019, and focused on sharing the existing conditions analysis and gathering input on goals for the Plan.

KEY TAKEAWAYS

- Highway 1 is an essential piece of the transportation system and crossings for pedestrians need to be improved.
    - The Westport Drive crossing is not pedestrian-friendly. Pacifica should provide wayfinding to the tunnel.
- Improving safety around schools for students and families walking and biking should be a priority.
- Pacifica residents love the many trails and outdoor spaces and want to be able to access them without a vehicle.

Workshop attendees and PBR Commissioners discussing bicycling in Pacifica.

Attendees and commissioners providing feedback on Highway 1 crossings and intersections that are difficult to navigate.

Attendees providing feedback on recommendations at the second community workshop.

COMMUNITY WORKSHOP 2

The second community workshop was held in October 2019. This workshop served as the official release of the draft public plan.

KEY TAKEAWAYS

- The Highway 1 trails and bike facilities should be a high priority for implementation
- The Plan should make clearer that many of the off-road trails are multi-use for bicyclists and pedestrians
- Lighting of sidewalks and crossings can be improved throughout the City

ONLINE ENGAGEMENT

The Master Plan updated utilized a variety of strategizes to engage with Pacifica stakeholders online.

SOCIAL MEDIA AND ONLINE PROMOTION

The Plan utilized Pacifica's existing social media and electronic newsletter to raise awareness of the project and to advertise upcoming engagement events.

INTERACTIVE WEB MAP

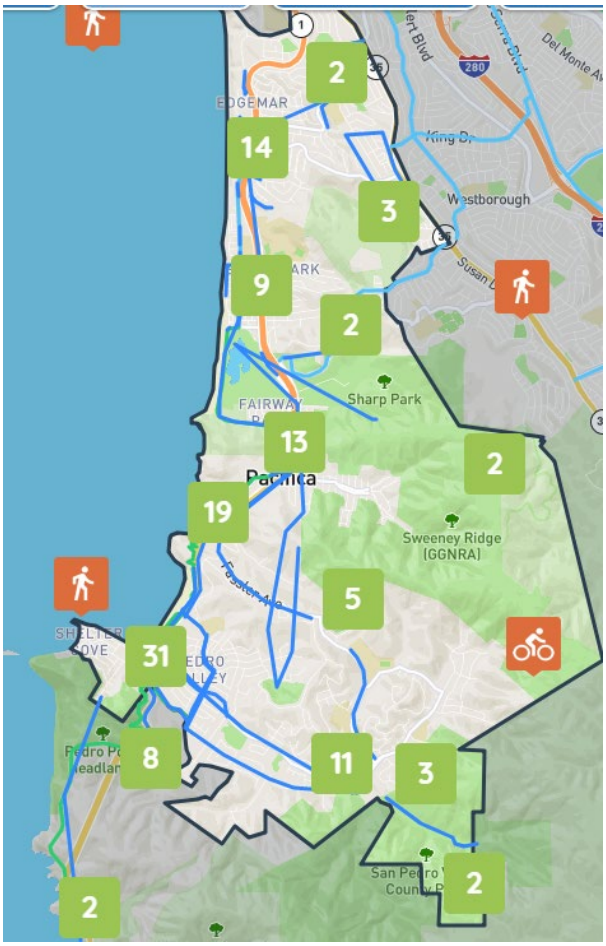
The Plan developed an interactive web mapping tool to solicit additional feedback from those who were not able or did not want to provide feedback in person. The web map tool allows users to draw routes and place markers at specific locations where they have comments or suggestions. Users can like/dislike and reply to other users' comments. The interactive web map was used in two phases for this project.

The first phase allowed respondents to share feedback about existing conditions within the City and to share specific routes that they use or would use with enhanced infrastructure.

KEY TAKEAWAYS

- Over 120 comments and routes were provided.

- Crossings of Highway 1, especially at Westport Drive, Manor Drive, and Linda Mar Boulevard are very challenging.
- Residents want better access to the coast across the highway.
- There needs to be a better way to access the Devil's Slide Trail.
- There needs to be better infrastructure around schools to make it safer for kids.

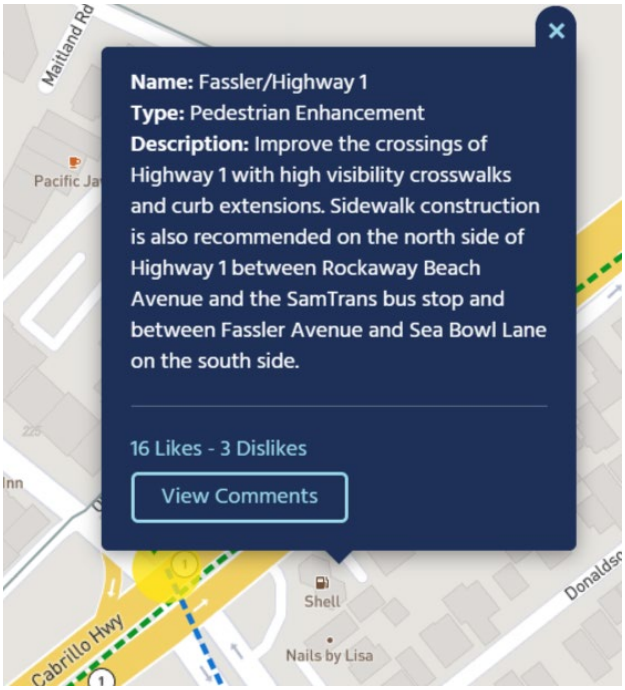


This screen capture shows the number of comments (and their general area) from the first phase of the web map.

For the second phase of the online input map, the recommended pedestrian and bicycle projects were added to the map, and users were able to respond to the proposed projects.

KEY TAKEAWAYS

- Over 100 comments on proposed projects.
- Hundreds of likes on projects and replies to comments.
- Majority of feedback focused on pedestrian projects.
- Crossing improvements for Highway 1 were the most popular in terms of likes
    - Linda Mar and Fassler were the top two "liked" project intersections.



The likes/dislikes for the pedestrian recommendations at the Fassler Avenue/Highway 1 intersection.

In addition to the input map, the draft plan was also uploaded to the project website, and visitors could provide comments directly on the document. Over 100 comments were provided by the community.

KEY TAKEAWAYS

- The Plan should expand its green infrastructure section
- The Plan should provide a higher-quality long term recommendation for Sharp Park Road.
- The Plan should provide bicycle parking recommendations

PARKS, BEACHES, & RECREATION COMMISSION

The Parks, Beaches, and Recreation Commission has played an important, active role as an advisory body throughout this Plan's update. The Commission serves as Pacifica's Bicycle and Pedestrian Advisory Committee. The project team presented to the commission on three occasions and they received additional updates from City staff. Commissioners reviewed and provided feedback on proposed recommendations and programs.

Commissioners also played an active role with the Plan's outreach and engagement activities. They helped promote and attend Plan-related activities to hear the feedback from the public directly.

WHAT WE HEARD

Throughout the outreach and engagement process, the project team gathered hundreds of comments on both existing conditions within Pacifica and what types of projects residents want to see. Across all forms of outreach, online, pop-ups, and workshops, several key themes emerged that heavily influenced the recommendations proposed in Chapter 5. The primary themes from the public are:

- Develop safe routes to schools.
- Enhance pedestrian and bicycle access to trails throughout Pacifica.
- There is a strong need for enhanced crossings of Highway 1 and better facilities for pedestrians and bicyclists to travel along or parallel to it.

KEY THEMES

Each of the three key themes and the underlying issues that were conveyed to the project team are discussed in additional detail below.

SCHOOLS

Improving pedestrian and bicycle access to schools for students and families is both a priority of the public and the PBRC. Throughout the outreach events, the Plan team heard concerns from parents about the safety of themselves and their children crossing streets near schools and bicycling on busy roads without facilities (or on streets without sidewalks for children to ride on). During events and on the online web map, attendees and respondents also provided feedback about specific corridors and intersections for the Plan team to investigate further.

TRAIL ACCESS

Pacifica has a rich network of trails throughout the City. Many residents commented on the need for better access to trailheads. There are trailheads on both sides of Highway 1 throughout most Pacifica neighborhoods. The limited connectivity between neighborhoods and across Highway 1 was cited as one of the primary concerns about this access. A larger, more connected bicycle network was also discussed during many interactions.

HIGHWAY 1

Previously discussed as part of the Existing Conditions Analysis in Chapter 2, Highway 1 is a critical but challenging component of Pacifica's transportation network. Public comments concurred with the results of the analysis, finding many of the crossings to be very high-stress and challenging for active modes, and there being limited opportunities for low-stress north-south travel along or near the corridor. With important community and visitor destinations on both sides of the highway, the public expressed a clear need for crossing and corridor enhancements.

Two bicyclists headed south on Highway 1, near the Linda Mar Boulevard intersection.

CORRIDORS & INTERSECTIONS

In addition to the three previously described key themes, the public and PBRC provided the Plan team with comments on specific locations and corridors. Each of these locations were further researched, discussed, and evaluated for recommendations and further study. A selection of the most frequently mentioned corridors and spot locations are provided below:

FREQUENTLY MENTIONED CORRIDORS

- Crespi Drive
- Linda Mar Boulevard
- Fassler Avenue
- Rosita Road
- Highway 1

FREQUENTLY MENTIONED INTERSECTIONS

- Highway 1/Fassler Avenue/Rockaway Beach Avenue/Sea Bowl Lane
- Highway 1/ Linda Mar Boulevard
- Highway 1/Crespi Drive
- Highway 1/Westport Drive
- Highway1/Manor Drive
- Linda Mar Boulevard/Peralta Road
- Linda Mar Boulevard/Oddstad Boulevard/Rosita Road
- Clarendon Road/Lakeside Drive
- Crespi Drive/Cabrillo School

The Clarendon Road/Lakeside Drive intersection.

The crossing of Crespi Drive in front of Cabrillo School.

The Highway 1/Fassler/Rockaway Beach intersection

CHAPTER 5: RECOMMENDATIONS

What are the projects and programs that can help Pacifica work towards its vision and goals?

RECOMMENDATIONS OVERVIEW

Built on the needs and opportunities identified through the evaluation of existing conditions, extensive community input, and data-driven analyses, this chapter presents the recommended bicycle and pedestrian networks for the City of Pacifica.

Recommendations are considered planning-level, meaning they should be used as a guide when implementing projects. In some cases, traffic analysis, parking study, more detailed design analysis, and additional community input will be required to evaluate specific site conditions and develop designs that reflect conditions and constraints. Some recommendations have also been made for facilities not on City of Pacifica right-of-way; these projects will need to be coordinated with the appropriate agency (i.e., Caltrans or Golden Gate National Recreation Area).

This Plan proposes 33.4 miles of new or upgraded bikeways and pedestrian infrastructure at 47 locations.

RECOMMENDATION STRATEGIES

Recommendations for this Plan were developed based on four principles:

- Improve safety and comfort
- Enhance access and mobility
- Connect to community destinations
- Reflect public input

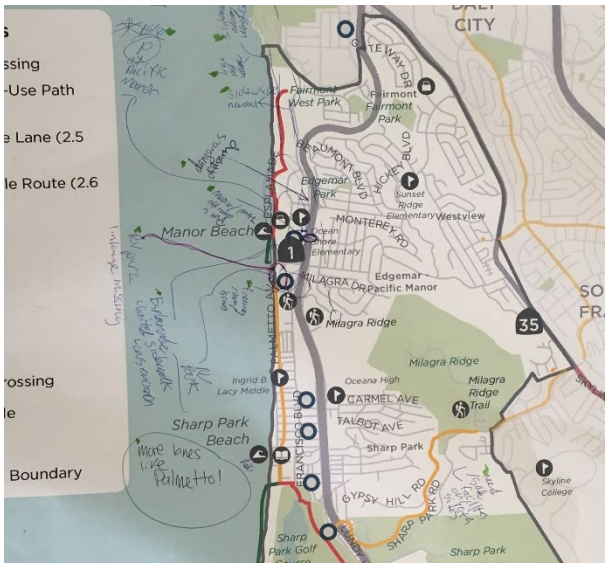
RELATION TO VISION & GOALS

This plan has four primary goals; three of the goals apply throughout Pacifica, and the Safe Routes to School goal is more focused around specific locations. These goals, in-line with the vision statement, all strive to improve walking and bicycling conditions within Pacifica. Each recommendation was developed by reviewing all relevant data and ensuring the recommendation rose to a sufficient level of connectivity and safety while remaining feasible.

RELATION TO OUTREACH/PUBLIC INPUT

Public input significantly shaped the proposed recommendations in this Plan. Dozens of recommendations originated from public comments and online input. Public involvement in the review of draft recommendations also led to project refinement. These changes included:

1. Revising the Edgemar bicycle boulevard
2. Modifying pedestrian recommendation to enhance safety further
3. Enhancement to the Fairway Park-Highway 1 tunnel
4. Sidewalk construction/repair recommendations



One of the annotated maps from the Manor Plaza Safeway pop-up event.

HOW RECOMMENDATIONS WERE DEVELOPED

BICYCLE RECOMMENDATIONS

Bicycle recommendations were developed using a context-sensitive approach that considered a variety of factors including street width, current lane configuration, presence of parking, adjacent land uses, terrain, nearby destinations, public/PBRC feedback, and connecting existing or proposed bicycle facilities, among other items. Based on these factors, a bikeway class was selected that is appropriate to the context of each street while maximizing safety, separation from vehicles, traffic calming, and network/destination connectivity.

PEDESTRIAN RECOMMENDATIONS

Pedestrian recommendations were developed by reviewing individual intersections and combining that information with the experiences described in the related public comments. Based on the comments, current infrastructure, and street context, recommendations were developed to enhance street crossings by shortening crossing distances, increasing the visibility of pedestrians, and increasing driver awareness of the potential for crossing pedestrians.

PROJECT FEASIBILITY ANALYSIS

Project recommendations should be implemented using the best practices and design standards outlined in Highway Design Manual, Manual of Uniform Traffic Control Devices, Design Information 89, NACTO's Urban Bikeway Design Guide, NACTO's Designing for All Ages and Abilities, and engineering judgment. Several project recommendations will need further evaluation based on additional study and community input. Based on the detailed engineering analysis to be conducted, roadway travel lanes may need to be narrowed, underutilized parking may need to be removed, or the road may need to be reconfigured to accommodate the recommendations. The City Council will need to approve any project where parking may be removed, or where the roadway may be reconfigured. Should City Council not approve the removal of parking or roadway reallocation, the project will not be built in that iteration.

RECOMMENDATIONS DETAIL

BICYCLE FACILITIES

CLASS I SHARED USE PATH

Dedicated paths for walking and bicycling completely separate from the roadway.

CLASS II BICYCLE LANE

Striped lanes for bicyclists.

CLASS IIB BUFFERED BICYCLE LANE

Bicycle lanes that include a striped "buffer" area either between the bicycle lane and the travel lane or between the bicycle lane and parked cars (sometimes in both areas).

CLASS III BICYCLE ROUTE

Signed routes for bicyclists on low-speed, low-volume streets where lanes are shared with motorists.

CLASS IIIB BICYCLE BOULEVARD

Bicycle routes that are further enhanced with traffic calming features or other treatments to prioritize bicyclist comfort.

This Plan provides a toolkit of bicycle boulevard treatments. Each street/bicycle boulevard group will start as a Class III bicycle route and will be analyzed and given additional opportunities for local resident input to determine appropriate traffic calming improvements for each location.

CLASS IV SEPARATED BIKEWAY

On-street bicycle facilities with a physical barrier between the bicycle space and motor vehicle lanes, including bollards, curbs, or parking.

NEIGHBORHOOD PATH

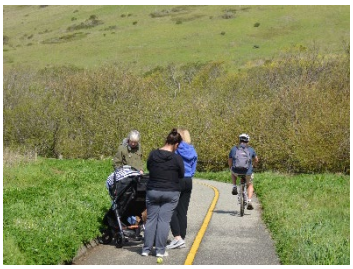
A formalized (paved or unpaved) path to connect two streets.

PROPOSED BICYCLE NETWORK

This plan recommends 34.5 miles of new or upgraded bicycle facilities across Pacifica, building on the existing 11-mile network. Tables 5A and 5B list the proposed bicycle recommendations. Figure 9 shows the recommendation on a citywide map. Figures 10-13 show the recommendations by area.

TABLE 4: EXISTING & PROPOSED BIKEWAYS

BIKEWAY CLASS	EXISTING MILES	PROPOSED MILES	TOTAL MILES
Class I Shared-use Path	4.7	4.5	9.2
Class II Bicycle Lane	3.6	6.5	8.7[5]
Class IIB Buffered Bicycle Lane	0.0	0.1	0.1
Class III Bicycle Route	2.6	0.7	1.2[6]
Class IIIB Bicycle Boulevard	0.0	18.2	18.2
Class IV Separated Bikeway	0.0	4.4	4.4
Neighborhood Path	0.0	0.1	0.1
Total	10.9	34.5	41.9[7]



Class I Shared-use Path

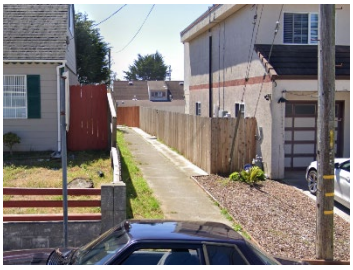
Class II Bicycle Lane

Class IIB Buffered Bicycle Lane

Class III Bicycle Route

Class IIIB Bicycle Boulevard

Class IV Separated Bikeway



Neighborhood Path

[5] 1.4 miles of Class II Bicycle Lanes are being upgraded to higher facilities.
[6] 2.1 miles of Class III Bicycle Routes are being upgraded to higher facilities.
[7] Total accounts for existing roadway segments that would be upgraded from current facilities.

TABLE 5A: PROPOSED BICYCLE PROJECTS

Street	Start	End	Bikeway	Miles
Coastal Trail Expansion	Bill Drake Way	Manor Blvd	Class I	0.14
Highway 1	Mori Point Rd	Devil's Slide Trail	Class I	3.02
Linda Mar Park and Ride			Class I	0.15
Crespi Dr	Highway 1	Shopping center driveway	Class II	0.21
San Pedro Avenue	Linda Mar/San Pedro	Mid-block crossing	Class I	0.13
Esplanade Ave	Bill Drake Way	Manor Dr	Class II	0.12
Esplanade Ave	Manor Dr	W Avalon Dr	Class II	0.14
Eureka Dr	Tablot Ave	Oceania Dr	Class II	0.14
Francisco Blvd	Clarendon Rd	Laguna Way	Class II	0.11
Linda Mar Blvd	Adobe Dr/Seville Dr	Pacific Bay Christian School driveway	Class II	0.05
Linda Mar Blvd	Shopping Center Driveway	Adobe Dr	Class II	0.74
Manor Dr	Edgemar Ave	Palmetto Ave	Class II	0.09
Oceana Blvd	Milagra Dr	Clarendon Rd	Class II	1.14
Oceana Blvd	Avalon Dr	Milagra Dr	Class II	0.07
Oddstad Blvd	Park Pacifica Ave	End of street	Class II	1.21
Oddstad Blvd	Toledo Ct	Park Pacifica Ave	Class II	0.21
Palmetto Ave	Westline Dr	Residential driveway	Class II	0.27
Palmetto Ave	Residential driveway	W Beaumont Blvd	Class II	0.31
Palmetto Ave	W Beaumount Blvd	Manor Dr	Class II	0.27
Palmetto Ave	Manor Dr	Existing facilities	Class II	0.26
Paloma Ave	Mirador Terrace	Oceana Blvd	Class II	0.07
Sharp Park Rd	City limit	Bradford Way	Class IV	1.44
Terra Nova Blvd	Oddstad Blvd	Mason Dr	Class II	1.06
Bradford Way	Sharp Park Rd	Bradford Way bend	Class IV	0.24
Clarendon Rd	Oceana Blvd	Francisco Blvd	Class IV	0.04
Clarendon Rd	Palmetto Ave	Beach Blvd	Class IV	0.07
Fassler Ave	Highway 1	Driftwood Cir	Class IV	0.89
Francisco Blvd	Laguna Way	Sharp Park Rd	Class IV	0.20
Hickey Blvd	Skyline Blvd	Monterey Rd	Class IV	0.85
Roberts Rd	Fassler Ave	Crespi Dr	Class IV	0.69
San Pedro Ave-Shoreside Dr Connector	San Pedro Ave	Shoreside Dr	Neighborhood Path	0.05

TABLE 5B: PROPOSED BICYCLE BOULEVARD PROJECTS

Bicycle Boulevard Group	Street	Start	End	Bikeway Class	Miles
Pedro Point	Danmann Ave	San Pedro Ave	Shelter Cove	Class IIIB	0.09
	San Pedro Ave	Road narrows	Kent Rd	Class IIIB	0.51
Peralta	Peralta Rd	San Pedro Terrance Rd	Crespi Dr	Class IIIB	0.40
Adobe/Seville	Adobe Dr	Linda Mar Blvd	Rosita Rd	Class IIIB	0.26
	Seville Dr	Linda Mar Blvd	Crespi Dr	Class IIIB	0.40
	Linda Mar Blvd	Adobe Dr/ Seville Dr	Pacific Bay Christian School driveway	Class IIIB	0.05
Rosita	Adobe Dr	Rosita Rd	Higgins Way	Class IIIB	0.16
	Rosita Rd	Adobe Dr	Oddstad Blvd	Class IIIB	1.22
	Rosita Rd	Peralta Rd	Adobe Dr	Class IIIB	0.21
	Trout Farm Rd	Rosita Rd	Parking lot	Class IIIB	0.13
Crespi	Crespi Dr	Shopping center driveway	Fassler Ave	Class IIIB	2.04
Alicante/ Manzanita	Alicante Dr	Terra Nova Blvd	Linda Mar Blvd	Class IIIB	0.68
	Capistrano Dr	Linda Mar Blvd	Rosita Rd	Class IIIB	0.12
	Manzanita Dr	Crespi Dr	Alicante Dr	Class IIIB	0.57
Lerida	Lerida Way	Crespi Dr	Terra Nova Blvd	Class IIIB	0.73
Everglades	Everglades Dr	Oddstad Blvd	Terra Nova Blvd	Class IIIB	0.69
Humboldt/ Yosemite	Humboldt Ct/Yosemite Dr	Oddstad Blvd	Frontierland Park	Class IIIB	0.20
Reina Del Mar	Berendos Ave	Calaveras Ave	Reina Del Mar Ave	Class IIIB	0.20
	Calaveras Ave	Reina Del Mar Ave	Berendos Ave	Class IIIB	0.17
	Reina Del Mar Ave	Highway 1	Calaveras Ave	Class IIIB	0.78
Bradford/ Mori Ridge	Bradford Way	Bradford Way bend	Mori Point Rd	Class IIIB	0.24
	Mori Ridge Rd	Highway 1	Trailhead	Class IIIB	0.26
Fairway/ Ridgeway	Fairway Dr	Bradford Way	End of street	Class IIIB	0.31
	Ridgeway Dr	Lundy Way	End of street	Class IIIB	0.21
Clarendon	Clarendon Rd	Francisco Blvd	Palmetto Ave	Class IIIB	0.15

Bicycle Boulevard Group	Street	Start	End	Bikeway Class	Miles
Sharp Park	Brighton Rd	Kohala Ave	Lunette Ave	Class IIIB	0.10
	Clarendon Rd	Oceana Blvd	Lunette Ave	Class IIIB	0.08
	Goodman Rd	Talbot Ave	Kohala Ave	Class IIIB	0.04
	Kohala Ave	Goodman Rd	Brighton Rd	Class IIIB	0.14
	Lunette Ave	Brighton Rd	Clarendon Rd	Class IIIB	0.05
	Moana Way	Oceana Blvd	End of street	Class IIIB	0.52
	Talbot Ave	End of street	Eureka Dr	Class IIIB	0.61
Carmel/ Mirador	Carmel Ave	Sierra Terrace	Mirador Terrace	Class IIIB	0.25
	Mirador Terrace	Carmel Ave	Paloma Ave	Class IIIB	0.05
Paloma	Paloma Ave	Francisco Blvd	Beach Blvd	Class IIIB	0.22
Fassler/ Terra Nova	Fassler Ave	Driftwood Cir	End of street	Class IIIB	0.42
	Terra Nova Blvd	Mason Dr	Fassler Ave	Class IIIB	0.25
Inverness	Claridge Dr	Manor Dr	End of St	Class IIIB	0.31
	Glencourt Way	Skyline Blvd	Inverness Dr	Class IIIB	0.20
	Inverness Dr	Manor Dr	Heathcliff Dr	Class IIIB	0.44
	Inverness Dr	Heathcliff Dr	Hickey Blvd	Class IIIB	0.29
East Manor	Edgemar Ave	Milagra Dr	Ocean Shore School	Class IIIB	0.27
	Johnson Ave	Nelson Ave	Manor Dr	Class IIIB	0.13
	Manor Dr	Johnson Ave	Edgemar Ave	Class IIIB	0.04
	Manor Dr	Palmetto Ave	Esplanade Ave	Class IIIB	0.10
	Milagra Dr	Oceana Blvd	Edgemar Ave	Class IIIB	0.06
	Nelson Ave	Johnson Ave	Norfolk Dri	Class IIIB	0.39
	Norfolk Dr	Monterey Rd	Nelson Ave	Class IIIB	0.06
Farallon/ Coral Ridge	Catalina Ave	Hickey Blvd	Coral Ridge Dr	Class IIIB	0.43
	Channing Way	Farallon Ave	Fremont Ave	Class IIIB	0.10
	Coral Ridge Dr	Catalina Ave	Farallon Ave	Class IIIB	0.07
	Farallon Ave	Coral Ridge Dr	Channing Way	Class IIIB	0.51
	Fremont Ave	Monterey Rd	Nelson Ave	Class IIIB	0.05
	Fremont Ave	Channing Way	Monterey Rd	Class IIIB	0.15
	Monterey Rd	Waterford St	Fremont Ave	Class IIIB	0.12
Gateway	Gateway Dr	Highway 1	Hickey Blvd	Class IIIB	0.64
North Palmetto	Palmetto Ave	Westline Dr	Fairmont Park	Class IIIB	0.33
W. Avalon	W. Avalon Dr	Esplanade Ave	Palmetto Ave	Class IIIB	0.09

FIGURE 9: RECOMMENDED BICYCLE FACILITIES

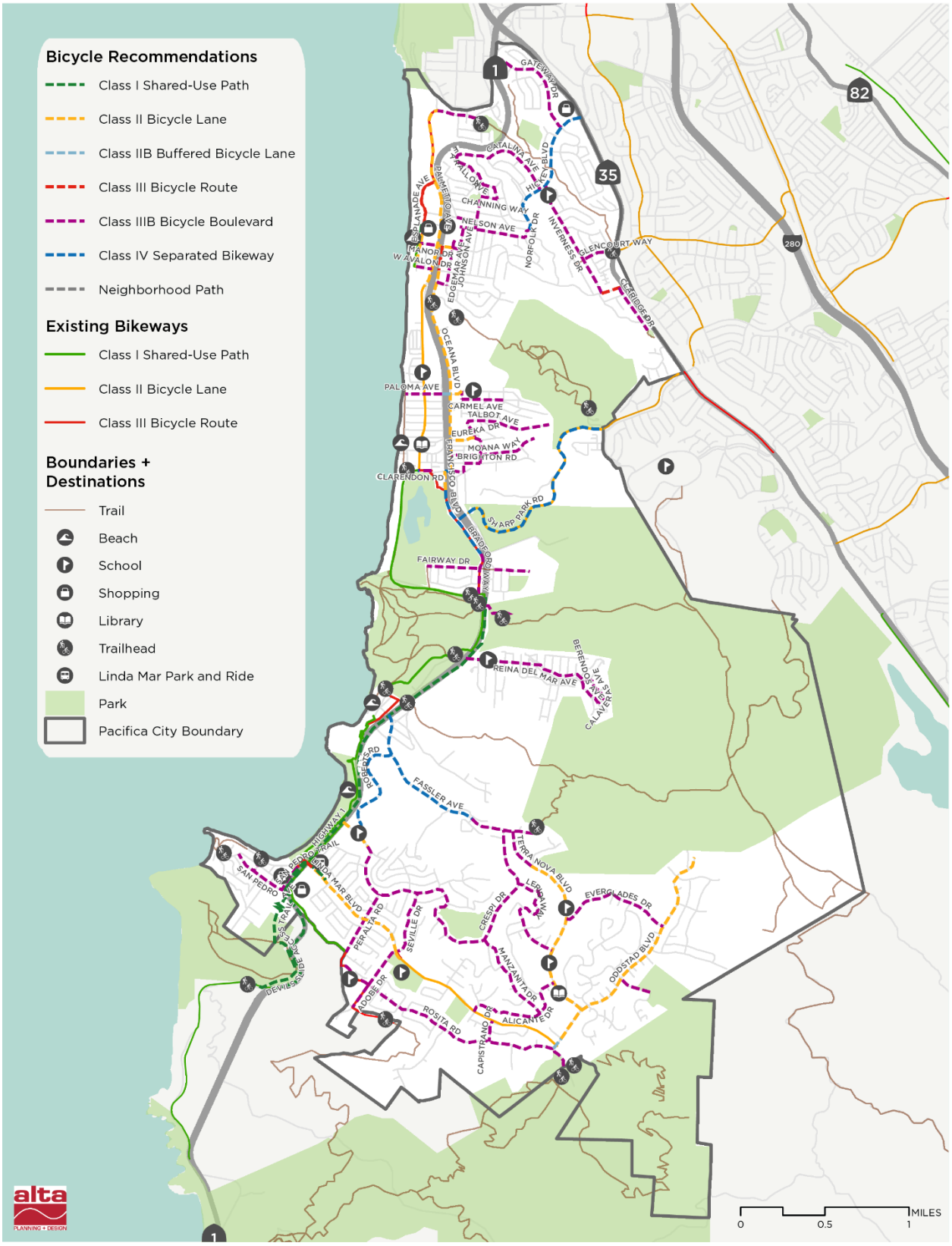
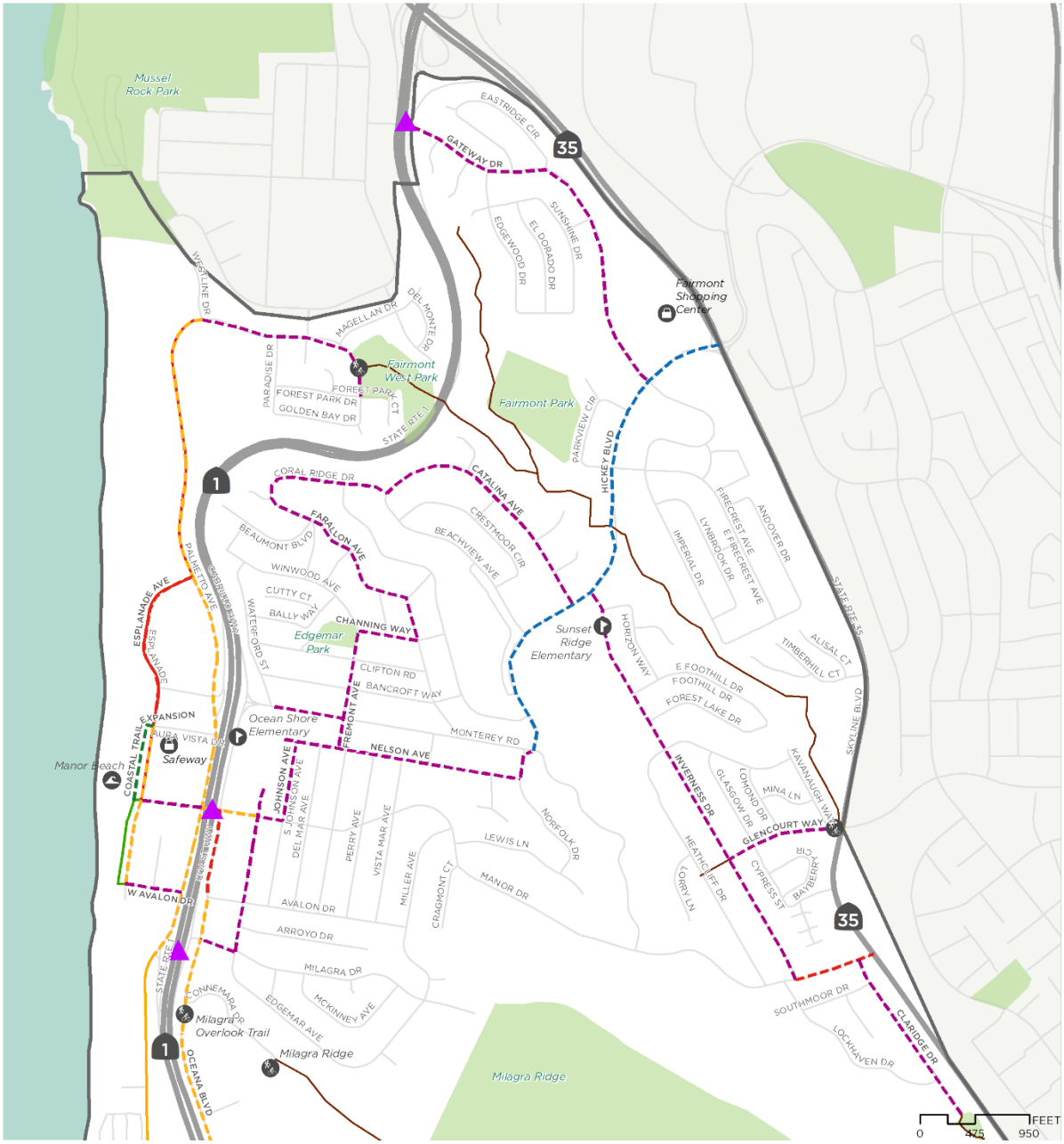


FIGURE 10: RECOMMENDED BICYCLE FACILITIES – MANOR



BIKEWAY RECOMMENDATIONS

MANOR

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

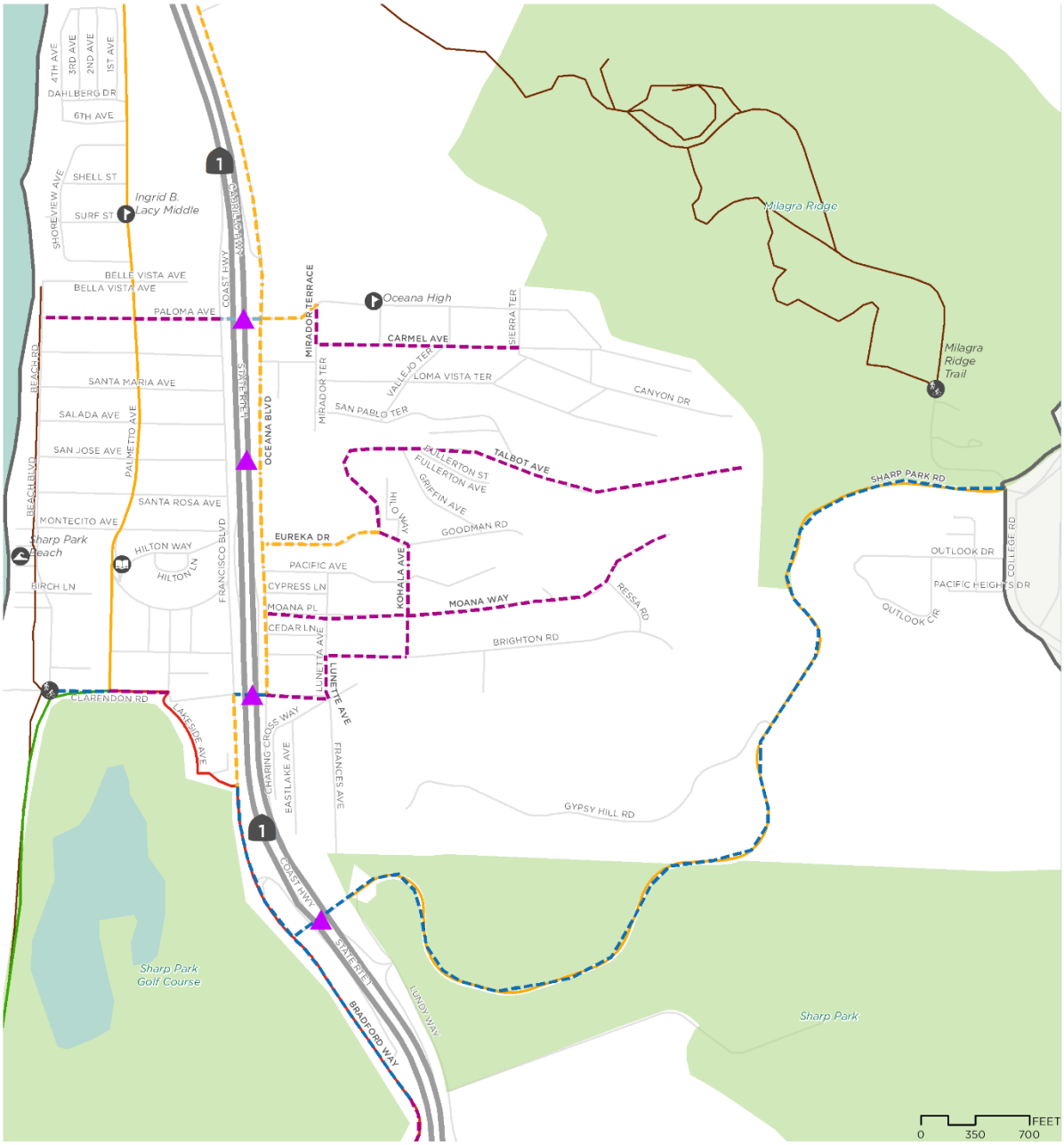
alta PLANNING + DESIGN

Proposed Bikeways
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

Existing Bikeways
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Trail
- Highway 1 Crossing

Boundaries + Destinations
- Beach
- School
- Shopping
- Trailhead
- Park
- Pacifica City Boundary

FIGURE 11: RECOMMENDED BICYCLE FACILITIES – SHARP PARK



BIKEWAY RECOMMENDATIONS

SHARP PARK

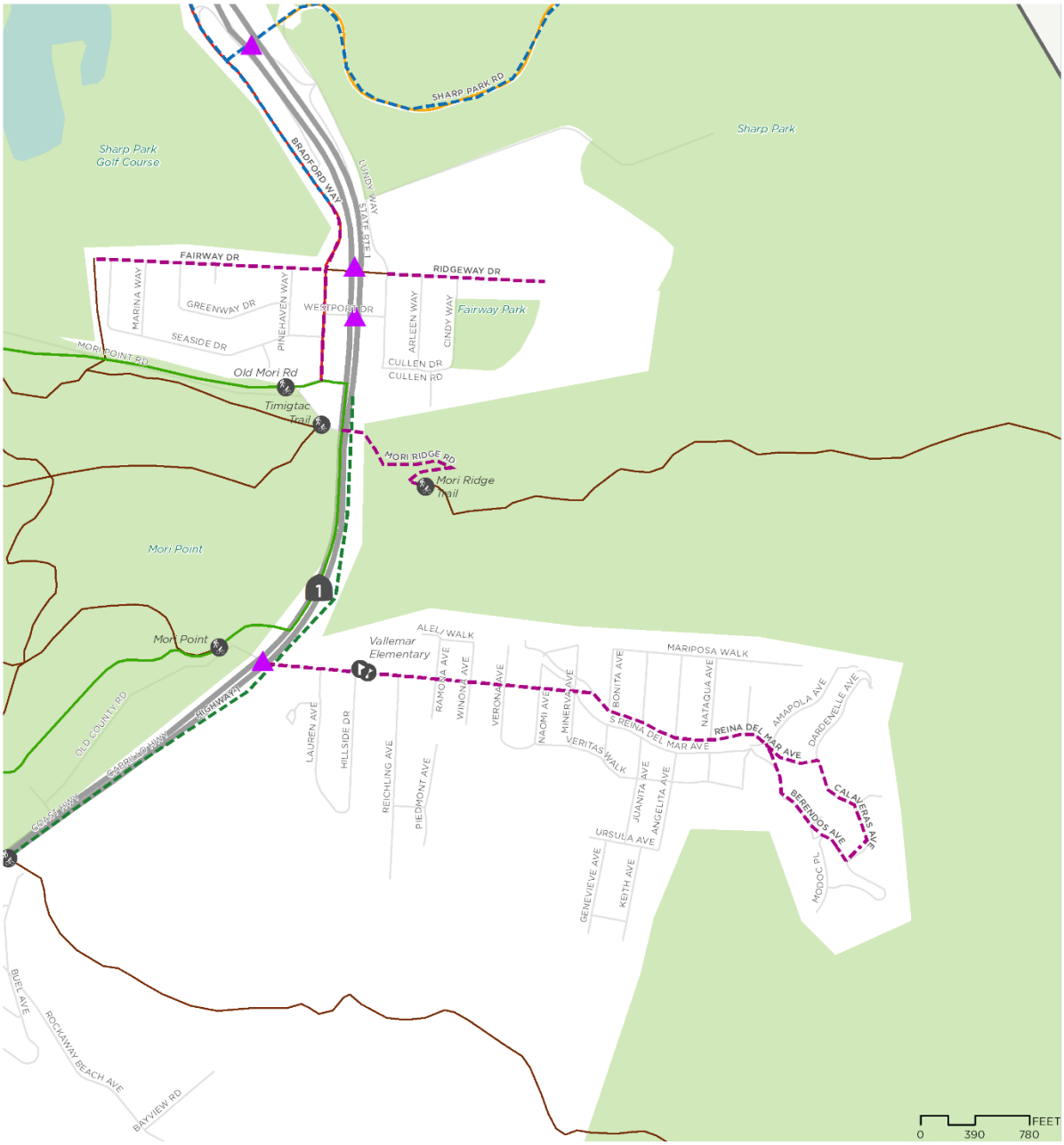
PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

Proposed Bikeways
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

Existing Bikeways
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Trail
- Highway 1 Crossing

Boundaries + Destinations
- Beach
- School
- Library
- Trailhead
- Park
- Pacifica City Boundary

FIGURE 12: RECOMMENDED BICYCLE FACILITIES – FAIRWAY PARK/VALLEMAR



BIKEWAY RECOMMENDATIONS

VALLEMAR/FAIRWAY PARK

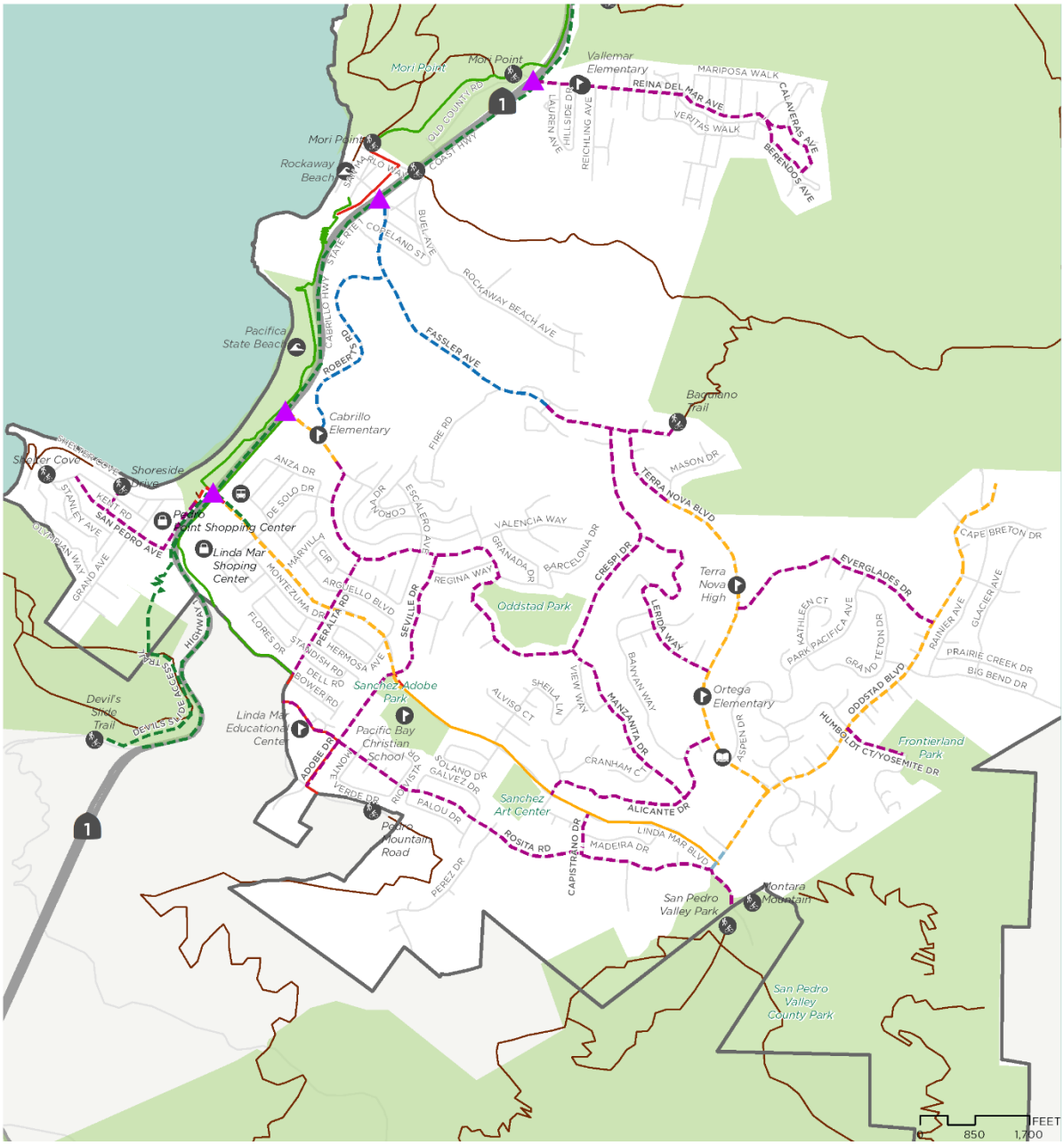
PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

Proposed Bikeways
- Class I Shared-Use Path
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

Existing Bikeways
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Trail
- Highway 1 Crossing

Boundaries + Destinations
- School
- Trailhead
- Park
- Pacifica City Boundary

FIGURE 13: RECOMMENDED BICYCLE FACILITIES – LINDA MAR



BIKEWAY RECOMMENDATIONS

LINDA MAR

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

alta PLANNING + DESIGN

Proposed Bikeways

- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

Existing Bikeways

- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Trail
- Highway 1 Crossing

Boundaries + Destinations

- Beach
- School
- Shopping
- Library
- Trailhead
- Linda Mar Park and Ride
- Park
- Pacifica City Boundary

BICYCLE BOULEVARD TOOLKIT

Unlike other classifications of bicycle facilities, bicycle boulevards are unique in that there are no specific standards or treatments. Bicycle boulevards can be implemented in a variety of ways to achieve streets where bicycle travel is comfortable sharing with cars. There are three primary categories of improvements:

- Signs and pavement markings
- Vehicle speed management
- Vehicle volume reduction

Individual projects will be analyzed to determine the treatments that best reflect the solutions that will bring about the highest increase in bicyclist comfort and safety will respecting and coordinating with the needs and desires of nearby residents and stakeholders. Treatments will vary from simple signage and striping only to more advanced intersection redesigns. This Plan does not provide specific infrastructure recommendations for the proposed recommendations.

Examples of treatments from the three categories mentioned above are below:

SIGNS AND PAVEMENT MARKINGS

PAVEMENT MARKINGS

Bicycle boulevards can have unique pavement markings or sharrows to reinforce that the street is a shared space for bicycles and vehicles. Sharrows can also have green backing to increase driver awareness further.

Example bicycle boulevard markings in Berkeley.

WAYFINDING SIGNS

Wayfinding is an essential component of the overall bicycle network (discussed in a subsequent section) but plays an even more significant role on bicycle boulevards. Bicycle boulevards can weave through neighborhoods, increasing the importance of the signs to help users complete their trips. Wayfinding can also raise awareness of the presence of the bicycle boulevard, potentially generating new users.

Bicycle boulevard-specific wayfinding signs in Berkeley.

VEHICLE SPEED MANAGEMENT

REDUCE SPEED LIMIT

In some areas, especially around schools, reducing the speed limit below 25 MPH may be a helpful strategy in slowing cars and making bicyclists and pedestrians more comfortable in the corridor.

NEIGHBORHOOD TRAFFIC CIRCLE

Neighborhood traffic circles are an alternative intersection treatment to a signal or stop sign. Traffic circles can regulate the flow of traffic while adding a traffic calming element.

CURB EXTENSIONS

Curb extensions extend the curb into the street. They shorten the crossing distance for people walking, provide improved visibility at intersections, make pedestrians more visible to motorists, and provide additional pedestrian queueing space.

A paint-and-post curb extension in Oakland.

CHICANES

Chicanes add gentle curves to otherwise straight streets. Adding the curves to road slow car traffic by narrowing the travel lane. The lane adjustments can be created with just striping or with offset curb extensions/landscaping.

This chicane uses both offset landscaped curb extensions and striping.

CHOCKERS/PINCH POINTS

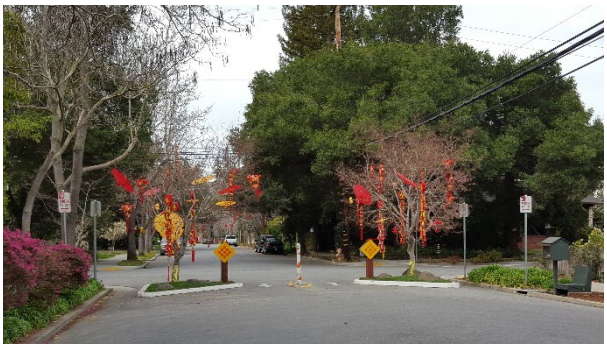
A pinch point narrows available roadway width with two curb extensions. Limiting the available width creates a narrow road environment where drivers drive slower. Installing trees in these areas can further narrow the profile of the road.

SPEED BUMPS/SPEED HUMPS/SPEED CUSHIONS

Speed bumps (and similar devices) are bumps that span the width of the roadway and encourage cars to slow down. Speed bumps can be designed with slots for emergency vehicles to use.

VEHICLE VOLUME REDUCTION

Partial street closures, diagonal diverters, and median diverters are variations of ways to partially close off streets to vehicles while maintaining pedestrian and bicycle access. These can be useful for forcing drivers to stay on arterial and collector streets, reducing cut-through traffic.



A partial street closure with landscaped islands.

PROPOSED PEDESTRIAN NETWORK

The Plan recommends pedestrian infrastructure improvements at 49 locations across the City, primarily in Pedestrian Priority Areas.

PEDESTRIAN PRIORITY AREAS (PPAS)

Pedestrian priority areas were developed by finding locations that were within proximity to one or more schools, trailheads, and a crossing of Highway 1. These three criteria are the activity generators that have the potential to generate substantial volumes of pedestrians. Pedestrian improvements are not limited to within these areas. These areas were selected to address the highest needs.

The four PPAs are:

- Manor PPA
- Sharp Park PPA
- Vallemar/Fairway Park PPA
- Linda Mar PPA

RECOMMENDATIONS

Figure 14 displays the PPA areas throughout Pacifica. Figure 15 and Table 6 show the pedestrian recommendations for the Manor PPA. Figure 16 and Table 7 show the recommendations for the Sharp Park PPA. Figure 17 and Table 8 show the recommendations for the Vallemar/Fairway Park PPA. Figure 18 and Table 9 show the pedestrian recommendations for the Linda Mar PPA.

PEDESTRIAN TOOLKIT

This Plan's toolkit provides pedestrian infrastructure that falls into six general categories:

- Pavement markings
- Pedestrian-actuated beacons
- Street furniture
- Sidewalks, trails, and medians
- Intersection and street design
- Studies

Example infrastructure components from each the categories are provided below. The toolkit below is not an exhaustive list of potential solutions. Exact solutions for each location should be selected based on engineering and planning judgment and best practices to maximize safety and pedestrian accessibility.

PAVEMENT MARKINGS

ADVANCE STOP & ADVANCE YIELD MARKINGS

Advance yield pavement markings, also referred to as "Shark's teeth," are markings placed on the roadway 20'-50' before a mid-block crosswalk or crosswalk at an intersection approach without a signal or stop sign.

Stop lines are solid white lines that extend across approach lanes. They may be used to indicate the point behind which vehicles are required to stop in compliance with a STOP sign, or some other traffic control device that requires vehicles to stop.

Shark's teeth before a mid-block crossing on Oceana Blvd.

CROSSWALKS

All crosswalk recommendations are subject to a pedestrian needs analysis to determine the safest, most efficient location to install the crosswalk.

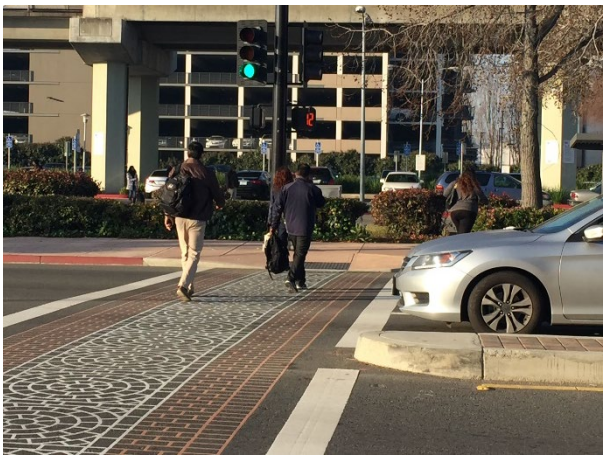
HIGH VISIBILITY CROSSWALKS

High visibility crosswalks are crosswalks that are marked with thick bars, drawing additional attention and awareness to the crossing. In school zones, these crossings are yellow, as opposed to the standard white color.

A yellow high visibility ladder crosswalk on Manor Drive.

DECORATIVE CROSSWALKS

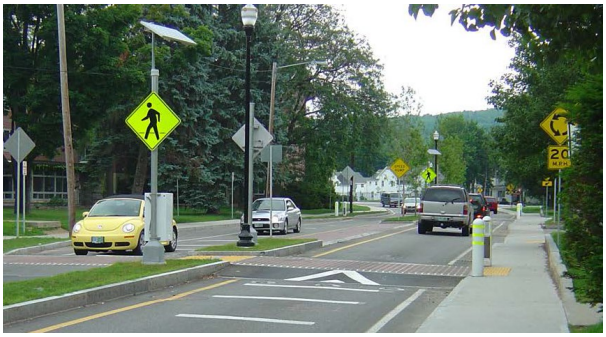
Decorative crosswalks can add a placemaking element to the street, while still serving the primary visibility and awareness objectives of a marked crosswalk. Decorative crosswalks can be themed to reflect the surrounding neighborhood or nearby destinations. Decorative crosswalks meet certain design parameters to remain complaint with state and federal standards; most importantly that they include the white transverse markings around any decorative pavement treatment.



Decorative crosswalks.

RAISED CROSSWALKS

A raised crosswalk is a modification of a speed table. Speed tables reduce vehicle speeds by elevating the entire wheelbase of a vehicle (unlike a speed bump that raises each axel individually) Speed tables can be designed to include a mid-block raised crosswalk; in these cases, the height of speed table matches the sidewalk. This treatment makes pedestrians more visible to approaching motorists and also slows vehicles.



An example of a raised crosswalk.

TRAIL MARKINGS

Paved trails can include striping to demarcate separate areas for pedestrians and bicyclists. Especially on crowded trails with high pedestrian usage, encouraging spatial separation can reduce conflicts and improve the efficiency and consistency of bicycle travel.

Example trail pavement markings.

PEDESTRIAN-ACTUATED BEACONS

RECTANGULAR RAPID FLASHING BEACON (RRFB)

RRFBs are user-activated flashing lights used at unsignalized intersections or mid-block crossings. These beacons alert motorists to the presence of people in the crosswalk.

An RRFB at a mid-block crossing across Oceana Boulevard.

PEDESTRIAN HYBRID BEACON/HAWK

A pedestrian hybrid beacon, also known as a High-intensity Activated CrosswalK (HAWK), is a signal designed to increase safety for pedestrians crossing at non-signalized locations on multilane roadways. Thresholds for installation vary based on the posted speed limit, crossing distance, vehicular volumes, and volumes of pedestrian crossings.

An example HAWK beacon.

STREET FURNITURE

SIGNAGE

Signs serve a wide range of uses from prohibiting movements, limiting parking, or providing advance notice of school zones or crosswalks.

STREET FURNITURE/AMENITIES

Street furniture includes items like benches, transit shelters, trash cans, newsstands, and other items within the public right-of-way.

A bus stop with a bench on Palmetto Road.

LIGHTING

Pedestrian-scale lighting improves visibility for both people walking and driving, particularly at intersections. Lighting can be achieved on one light pole (one light for the road and one light for the sidewalk) or separate poles. These lights focus on illuminating the sidewalk, not the roadway. Lighting is also an important consideration along trails.

SIDEWALKS, TRAILS, AND MEDIANS

SIDEWALKS

Sidewalks provide dedicated space for pedestrians to walk. Sidewalks are raised from the roadway and somethings have a planting strip for increased separation from the roadway. Obstructions like utility boxes, signs and poles can sometimes limit available sidewalk width.

SHARED-USE PATHS

Dedicated paths for walking and bicycling completely separate from the roadway. When paved with asphalt or concrete, trails can include markings to encourage separation of modes.

CURB EXTENSIONS

Curb extensions extend the curb into the street. Curb extensions or can provide several valuable traffic calming and safety benefits. They shorten the crossing distance for people walking, provide improved visibility at intersections, make pedestrians more visible to motorists, and provide additional pedestrian queueing space. They can be installed at intersections or mid-block. Curb extensions can be made with permanent materials like cement or pavement markings and bollards.

An example curb extension at a mid-block crossing.

CURB RAMPS

Curb ramps allow for smooth transitions between the sidewalk and street level. Curb ramps are essential for those with special mobility needs, strollers, and many other users. Ramps must be built to current ADA standards.

A curb ramp for the Carmel Avenue crossing at Francisco Boulevard.

INTERSECTION & STREET DESIGN

INTERSECTION REDESIGN

Intersections are not always symmetrical. Intersections can take on confusing designs when multiple streets come together or when two streets come together at acute angles. There are design components like curb extensions, painted buffer areas, and medians that make intersections more inviting and less stressful for active users.

The Clarendon/Lakeside intersection south approach in an example of an intersection that would benefit from a redesign. – Image: GoogleMaps

FREE-RIGHT TURN LANE/SLIP LANE REMOVAL

Free-right turn lanes facilitate increased vehicle throughout and faster turns at intersections at the expense of pedestrian and bicyclist safety and movement.

The Rockaway Beach/Fassler/Highway 1 intersection. There is a slip lane at the western approach feeding to Highway 1. – Image: GoogleMaps

TRAFFIC CALMING

Traffic calming is the implementation of roadway changes to slow down vehicle traffic. There is a wide array of tools that engineers can consider to slow vehicle traffic, including speed bumps, chicanes, speed feedback signs, and other items. Traffic calming is also an essential component of bicycle boulevards.

STUDIES

STOP SIGNS

A stop sign is a traffic control device used to regulate traffic through an intersection. One or multiple intersection approaches can be stop-controlled. In general, the implementation of stop control is regulated by the CA-MUTCD and requires that a technical analysis be conducted.

COMPLEX INTERSECTIONS/SITUATIONS

While most of the locations that were examined for the Plan have recommendations, some locations will require additional study and traffic analysis to develop recommendations for those locations. Many of these locations include crossings of Highway 1 and asymmetrical intersections. In other cases, environmental factors like terrain also need to be evaluated to ensure that sufficient sightlines are provided

FIGURE 14: PEDESTRIAN PRIORITY AREAS

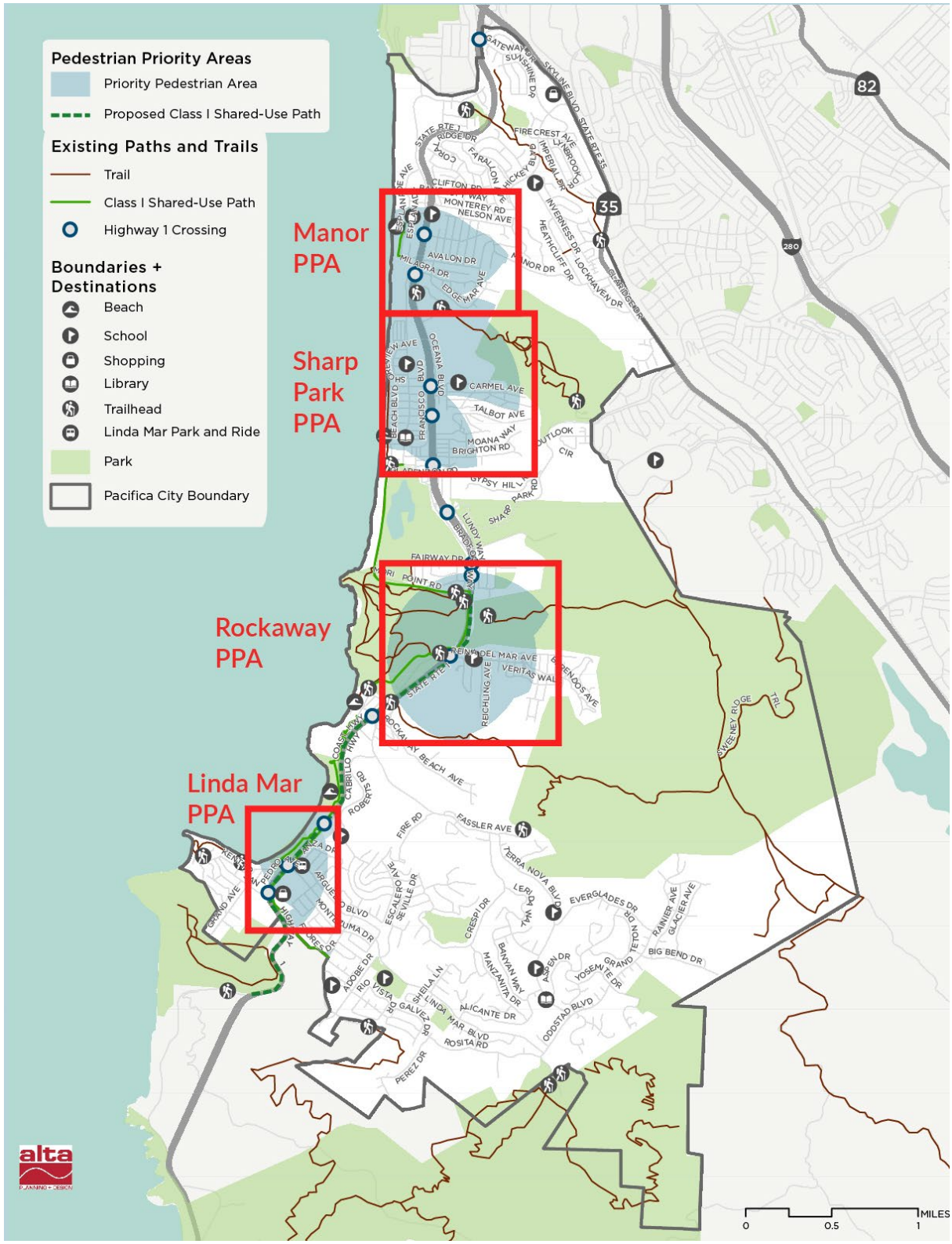
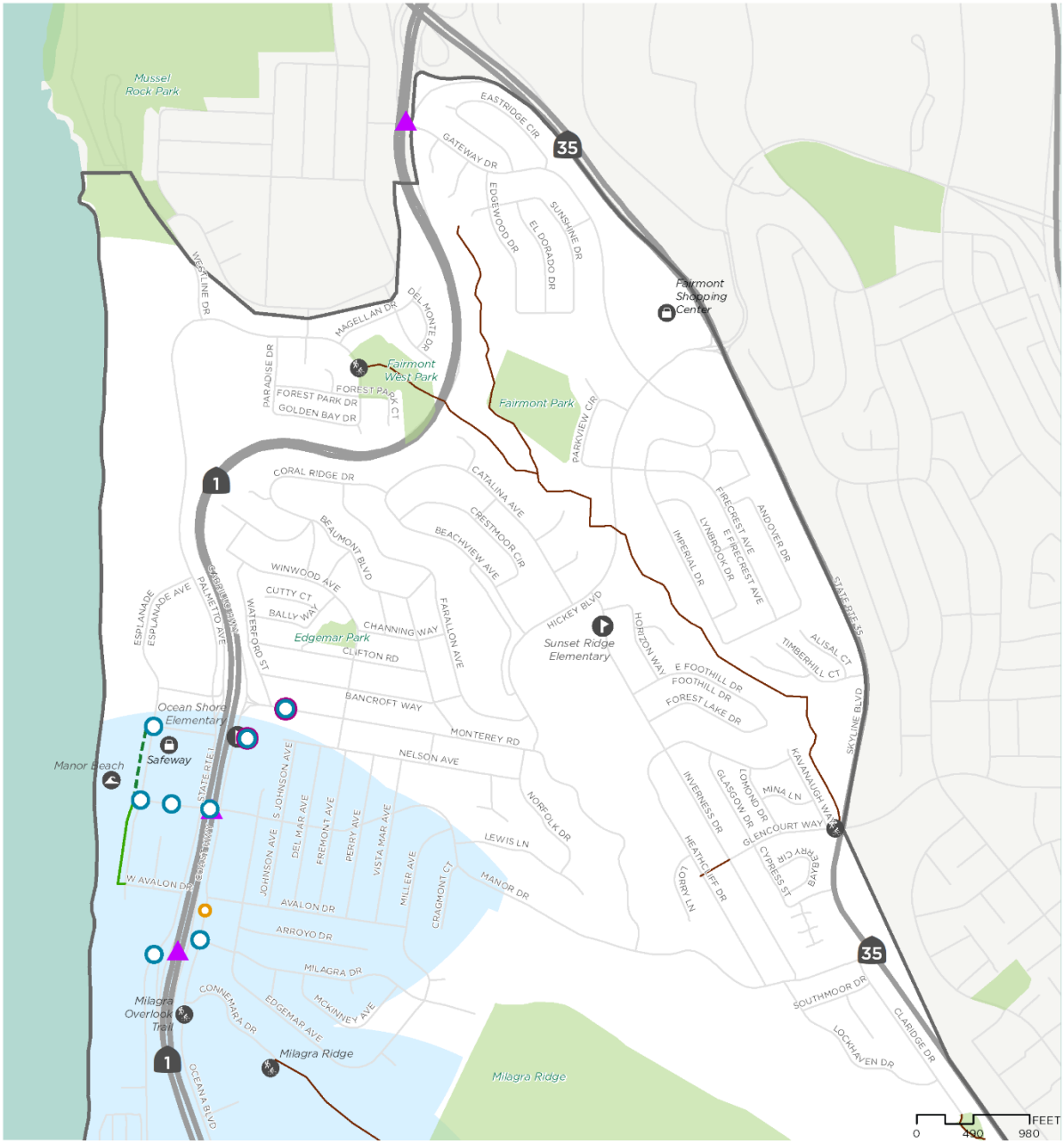


FIGURE 15: PEDESTRIAN RECOMMENDATIONS – MANOR PPA



PEDESTRIAN RECOMMENDATIONS

MANOR

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

Proposed Improvements
- Walking Envs. Enhancement
- Crossing Improvement
- School Area Improvement
- Class I Shared-Use Path
- Ped Priority Area

Existing Facilities
- Class I Shared-Use Path
- Trail
- Highway 1 Crossing

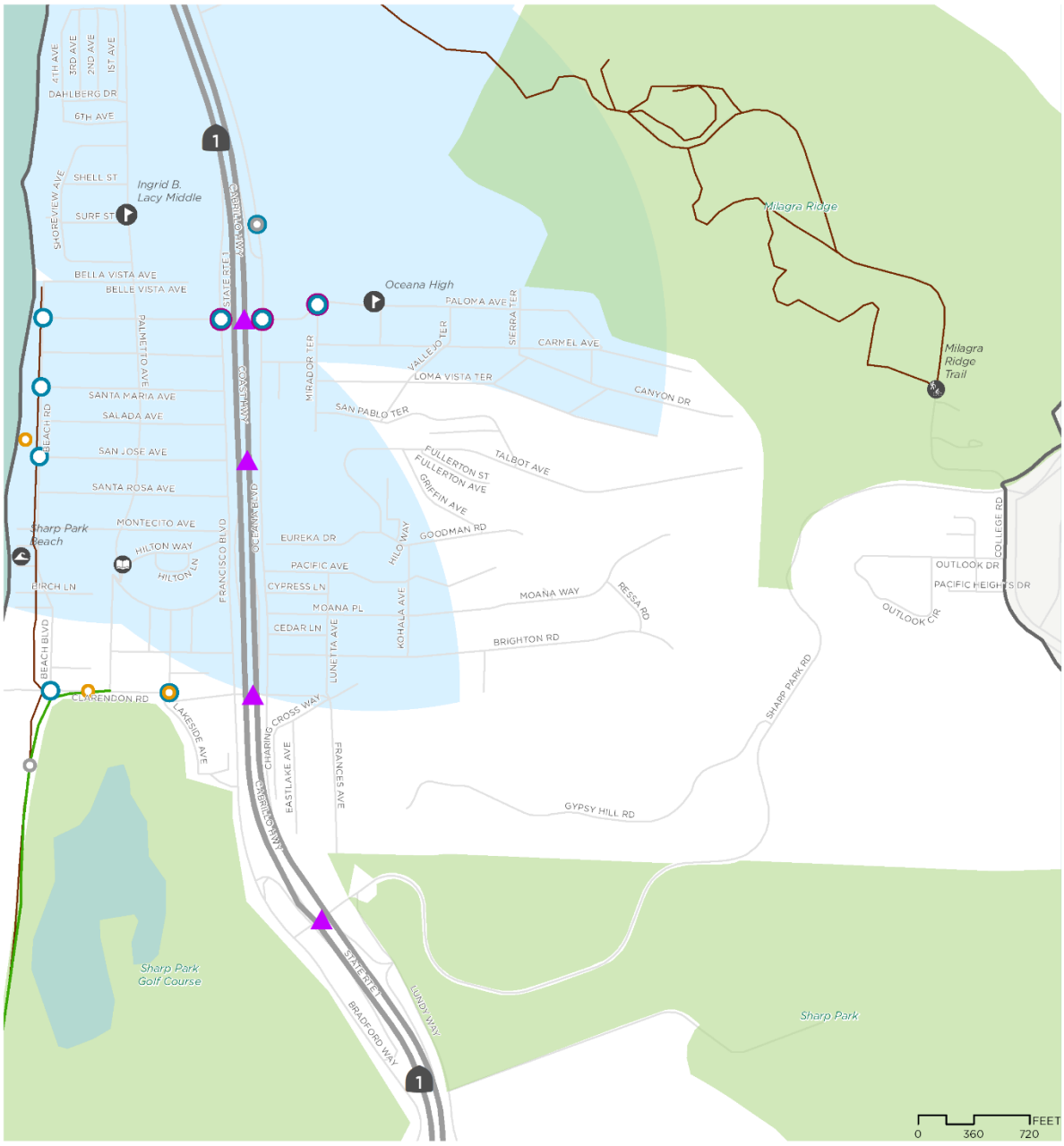
Boundaries + Destinations
- Beach
- School
- Shopping
- Trailhead
- Park
- Pacifica City Boundary

TABLE 6: PEDESTRIAN RECOMMENDATIONS – MANOR PPA

LOCATION	RECCOMENDATIONS
Highway 1/Milagra Drive Pedestrian Overpass	Improve crossing conditions and SamTrans access with additional pavement markings and a pedestrian actuated flashing beacon. The Palmetto Avenue Highway 1 ramp and crosswalk should be reconfigured to improve pedestrian safety.
Milagra/Oceana	Enhance pedestrian crossing infrastructure at this intersection.
Ocean Shore School	Improve pedestrian crossing infrastructure around Ocean Shore School to facilitate Safe Routes to Schools.
Monterey Road Mid-block Crossing	Reposition the mid-block crosswalk to a better location and add a pedestrian rectangular rapid flashing beacon. Construct curb extensions.
Manor Drive/Manor Plaza	Install a pedestrian actuated flashing beacon for the crossing of Manor Drive, upgrading the existing beacon.
Manor/Esplanade	Improve crossings of Esplanade Avenue with crosswalks and a pedestrian rectangular rapid flashing beacon.
Oceana Boulevard	Sidewalk improvements/construction between Milagra and Avalon.
Manor/Palmetto	Upgrade/refresh all crosswalks to high visibility crosswalks. Install advance stop markings.
Esplanade Avenue, south of Bill Drake Way	Add a mid-block crossing at the end of the Coastal Trail. Install with advance yield pavement markings and signs.

The Highway 1 northbound off-ramp at Milagra Drive. Oceana Boulevard had just been resurfaced in the photo. There is a SamTrans stop north of the corner left of the ramp.

FIGURE 16: PEDESTRIAN RECOMMENDATIONS – SHARP PARK PPA



PEDESTRIAN RECOMMENDATIONS

SHARP PARK

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

Proposed Improvements
- Study
- Walking Envs. Enhancement
- Crossing Improvement
- School Area Improvement
- Ped Priority Area

Existing Facilities
- Class I Shared-Use Path
- Trail
- Highway 1 Crossing

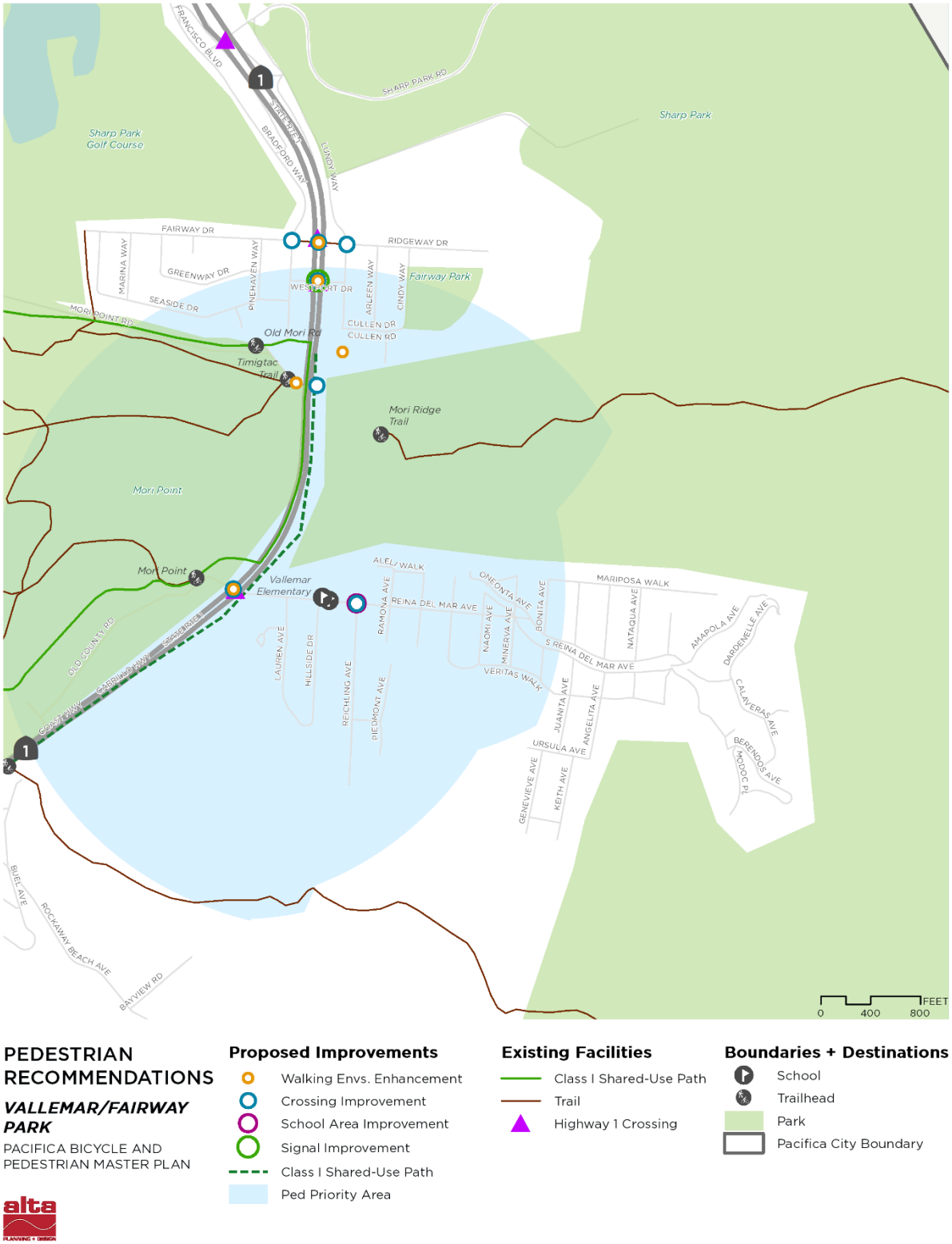
Boundaries + Destinations
- Beach
- School
- Library
- Trailhead
- Park
- Pacifica City Boundary

TABLE 7: PEDESTRIAN RECCOMENDATIONS – SHARP PARK PPA

LOCATION	RECCOMENDATIONS
Paloma/Francisco - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.
Paloma/Oceana - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.
Paloma/Mirador - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.
Oceana Boulevard	In the short term, fill in sidewalk gaps, mark crosswalks, and install curb ramps along Oceana Boulevard. In the long term, create a shared-use path throughout the corridor.
Clarendon/Lakeview	Redesign the intersection to facilitate safer, more predictable pedestrian movements. Other improvements include flashing beacons and high visibility crosswalks.
Clarendon Road along the golf course	Work with SFPUC to construct a dedicated pedestrian path along the golf course.
Coastal Trail, south of Clarendon	Work with SFPUC to bring enhancements and amenities to the Coastal Trail, south of Clarendon Road. Improvements include surface treatment upgrades and amenities like benches and lighting.
Coastal Trail, along Beach Boulevard	Bring enhancements to the existing trail, including pavement markings to delineate modes (bikes and pedestrians) and lighting.
Beach/Paloma	Improve coastal access by enhancing crossings of Beach Boulevard.
Beach/Santa Maria	Improve coastal access by enhancing crossings of Beach Boulevard.
Beach/San Jose	Improve coastal access by enhancing crossings of Beach Boulevard.
Beach/Clarendon	Improve coastal access by enhancing crossings of Beach Boulevard.

An unpaved segment of the Coastal Trail, south of Clarendon Road.

FIGURE 17: PEDESTRIAN RECOMMENDATIONS – VALLEMAR/FAIRWAY PARK PPA



PEDESTRIAN RECOMMENDATIONS

VALLEMAR/FAIRWAY PARK

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

Proposed Improvements
- Walking Envs. Enhancement
- Crossing Improvement
- School Area Improvement
- Signal Improvement
- Class I Shared-Use Path
- Ped Priority Area

Existing Facilities
- Class I Shared-Use Path
- Trail
- Highway 1 Crossing

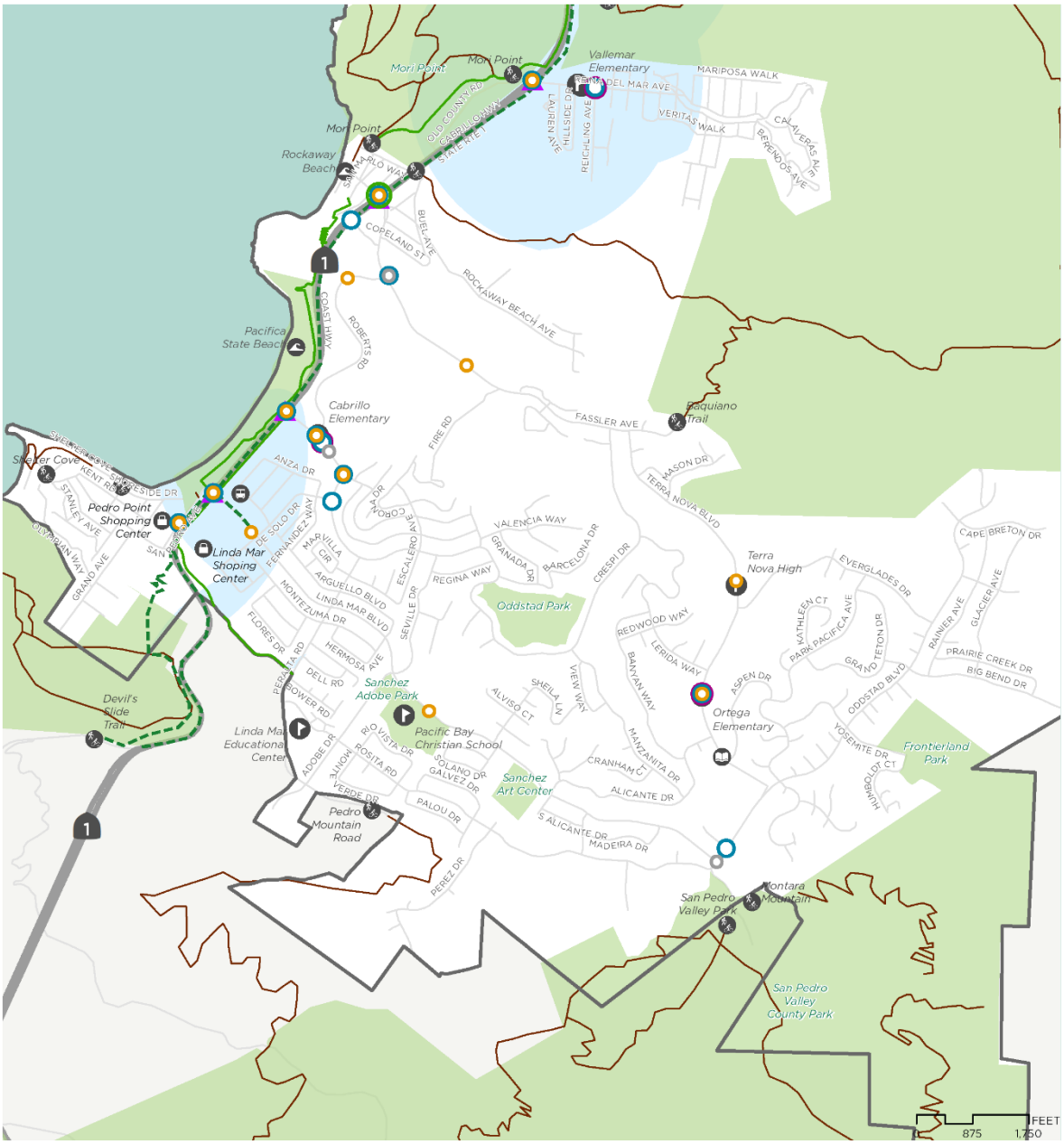
Boundaries + Destinations
- School
- Trailhead
- Park
- Pacifica City Boundary

TABLE 8: PEDESTRIAN RECCOMENDATIONS – VALLEMAR/FAIRWAY PARK PPA

LOCATION	RECOMMENDATIONS
Near Lundy/Cullen	Formalize trail connection between Cullen Road and Mori Ridge Road.
Mori Ridge/Highway 1	Install a crosswalk across Mori Ridge Road. (not a crossing of Highway 1). Complete in combination with Lundy/Cullen project.
Mori Point Road	Work with GGNRA formalize a dedicated pedestrian and bicycle path/trail between Highway 1 and the trailhead (through the parking area).
Reina Del Mar/Reichling	Install curb extensions to shorten crossing distances and implement other Safe Routes to Schools improvements.
Bradford/Highway 1 Tunnel	Improve access to the Highway 1 tunnel with raised crosswalks and other crossing improvements.
Lundy/Highway 1 Tunnel	Improve access to the Highway 1 tunnel with raised crosswalks and other crossing improvements.
Westport/Highway 1	Improve the crossing of Highway 1 by installing a Pedestrian Hybrid Beacon, curb extensions, median refuge island, lighting, and improved sidewalk connections around the crossing.
Reina Del Mar/Highway 1	Enhance pedestrian crossings, Calera Creek Trail access, and SamTrans access with crosswalk improvements, pedestrian refuge islands, and widened sidewalks.
Highway 1 Tunnel	Repair/build sidewalks and curb ramps around the tunnel. Install lighting and repaint the tunnel. Add wayfinding directing people to the tunnel.

The Highway 1 Tunnel, looking east from Bradford Way.

FIGURE 18: PEDESTRIAN RECOMMENDATIONS – LINDA MAR PPA



PEDESTRIAN RECOMMENDATIONS

LINDA MAR

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

alta PLANNING + DESIGN

Proposed Improvements

- Study
- Walking Envs. Enhancement
- Crossing Improvement
- School Area Improvement
- Signal Improvement
- Class I Shared-Use Path
- Ped Priority Area

Existing Facilities

- Class I Shared-Use Path
- Trail
- Highway 1 Crossing

Boundaries + Destinations

- Beach
- School
- Shopping
- Library
- Trailhead
- Linda Mar Park and Ride
- Park
- Pacifica City Boundary

TABLE 9: PEDESTRIAN RECOMMENDATIONS – LINDA MAR PPA

LOCATION	RECOMMENDATIONS
Rockaway/Fassler/Highway 1	Improve crossings of Highway 1 w/ high visibility crosswalks & curb extensions. Construct sidewalks on the west side of Highway 1 between Rockaway Beach & the SamTrans bus stop & between Fassler & Sea Bowl Lane on the east side. Work w/ Caltrans to remove slip lane from Rockaway Beach approach Work with Caltrans to study signal modifications to improve pedestrian conditions including leading pedestrian intervals and actuated no right turn on red. Mark the eastern approach of the intersection across Highway 1.
Sea Bowl Ln/Highway 1	Improve crossing of Sea Bowl Lane.
Crespi/Highway 1	Improve crossings with refreshed pavement markings and curb extensions. Widen the sidewalk on the northern side of Highway 1 between Ladera Way and Highway 1. Extend the physical barrier south from existing k-rails to the intersection. Consider decorating the k-rails for placemaking.
Linda Mar/Highway 1	Reconfigure the crosswalks to create more direct beach access, reducing unnecessary crossing stages. Additionally, add curb extensions and a pedestrian refuge island.
Crespi Drive	Widen the sidewalk on Crespi Drive between Ladera Way and Highway 1. Where width permits, add street furniture and transit amenities.
Crespi Drive at Cabrillo School	Enhance the existing crosswalk by adding curb ramps and updating the existing beacon to an RRFB. Bring the refuge island up to current ADA standards. A separate ongoing project will also add green infrastructure to this location.
Crespi/De Solo	Improve pedestrian crossings by installing curb extensions and enhancing crosswalks to high visibility.
Linda Mar Boulevard	Where sidewalk width allows, install transit amenities and street furniture along Linda Mar Boulevard.
Oddstad Boulevard/Toledo	Upgrade the existing crosswalk to a high visibility crosswalk and install an RRFB.
Linda Mar/Oddstad	Conduct a stop sign warrant study at Oddstad/Linda Mar and implement the appropriate strategy.
Ortega School SR2S	At Terra Nova/Lerida and Terra Nova/Alicante install curb extensions and advance stop markings.
Crespi/Roberts	Install curb extensions and advance stop markings.
Crespi/Ladera	Upgrade existing crosswalks to high visibility and install curb extensions and advance stop markings.
Linda Mar Boulevard	On the north side of Linda Mar, close the sidewalk gap between Seville Drive and Pacific Bay Christian School.
Fassler Avenue	Construct continuous sidewalks on one side of Fassler from Driftwood Circle to Highway 1.
Fassler/Roberts	Study crossing of Fassler at Roberts; factors should include sidewalk status along Fassler and Roberts.

LOCATION	RECOMMENDATIONS
Roberts Road	Continue sidewalks on Roberts Road to reach Fassler.
San Pedro Avenue/trail crossing	Install a high visibility crosswalk across San Pedro Avenue linking the currently proposed trail and shopping center. Consider installing an RRFB.
Terra Nova Boulevard	Install traffic calming on Terra Nova Boulevard.

There are no sidewalks or paths between Fassler/Rockaway Beach and Sea Bowl along Highway 1.

A family crossing Crespi Drive at Roberts Road.

WAYFINDING

NAVIGATIONAL ELEMENTS

The fundamental family of signs that provide bicyclists with navigational information consists of decision, confirmation, and turn signs; described in Figure 19 and Table 10. Figure 20 provides typical locations of signs. Decision signs (D) are located before an intersection of two routes. Turn signs (T) are located before turns. Confirmation signs (C) are located after the turn movement and periodically along routes for reassurance.

SIGNAGE TECHNICAL GUIDANCE

A variety of standards and guidelines influence both the designs and placement of wayfinding elements in Pacifica. The Manual of Traffic Control Devices (MUTCD) provides standards and guidelines for the design, size, and content of wayfinding signs. However, many jurisdictions have implemented unique signs to enhance visibility while reinforcing local identity.

BICYCLE GUIDE SIGNS

Both on-street and off-street bicycle facilities are required to follow the standards within the MUTCD. The State of California has adopted specific state standards for all traffic control devices called the CA MUTCD, which supersedes the MUTCD:

- D11-1: Bicycle Route Guide Sign
- D1-1b Destination Supplemental Sign
- M7-1 through M7-7 Directional Arrow Supplemental Sign

The combination of standard signs with modifications allows for signage that is consistent throughout Pacifica while branding the network.

COMMUNITY WAYFINDING

Community wayfinding signs allow for an expression of community identity, reflect local values and character, and may provide more information. California has not yet adopted MUTCD community wayfinding standards, but many communities use these.

TABLE 10: WAYFINDING SIGN TYPES

DECISION SIGN	CONFIRMATION SIGN	TURN SIGN
♦ Clarify route options when more than one is available ♦ Typically include a system brand ♦ Up to 3 destinations ♦ Distance in time or miles (based on 10 mph or 6 minutes per mile) ♦ FHWA standard size for 3 destinations is 18″ H x 30″ W ♦ Municipalities can modify, often 24″ W x 30″ or 36″ H, and place a bicycle symbol at the top ♦ Generally, 6″ of vertical space per destination ♦ Sign width not standardized by the CA MUTCD	♦ Placed after turn movement or intersection to reassure that they are on the correct route ♦ Standard D11-1 series signs, system brand mark, and route or pathway name may be included ♦ The minimum size of 24″ W x 18″ H should be used for bike route signs, both on and off-street	♦ Clarify a specific route at changes in direction ♦ Used when only one route option is available ♦ Standard D1-1 series sign: system brand mark, route or pathway name, and/or a directional arrow may be included ♦ A minimum of 6″ should be used for arrow plaque, the width may vary with destination length ♦ Standard turn arrows (M5 and M6 series) may be used to clarify movements

FIGURE 19: WAYFINDING SIGN ELEMENTS

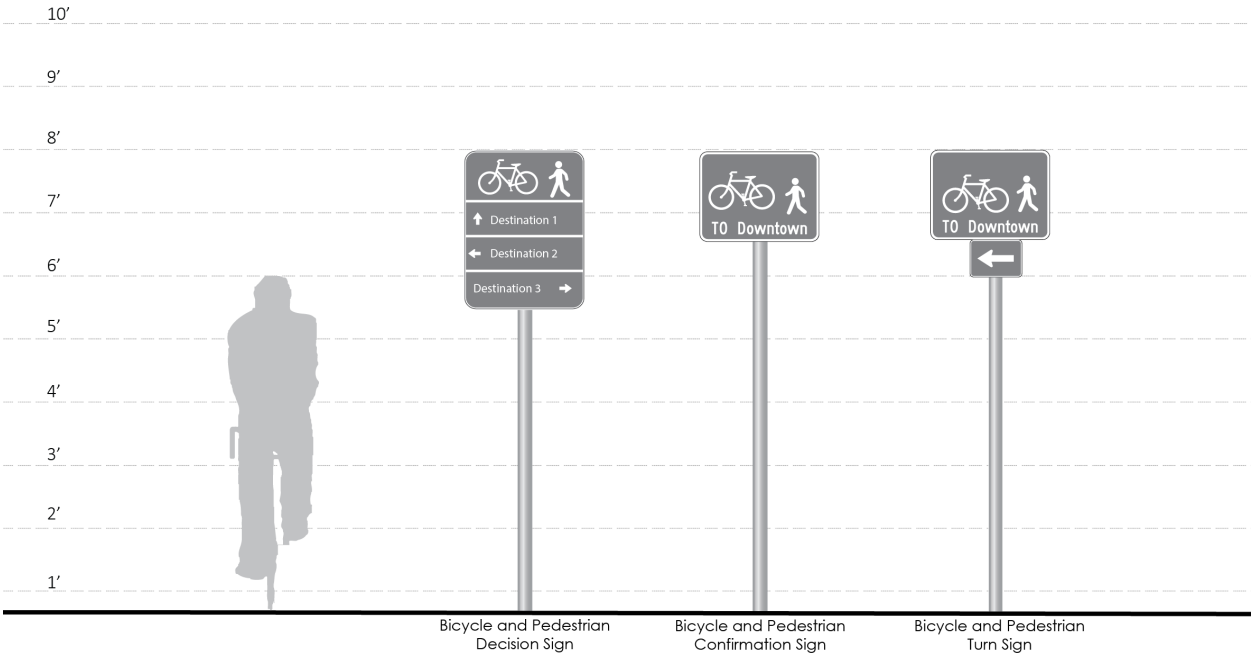
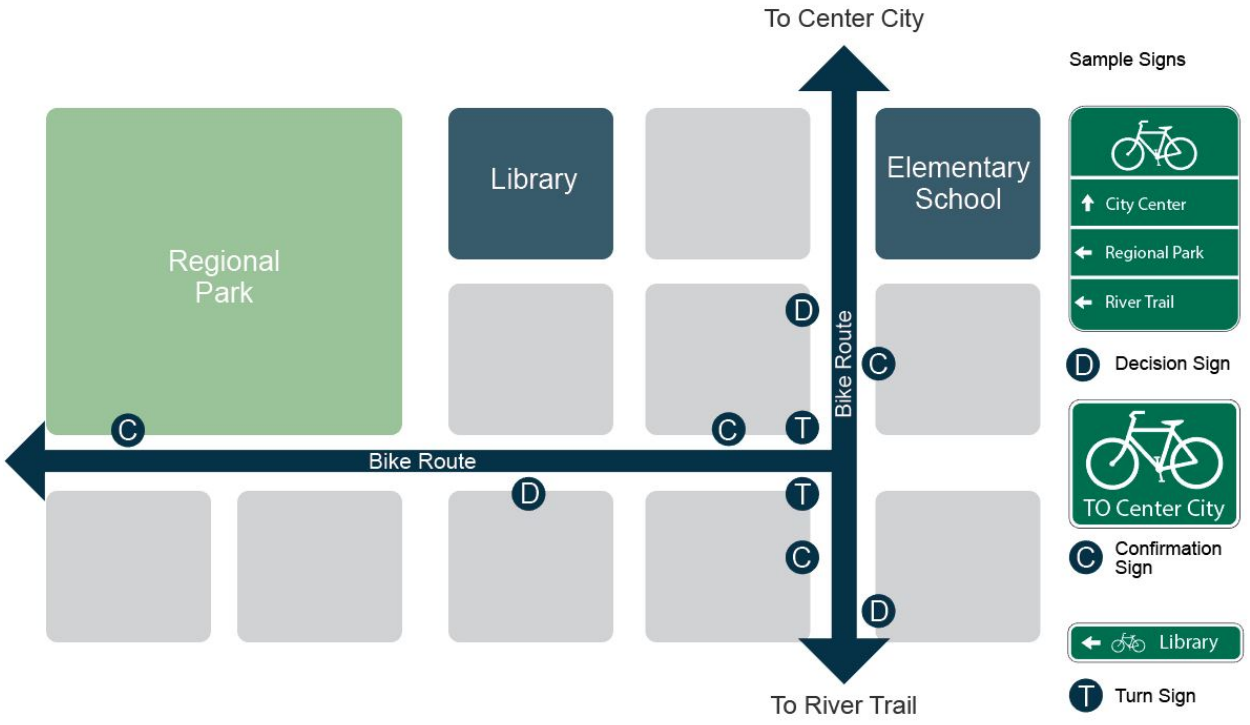


FIGURE 20: SIGN PLACEMENT DIAGRAM



OTHER WAYFINDING ELEMENTS

In addition to the core elements, several other wayfinding elements should be considered:

- **Distance and time** - Adding distance in familiar units can be a useful encouragement tool for bicycling and walking. Some cities include travel time.
- **Street name sign blades and sign toppers** - Some cities have enhanced street name sign blades to provide additional recognition of bikeways and major pedestrian routes.
- **Pavement markings** - Directional pavement markings indicate confirmation of bicycle or pedestrian presence on a designated route and can indicate turns. Pavement markings can often be more visible and can help supplement or reinforce signage.

RECOMMENDATION

It is recommended that Pacifica develop a citywide wayfinding program that offers guidance to destinations including downtown, schools, trails, the beach, landmarks, and civic buildings.

SIDEWALK INVENTORY

In addition to specific pedestrian improvements, Pacifica should conduct a sidewalk inventory to better understand where the gaps and broken segments are and to prioritize sidewalk construction and repairs.

BICYCLE PARKING

Bicycle parking is typically divided into short-term and long-term parking. Short-term parking is meant to accommodate bicyclists who park up to two hours, e.g., shoppers, post office customers, and library patrons. Long-term parking, such as bike lockers, is for riders who park over two hours, e.g., employees, students, and residents.

The City should work with local businesses, property owners, and open space agencies to install secure bicycle parking in or near major destinations across the city. The installation of bike racks is subject to the consideration of environmental, security, right-of-way, maintenance, and property owner factors.

Candidate locations for bike parking improvements include: Pacifica Pier, Pacific Manor Center, Mori Point, Linda Mar Center, parks, trailheads, and schools. Installation on private property is the responsibility of the property owner. The City may offer assistance and funding when available and appropriate.

BIKE RACKS

Bike racks provide short-term parking and are should accommodate visitors, customers, and others expected to depart within two hours. Racks should be an approved standard, with appropriate location/placement and weather protection.

BIKE CORRALS

On-street bike corrals (also known as on-street bicycle parking) consist of bicycle racks grouped together in a common area within the street traditionally used for automobile parking. Bicycle corrals are reserved exclusively for bicycle parking and provide a relatively inexpensive solution to providing high-volume bicycle parking. Bicycle corrals can be implemented by converting one or two on-street motor vehicle parking spaces into on-street bicycle parking. Each motor vehicle parking space can be replaced with approximately 6-10 bicycle parking spaces.

BIKE LOCKERS

A secure parking area for bicycles is a dedicated long-term bike parking facility, also referred to as Bike & Ride (when located at transit stations) and is a semi-enclosed space that offers a higher level of security than ordinary bike racks. Accessible via key-card, combination locks, or keys, these facilities provide high-capacity parking for 10 to 100 or more bicycles. Increased security measures create an additional transportation option for those whose most significant concern is theft and vulnerability.

HIGHWAY 1

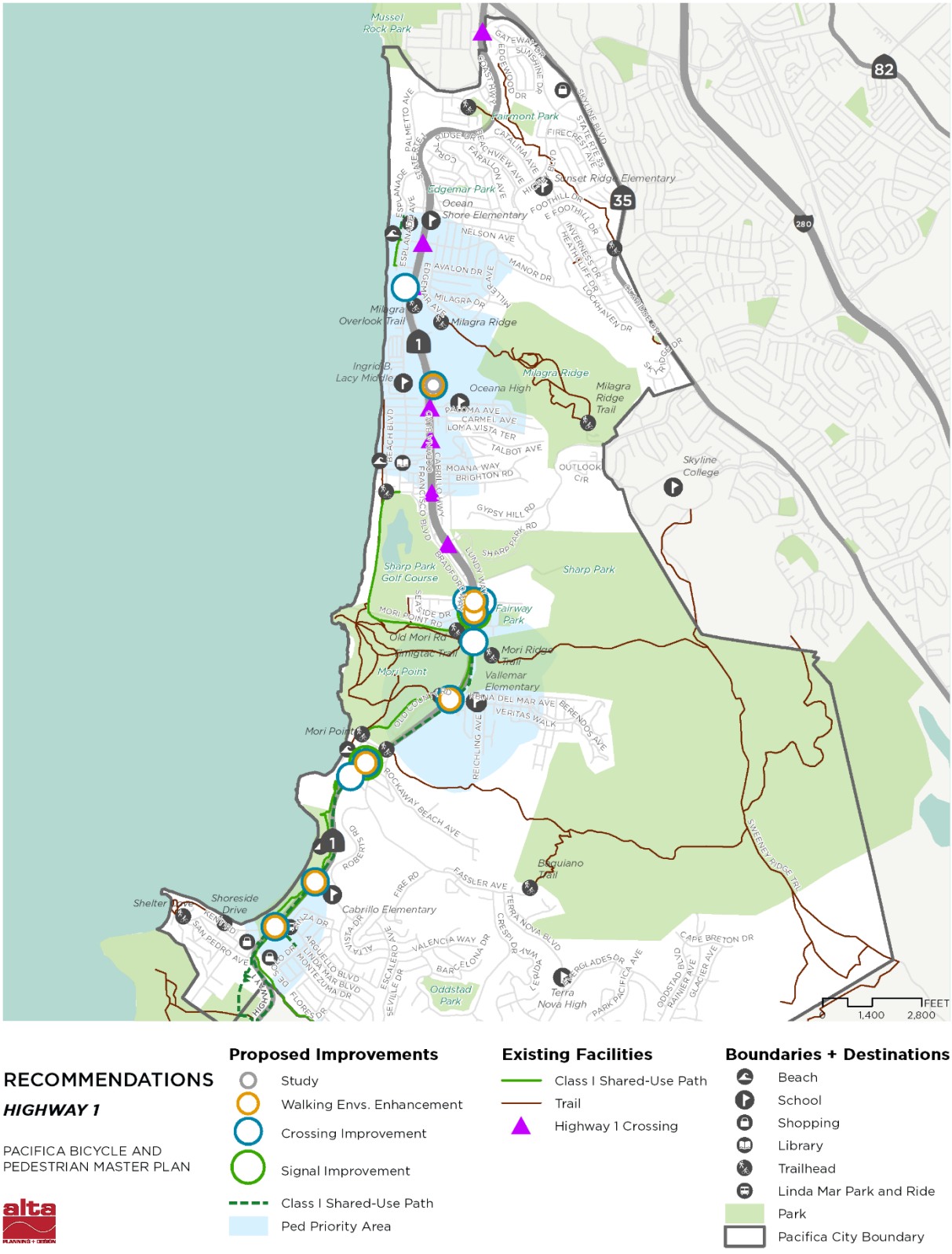
Highway 1 is a complicated, but critical corridor within Pacifica. To implement the proposed shared-use path recommendations, the City will need to complete a study to analyze the many constraints and opportunities to develop feasible alignment possibilities. The study will need to coordinate closely with Caltrans, GGNRA, and other important stakeholders. The crossing improvements recommended in this Plan will also need to be closely coordinated with Caltrans for approval, design, and implementation.

Figure 21 shows the pedestrian and bicycle recommendations that relate to Highway 1. Figure 22 provides an overview of some of the opportunities and constraints along the corridor.

Highway 1 south of Linda Mar Boulevard, looking north.

Highway 1 south of the Pacifica Police Station, highlighting the lack of non-vehicular access to the station.

FIGURE 21: HIGHWAY 1 RECOMMENDATIONS



RECOMMENDATIONS

HIGHWAY 1

PACIFICA BICYCLE AND PEDESTRIAN MASTER PLAN

alta PLANNING + DESIGN

Proposed Improvements

- Study
- Walking Envs. Enhancement
- Crossing Improvement
- Signal Improvement
- Class I Shared-Use Path
- Ped Priority Area

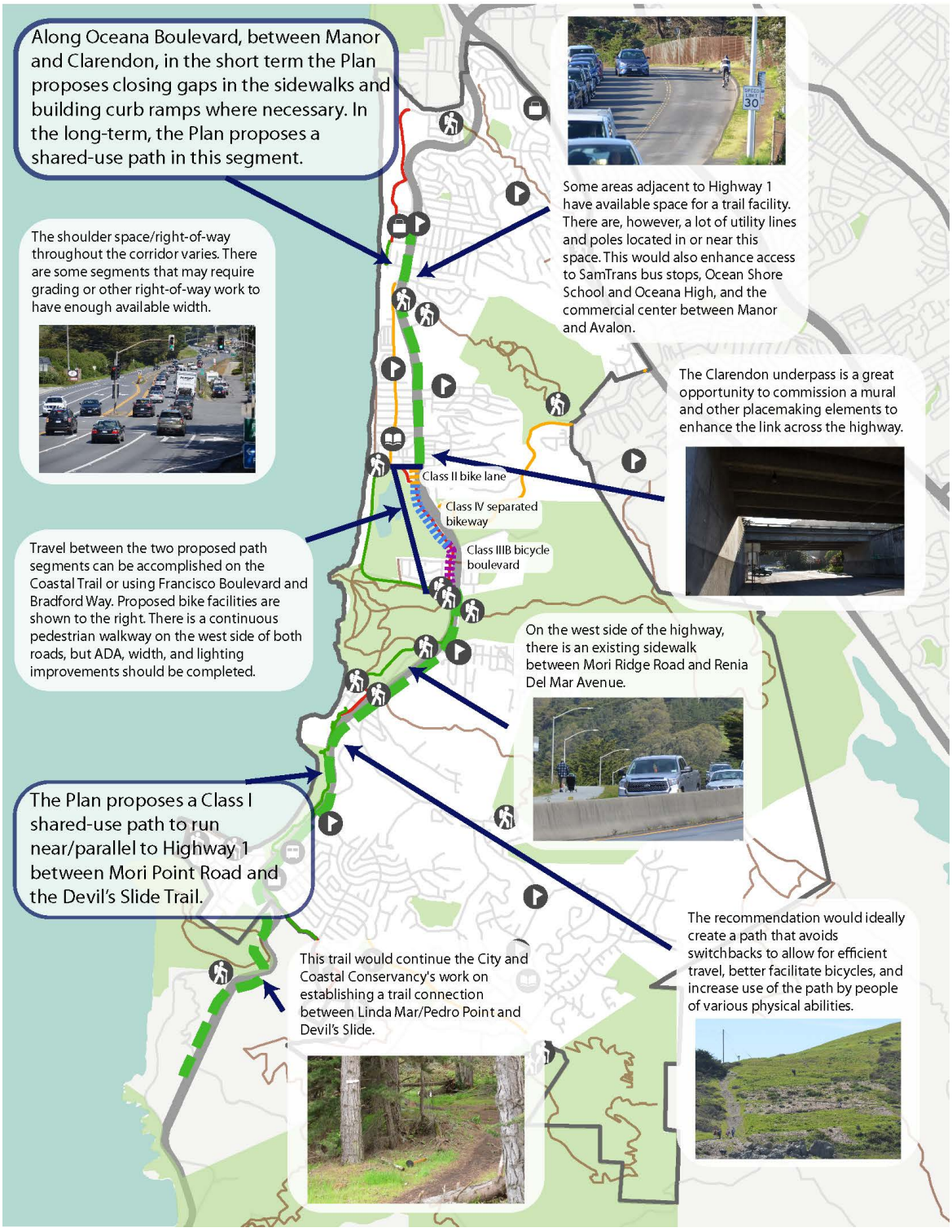
Existing Facilities

- Class I Shared-Use Path
- Trail
- Highway 1 Crossing

Boundaries + Destinations

- Beach
- School
- Shopping
- Library
- Trailhead
- Linda Mar Park and Ride
- Park
- Pacifica City Boundary

FIGURE 22: HIGHWAY 1 OPPORTUNITIES AND CONSTRAINTS



GREEN INFRASTRUCTURE

There are opportunities to allow streets to function as more than just public space and mobility corridors; streets can become a vital, functional component of the natural ecosystem. Green Infrastructure is catchall term that describes sustainable stormwater management practices and infrastructure. As urban landscapes have paved and built over green space, they have disrupted hydrological cycles and have required stormwater infrastructure to manage stormwater runoff and protect water quality[8]. Green stormwater infrastructure can reintroduce ecological functions back into the environment. Through strategies including biofiltration planters, bioretention swales, trees, and permeable pavement surfaces, more water can return to the ground and natural systems while reducing strain on existing water systems.

These stormwater strategies can be implemented in a range of transportation facilities including sidewalks and trails, planted buffers, curb extensions, medians, and landscaping projects. When reasonably feasible, all appropriate bicycle and pedestrian projects should be designed with green infrastructure techniques consistent with Pacifica's 2019 Green Infrastructure Plan. That Plan lays out Pacifica's goal to shift from conventional storm drain infrastructure to green infrastructure, consistent with the regional goals of the San Francisco Bay Regional Water Quality Board's Municipal Regional Permit. The goals include both reducing pollution and runoff associated with stormwater runoff, but also to return balance to natural systems by improving biological functioning of plants, soils, and other natural infrastructures.[9] These efforts are also consistent with ongoing efforts from San Mateo County and their Sustainable Streets Master Plan.

Newly installed green infrastructure along Palmetto Boulevard.

[8] NACTO Urban Street Stormwater Guide

[9] City of Pacifica Green Infrastructure Plan, 2019

ROAD DIETS

There are eleven bicycle recommendations that due to various roadway and environmental constraints will need additional study and public engagement before moving forward. In many of these cases, due to limited roadway width, a trade-off may be required to implement the proposed bicycle facility. A road diet is when a roadway is reconfigured with one or more fewer travel lanes to utilize that space for other uses and travel modes.

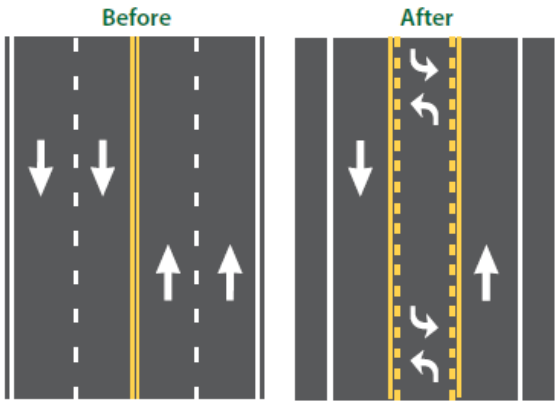
These roadway configurations offer many high-level benefits including enhanced safety, mobility, and access for all road users and creates a complete streets environment along the corridor. These benefits include:

- Crash reduction rates between 19-47%
- Reduced vehicle speeds
- Improved mobility and access for all road users
- Better integration of the roadway into surrounding land uses (FHWA)

Conflicts between high-speed through traffic, left turning vehicles and other road users that are more prevalent on traditional multilane roadways can lead to relatively higher crash frequencies compared to roadways that have been reconfigured. These reconfigurations allow cities to integrate additional pedestrian and bicycle facilities along these corridors.

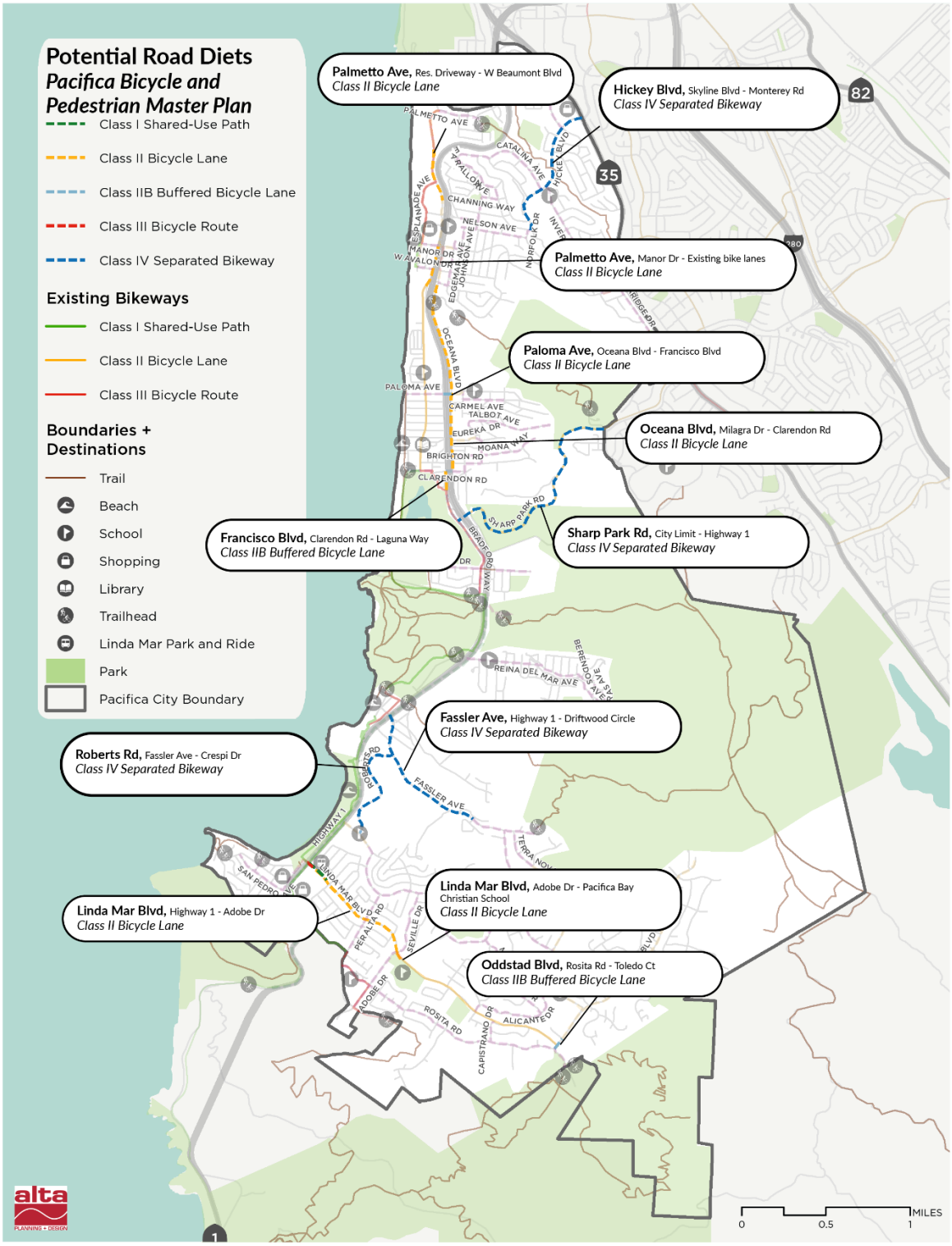
Right-sizing roads with excess space, can create a solution that addresses safety concerns and benefits for all road users. These reconfigurations can also be cost effective when combined with already planned roadway reconstruction or overlay (repaving and restriping) projects.

Figure 23 displays these 11 projects.



The above figure shows a typical 4 to 3 road diet. – Image: FHWA

FIGURE 23: ROAD DIET CORRIDORS



To accommodate the currently proposed bicycle facility, a trade-off with either vehicle parking or travel lanes may be required. The exact bicycle facility type, if any, and roadway design decisions will be made on a project-by-project basis. Each project will undergo the appropriate study(s) (parking occupancy, intersection, traffic counts, etc.) before moving forward for additional public comment and discussion.

PROGRAMS

This section describes the recommended bicycle and pedestrian-related programs for the City of Pacifica. The recommendations are organized in five E's:

EDUCATION

Education programs are designed to improve safety and awareness. They can include programs that teach students how to safely cross the street, or teach drivers where to anticipate bicyclists and how to share the road safely.

ENCOURAGEMENT

Encouragement programs provide incentives and support to help people leave their car at home and try walking or bicycling instead.

ENFORCEMENT

Enforcement programs enforce legal and respectful walking, bicycling, and driving. They include a variety of approaches, ranging from police enforcement to neighborhood signage campaigns.

EVALUATE

Evaluation programs are an essential component of any investment. They help measure success at achieving the goals of this Plan Update and to identify adjustments that may be necessary.

ENGINEERING

Engineering is reflected by the recommended infrastructure projects listed in this chapter. Given limited staff time and resources available, programs should be implemented or continued as funding and resources allow. Partnering with local organizations and other agencies is a crucial strategy to sustain program activity.

RECOMMENDED PROGRAMS

ONLINE INTERACTIVE ACTIVE TRANSORTATION WEB PORTAL – EDUCATION

This interactive web portal would educate Pacifica residents about the many benefits of active transportation, including greenhouse gas emission reductions, health benefits, and congestion benefits. The website would also provide maps and information about current walking and biking facilities within Pacifica and promote ongoing projects.

PUBLIC ART PROGRAM – ENCOURAGEMENT

Public art is a crucial component of placemaking and allows community members to help establish and reinforce a public identity. There are many opportunities for murals and public art in Pacifica, including Highway 1 underpasses and the physical barrier along Highway 1 near Crespi Drive. Public art projects can be coordinated through the Beautification Advisory Committee's Mural Subcommittee.

Part of the mural on the Oceana Boulevard side of Oceana High School.

SAFE ROUTES TO SCHOOLS – ENCOURAGEMENT. EDUCATION, AND ENFORCEMENT

The City should continue to work with the San Mateo County Safe Routes to School Program to provide programming to students at Pacifica public schools. SR2S programs can provide walking and biking education to students in addition to helping encourage more use of active and shared modes with walking school buses, bicycle trains, and student safety patrols/student valets. School areas can also be selected for target police enforcement to emphasize walking and bicycling safety around schools.

OPEN STREETS EVENTS- ENCOURAGEMENT

Open streets events are when streets are temporarily closed to vehicle traffic, and people can walk and bike all over the roadway. These events usually also have booths and vendors for attendees to visit.

ANNUAL REPORT CARD- EVALUATION

Annually or bi-annually survey households and students to gather more information about travel patterns and travel preferences. These surveys can help the City monitor the effectiveness of the programs as mentioned earlier and help better target future infrastructure improvements.

MICRO-MOBILITY AND SHARED-MOBILITY

MICRO-MOBILITY

Building a network of high-quality, connected, and safe bicycle facilities also benefits people on small-wheeled devices such as mobility scooters, skateboards, electric and non-electric scooters, roller skates, and tricycles. A bike network will help foster a more organized and predictable riding environment for all roadway users. Furthermore, implementing wider bicycle lanes, where feasible, provides space for users to safely and comfortably pass slower users (i.e. a bicyclist passing a skateboarder).

ELECTRIC MOBILITY DEVICES

With the growing popularity of e-bikes and e-scooters, a wider range of people are able to reach destinations that were once deemed too far or too difficult to reach. Regulations on e-bikes are found in the California Vehicle Code (CVC 312.5). On the other hand, the lack of statewide regulations for e-scooters allows individual jurisdictions the opportunity to set their own parameters for speed and other items.

Use of electric bicycles and other micromobility devices on trails is governed by the trail's owner/operator.

SHARED-MOBILITY

There are currently no formalized shared-mobility services, bikeshare, scooter-share, etc., within Pacifica. Should Pacifica be interested in developing a shared-mobility system, a separate study should be conducted to analyze potential users, trips, locations for dedicated stations and parking, funding/branding, and other items.

CHAPTER 6: IMPLEMENTATION

How does Pacifica prioritize and fund these projects?

This chapter describes the process for evaluating and funding project recommendations to help Pacifica prioritize projects that generate the highest value at the lowest cost.

PROJECT PRIORITIZATION

The following evaluation strategy reflects a systematic approach to determine each project's community benefit in a manner that is feasible, fundable, and sustainable.

METHODOLOGY

Projects will be sorted into four implementation categories based on the combined results of two evaluations: project priority and project feasibility.

PROJECT PRIORITY

The project priority evaluation places projects into one of two categories, "low" or "high" based on three criteria; each has its own scoring metrics:

- Enhance safety
- Connectivity
- Accessibility

Each metric scores 1 point if met. A maximum of seven points is possible; projects that score five or more points will be rated "high" and projects that score four or fewer points will be rated as "low." The criteria and scoring metrics are described below:

ENHANCED SAFETY

- Projects will score one point if located near (on the corridor for bicycle projects and at the same intersection for pedestrian projects) a bicycle-involved or pedestrian-involved collision (2013-2017).
- Projects will score one point if located on a street classified with an LTS 3 or 4.
    - Bikeway projects will score an additional point if the project is a Class I, Class IIB, Class IIIB, or Class IV recommendation.
    - Pedestrian projects will score an additional point if the project includes enhancements other than signage and striping (beacons, curb extensions, etc.)

CONNECTIVITY

- Projects will score one point if it improves connectivity across Highway 1.
- Projects will score one point if it closes a gap in the bicycle or pedestrian network.

ACCESSIBILITY

- Projects will score one point if it improves access to important community destinations (parks, schools, and trails).
- Pedestrian projects that include crossing enhancements near these destinations will score one additional point.
- Bikeway projects that provide new access to destinations (not upgraded facilities) will receive one additional point.

PROJECT FEASIBILITY

The project feasibility evaluation will categorize projects based on their complexity and high-level costs. Projects that only require signage, striping, or low-cost pedestrian items changes will be considered highly feasible. Projects that require interagency coordination require hardscape changes, or potential road diets (including parking removal) will be considered low-feasibility projects. A maximum of two points are available for project feasibility. A scoring breakdown is below:

COST

- Projects that only require signage and striping (Class II, Class IIB, Class III, Class IIIB, and some pedestrian crossing improvements – RRFB, paint-and-post curb extensions, crosswalks and other striping) will score one point.

COMPLEXITY

- Projects that will not require interagency coordination (not on GGNRA or Caltrans rights-of-way) or will not require a potential road diet will score one point.

Projects that receive two points will be considered highly feasible. Projects with zero or one point will be considered low-feasibility projects.

IMPLEMENTATION CATEGORIES

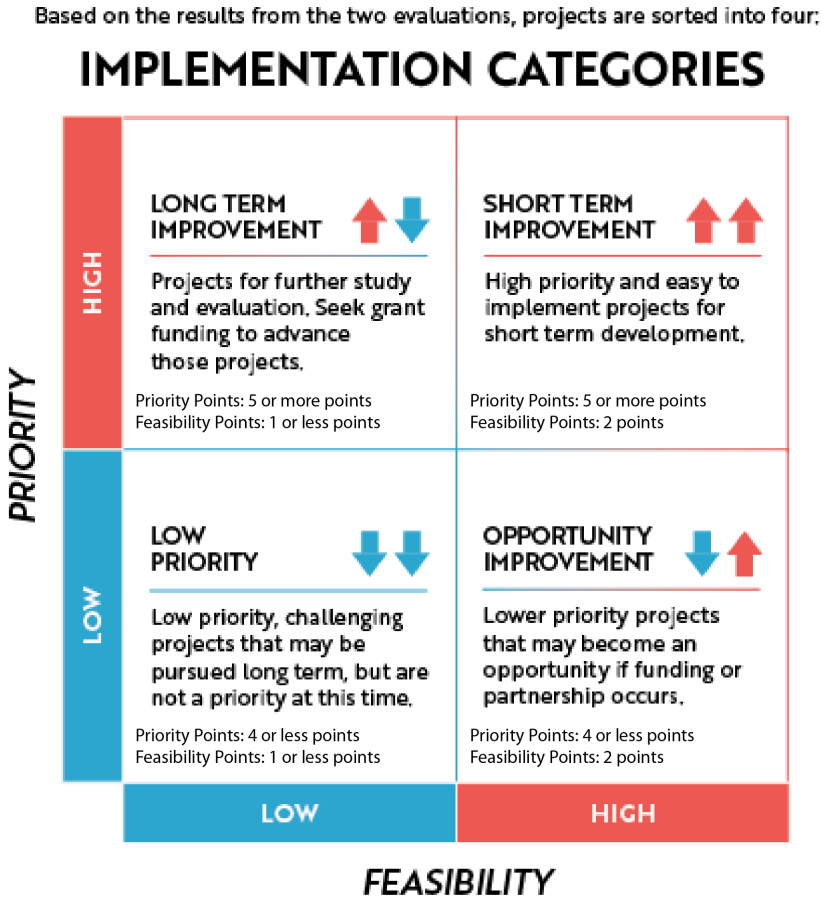
Based on the two evaluations above, projects are then placed into four categories:

- Long term improvements
- Short term improvements
- Low priority improvements
- Opportunity improvements

Projects can be ordered by combined point total within each category. See the graphic on the previous page. Descriptions of each category follow.

SHORT TERM

Short term improvement projects are rated high priority and high feasibility, and represent projects that could be pursued for implementation within the first three to five years.



LONG TERM

Long term improvement projects are rated high priority and low feasibility. They may require more study or analysis than short term projects, more significant interagency coordination, and/or additional funding for construction.

OPPORTUNITY

Opportunity improvements are those projects rated lower priority and high feasibility and may be pursued when nearby development or an overlapping project creates an opportunity to include these easy to implement projects.

LOW PRIORITY

Low priority improvements are those projects rated lower priority and low feasibility. They represent challenging projects that may not add significant value for a greater portion of the community walking or bicycling network on their own but are part of a long-term vision for active transportation.

TABLES

BICYCLE PROJECTS

Out of a maximum of nine possible priority points, the average project scored 4.07 points. No project received a score of 8 or 9, and the lowest score achieved was 2 points.

IMPLEMENTATION CATEGORIES (IMP. CATEGORIY):

- Short term: 3 Projects
- Opportunity: 37 projects
- Long term: 5 projects
- Low priority: 16 projects

Table 11 shows recommended bicycle projects with their priority points and implementation category.

TABLE 11: BICYCLE PROJECT PRIORITIZATION

STREET	START	END	CLASS	TOTAL POINTS	IMP. CATEGORY[10]
Crespi Bike Blvd			Class IIIB	7	Short Term Improvement
Highway 1	Mori Point Rd	Devil's Slide Trail	Class I	7	Long Term Project
Inverness Bike Blvd			Class IIIB	7	Short Term Improvement
Reina Del Mar Bike Blvd			Class IIIB	7	Short Term Improvement
Carmel/Mirador Bike Blvd.			Class IIIB	6	Opportunity Project
Crespi Dr	Highway 1	Shopping center driveway	Class II	6	Opportunity Project
Fassler/Terra Nova Bike Blvd			Class IIIB	6	Opportunity Project
Linda Mar Blvd	Shopping Center Driveway	Adobe Dr	Class II	6	Long Term Project
Linda Mar Park and Ride			Class I	6	Long Term Project

[10] The timeframe for implementing individual projects is at the discretion of the City. Projects may be pursued at any time, regardless of prioritization category.

STREET	START	END	CLASS	TOTAL POINTS	IMP. CATEGORY[10]
Rosita Bike Blvd			Class IIIB	6	Opportunity Project
Sharp Park Rd	City limit	Bradford Way	Class II	6	Opportunity Project
Terra Nova Blvd	Oddstad Blvd	Mason Dr	Class II	6	Opportunity Project
Allicante/Manzanita Bike Blvd			Class IIIB	5	Opportunity Project
Adobe/Seville Bike Blvd			Class IIIB	6	Opportunity Project
San Pedro Ave Trail	Linda Mar Blvd/Highway 1	Mid-block crossing	Class I	6	Long Term Project
Everglades Bike Blvd			Class IIIB	5	Opportunity Project
Farallon/Coral Ridge Bike Blvd			Class IIIB	5	Opportunity Project
Gateway Bike Blvd			Class IIIB	5	Opportunity Project
Hickey Blvd	Skyline Blvd	Monterey Rd	Class IV	5	Long Term Project
North Palmetto Bike Blvd			Class IIIB	5	Opportunity Project
Oceana Blvd	Milagra Dr	Clarendon Rd	Class II	5	Low Priority
Palmetto Ave	Westline Dr	Residential driveway	Class II	5	Opportunity Project
Palmetto Ave	W Beaumount Blvd	Manor Dr	Class II	5	Opportunity Project
Sharp Park Bike Blvd			Class IIIB	5	Opportunity Project
Linda Mar Blvd	Adobe Dr/Seville Dr	Pacific Bay Christian School	Class II	5	Low Priority
Bradford/Mori Ridge Bike Blvd			Class IIIB	4	Opportunity Project
East Manor Bike Blvd			Class IIIB	4	Opportunity Project
Esplanade Ave	Bill Drake Way	Manor Dr	Class II	4	Opportunity Project
Esplanade Ave	Manor Dr	W Avalon Dr	Class II	4	Opportunity Project
Linda Mar Blvd	Highway 1	Shopping Center Driveway	Class III	4	Low Priority

STREET	START	END	CLASS	TOTAL POINTS	IMP. CATEGORY[10]
Paloma Ave	Mirador Terrace	Oceana Blvd	Class II	4	Opportunity Project
Pedro Point Bike Blvd.			Class IIIB	4	Opportunity Project
Roberts Rd	Fassler Ave	Crespi Dr	Class IV	4	Low Priority
Bradford Way	Sharp Park Rd	Bradford Way bend	Class IV	3	Low Priority
Clarendon Bike Blvd.			Class IIIB	3	Opportunity Project
Clarendon Rd	Oceana Blvd	Francisco Blvd	Class IV	3	Low Priority
Fairway/Ridgeway Bike Blvd.			Class IIIB	3	Opportunity Project
Francisco Blvd	Laguna Way	Sharp Park Rd	Class IV	3	Low Priority
Humboldt/Yosemite Bike Blvd.			Class IIIB	3	Opportunity Project
Lerida Bike Blvd.			Class IIIB	3	Opportunity Project
Manor Dr	Edgemar Ave	Palmetto Ave	Class II	3	Opportunity Project
Manor Dr	Inverness Dr	Skyline Blvd	Class III	3	Opportunity Project
Oceana Blvd	Manor Dr	Avalon Dr	Class III	3	Opportunity Project
Oddstad Blvd	Park Pacifica Ave	End of street	Class II	3	Opportunity Project
Palmetto Ave	Residential driveway	W Beaumont Blvd	Class II	3	Low Priority
Palmetto Ave	Manor Dr	Existing facilities	Class II	3	Low Priority
Paloma Bike Blvd.			Class IIIB	3	Opportunity Project
Peralta Bike Blvd.			Class IIIB	3	Opportunity Project
San Pedro Ave	Highway 1	Road narrows	Class III	3	Opportunity Project
W. Avalon Bike Blvd.			Class IIIB	3	Opportunity Project
Clarendon Rd	Palmetto Ave	Beach Blvd	Class IV	2	Low Priority
Coastal Trail Expansion	Bill Drake Way	Manor Blvd	Class I	2	Low Priority

STREET	START	END	CLASS	TOTAL POINTS	IMP. CATEGORY[10]
Esplanade Ave	Palmetto Ave	Bill Drake Way	Class III	2	Opportunity Project
Eureka Dr	Tablot Ave	Oceania Dr	Class II	2	Opportunity Project
Fassler Ave	Highway 1	Driftwood Cir	Class IV	2	Low Priority
Francisco Blvd	Clarendon Rd	Laguna Way	Class II	2	Low Priority
Oceana Blvd	Avalon Dr	Milagra Dr	Class II	2	Opportunity Project
Oddstad Blvd	Rosita Rd	Toledo Ct	Class IIB	2	Low Priority
Oddstad Blvd	Toledo Ct	Park Pacifica Ave	Class II	2	Opportunity Project
Paloma Ave	Oceana Blvd	Francisco Blvd	Class IIB	2	Low Priority
San Pedro Ave-Shoreside Dr Connector	San Pedro Ave	Shoreside Dr	Neighborhood Path	2	Low Priority

TOP 14 BICYCLE PROJECTS

Fourteen projects scored 6 or 7 overall prioritization points. These fourteen projects range across three of the implementation categories (excludes low priority), allowing Pacifica to make progress on multiple fronts; working on short term and opportunity projects while continuing to analyze and work with agency partners on long term projects. The top 14 projects are listed below:

1. Crespi Drive bicycle boulevard project
2. Highway 1 trail from Mori Point to Devils Slide
3. Inverness Drive bicycle boulevard project
4. Reina Del Mar bicycle boulevard project
5. Carmel Avenue/Mirador Terrace bicycle boulevard project
6. Crespi Drive bike lanes
7. Fassler Avenue/Terra Nova Boulevard bicycle boulevard project
8. Linda Mar Boulevard bike lanes
9. Linda Mar Park-and-Park shared-use path
10. Rosita Road bicycle boulevard project
11. Sharp Park Road bike lanes
12. Terra Nova Boulevard bike lanes
13. Adobe Drive/Seville Drive bicycle boulevard project
14. San Pedro Avenue Trail

PEDESTRIAN PROJECTS

Out of a maximum of nine possible priority points, the average project scored 4.27 points. No project received a score of 7, 8, or 9 and the lowest score achieved was 1 point

IMPLEMENTATION CATEGORIES (IMP. CATEGORY):

- Short term: 0 Projects
- Opportunity: 22 projects
- Long term: 7 projects
- Low priority: 20 projects

Table 12 shows recommended pedestrian projects with their priority points and implementation category.

TABLE 12: PEDESTRIAN PROJECT PRIORITIZATION

PPA	LOCATION	RECOMMENDATION	TOTAL POINTS	IMP. CATEGORY [11]
Linda Mar	Rockaway/ Fassler/ Highway 1	Improve crossings of HWY 1 w/ high visibility crosswalks & curb extensions. Construct sidewalks on the north side of HWY 1 between Rockaway Beach & the SamTrans bus stop & between Fassler & Sea Bowl Lane on the south side. Work w/ Caltrans to remove slip lane from Rockaway Beach approach Work with Caltrans to study signal modifications to improve pedestrian conditions including leading pedestrian intervals and actuated no right turn on red. Mark the eastern approach of the intersection across HWY 1.	6	Long Term Project
Linda Mar	Linda Mar/ Highway 1	Reconfigure the crosswalks to create more direct beach access, reducing unnecessary crossing stages. Additionally, add curb extensions and a pedestrian refuge island.	6	Long Term Project
Linda Mar	Crespi Drive at Cabrillo School	Enhance the existing crosswalk by adding curb ramps and updating the existing beacon to an RRFB. Bring the refuge island up to current ADA standards.	6	Opportunity Project
Linda Mar	Oddstad/ Toledo	Upgrade the existing crosswalk to a high visibility crosswalk and install an RRFB.	6	Opportunity Project
Linda Mar	Ortega School SR2S	At Terra Nova/Lerida and Terra Nova/Alicante install curb extensions and advance stop markings.	6	Opportunity Project
Linda Mar	Crespi/Roberts	Install curb extensions and advance stop markings.	6	Opportunity Project
Linda Mar	Linda Mar Boulevard	On the north side of Linda Mar, close the sidewalk gap between Seville Drive and Pacific Bay Christian School.	6	Long Term Project
Manor	Monterey Road Mid-block Crossing	Reposition the mid-block crosswalk to a better location and add a rectangular rapid flashing beacon.	6	Opportunity Project
Manor	Manor Drive/ Manor Plaza	Install a pedestrian actuated flashing beacon for the crossing of Manor Drive.	6	Opportunity Project
Manor	Manor/ Esplanade	Improve crossings of Esplanade Avenue with crosswalks and a pedestrian rectangular rapid flashing beacon.	6	Opportunity Project
Sharp Park	Paloma/ Francisco - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.	6	Opportunity Project

[11] The timeframe for implementing individual projects is at the discretion of the City. Projects may be pursued at any time, regardless of prioritization category.

PPA	LOCATION	RECOMMENDATION	TOTAL POINTS	IMP. CATEGORY [11]
Sharp Park	Paloma/ Oceana - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.	6	Opportunity Project
Sharp Park	Paloma/ Mirador - Oceana High School	Implement Safe Routes to Schools improvements around Oceana High School, including high visibility crosswalks and curb extensions on Paloma Avenue.	6	Opportunity Project
Vallemar/ Fairway Park	Mori Ridge/ Highway 1	Install a crosswalk across Mori Ridge Road.	6	Opportunity Project
Vallemar/ Fairway Park	Reina Del Mar/Reichling	Install curb extensions to shorten crossing distances and implement other Safe Routes to Schools improvements.	6	Opportunity Project
Linda Mar	San Pedro Avenue mid-block	Install a high visibility crosswalk across San Pedro Avenue linking the currently proposed trail and shopping center. Consider installing an RRFB.	6	Long Term Project
Manor	Esplanade Ave, south of Bill Drake Way	Add a mid-block crossing at the end of the Coastal Trail. Install with advance yield pavement markings and signs.	5	Opportunity Project
Linda Mar	Sea Bowl Ln/ Highway 1	Improve crossing of Sea Bowl Lane.	5	Low Priority
Linda Mar	Crespi/ Highway 1	Improve crossings with refreshed pavement markings and curb extensions. Widen the sidewalk on the northern side of Highway 1 between Ladera Way and Highway 1. Extend the physical barrier south from existing k-rails to the intersection. Consider decorating the k-rails for placemaking.	5	Long Term Project
Manor	Highway 1 Milagra Drive Pedestrian Crossing	Improve crossing conditions and SamTrans access with additional pavement markings and a pedestrian actuated flashing beacon. The Palmetto Avenue Highway 1 ramp and crosswalk should be reconfigured to improve pedestrian safety.	5	Long Term Project
Manor	Ocean Shore School	Improve pedestrian crossing infrastructure around Ocean Shore School to facilitate Safe Routes to Schools.	5	Opportunity Project
Manor	Manor/ Palmetto & Manor/Oceana	Upgrade/refresh all crosswalks to high visibility crosswalks. Install advance stop markings.	5	Opportunity Project
Vallemar/ Fairway Park	Reina Del Mar/Highway 1	Enhance pedestrian crossings, Calera Creek Trail access, and SamTrans access with crosswalk improvements, pedestrian refuge islands, and widened sidewalks.	5	Long Term Project

PPA	LOCATION	RECOMMENDATION	TOTAL POINTS	IMP. CATEGORY [11]
Linda Mar	Crespi/De Solo	Improve pedestrian crossings by installing curb extensions and enhancing crosswalks to high visibility.	4	Opportunity Project
Linda Mar	Linda Mar Boulevard	Where sidewalk width allows, install transit amenities and street furniture along Linda Mar Boulevard.	4	Low Priority
Linda Mar	Linda Mar/Oddstad	Conduct a stop sign warrant study at Oddstad/Linda Mar and implement the appropriate strategy.	4	Low Priority
Linda Mar	Crespi/Ladera	Upgrade existing crosswalks to high visibility and install curb extensions and advance stop markings.	4	Opportunity Project
Linda Mar	Fassler/Roberts	Study crossing of Fassler at Roberts; factors should include sidewalk status along Fassler and Roberts.	4	Low Priority
Sharp Park	Beach/Paloma	Improve coastal access by enhancing crossings of Beach Boulevard.	4	Opportunity Project
Sharp Park	Beach/Santa Maria	Improve coastal access by enhancing crossings of Beach Boulevard.	4	Opportunity Project
Sharp Park	Beach/San Jose	Improve coastal access by enhancing crossings of Beach Boulevard.	4	Opportunity Project
Sharp Park	Beach/Clarendon	Improve coastal access by enhancing crossings of Beach Boulevard.	4	Opportunity Project
Vallemar/ Fairway Park	Westport/ Highway 1	Improve the crossing of Highway 1 by installing a Pedestrian Hybrid Beacon, curb extensions, median refuge island, lighting, and improved sidewalk connections around the crossing.	4	Low Priority
Linda Mar	Fassler Avenue	Construct continuous sidewalks on one side of Fassler from Driftwood Circle.	3	Low Priority
Linda Mar	Terra Nova Boulevard	Install traffic calming on Terra Nova Boulevard.	3	Low Priority
Manor	Milagra/ Oceana	Enhance pedestrian crossing infrastructure at this intersection.	3	Opportunity Project
Manor	Oceana Boulevard	Sidewalk improvements/construction between Milagra and Avalon.	3	Low Priority
Sharp Park	Oceana Boulevard	In the short term, fill in sidewalk gaps, mark crosswalks, and install curb ramps along Oceana Boulevard. In the long term, create a shared-use path throughout the corridor.	3	Low Priority
Sharp Park	Clarendon/ Lakeview	Redesign the intersection to facilitate safer, more predictable pedestrian movements. Other improvements include flashing beacons and high visibility crosswalks.	3	Low Priority

PPA	LOCATION	RECOMMENDATION	TOTAL POINTS	IMP. CATEGORY [11]
Vallemar/ Fairway Park	Near Lundy/Cullen	Formalize trail connection between Cullen Road and Mori Ridge Road.	3	Low Priority
Vallemar/ Fairway Park	Bradford/ Highway 1 Tunnel	Improve access to the Highway 1 tunnel with raised crosswalks and other crossing improvements.	3	Low Priority
Vallemar/ Fairway Park	Lundy/ Highway 1 Tunnel	Improve access to the Highway 1 tunnel with raised crosswalks and other crossing improvements.	3	Low Priority
Vallemar/ Fairway Park	Highway 1 Tunnel	Repair/build sidewalks and curb ramps around the tunnel. Install lighting and repaint the tunnel.	3	Low Priority
Linda Mar	Crespi Drive	Widen the sidewalk on Crespi Drive between Ladera Way and Highway 1. Where width permits, add street furniture and transit amenities.	2	Low Priority
Linda Mar	Roberts Road	Continue sidewalks on Roberts Road to reach Fassler.	2	Low Priority
Sharp Park	Clarendon Road along the golf course	Work with SFPUC to construct a dedicated pedestrian path along the golf course.	2	Low Priority
Vallemar/Fa irway Park	Mori Point Road	Work with GGNRA formalize a dedicated pedestrian and bicycle path/trail between Highway 1 and the trailhead (through the parking area).	2	Low Priority
Sharp Park	Coastal Trail, south of Clarendon	Bring enhancements and amenities to the Coastal Trail, south of Clarendon Road. Improvements include surface treatment upgrades and amenities like benches and lighting.	1	Low Priority
Sharp Park	Coastal Trail, along Beach Boulevard	Bring enhancements to the existing trail, including pavement markings to delineate modes (bikes and pedestrians) and lighting.	1	Low Priority

TOP 16 PEDESTRIAN PROJECTS

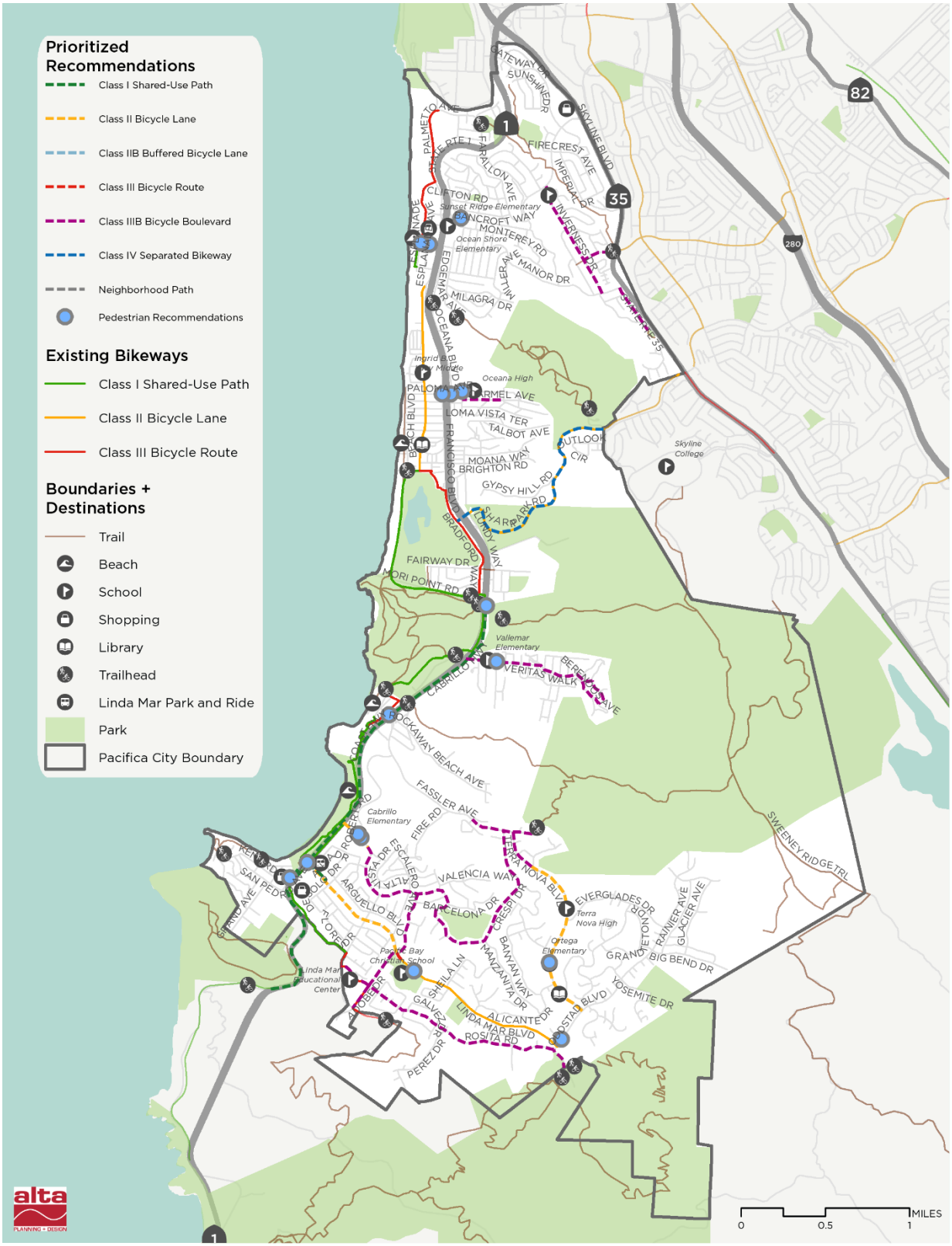
Sixteen projects scored 6 overall prioritization points. These fifteen projects are all either opportunity projects or long term projects. Three of these projects involve crossings of Highway 1 and eight of the projects are near schools. The top 16 project locations are listed below:

1. Rockaway Beach Boulevard/Fassler Avenue/ Highway 1
2. Linda Mar Boulevard/Highway 1
3. Crespi Drive at Cabrillo School
4. Oddstad Boulevard/Toledo Court
5. Ortega School
6. Crespi Drive/Roberts Road
7. Linda Mar Boulevard near Pacific Bay Christian School
8. Monterey Road midblock crossing near Ocean Shore School
9. Manor Drive at Manor Plaza
10. Manor Drive/Esplanade Avenue
11. Paloma Avenue/Francisco Boulevard – Oceana HS
12. Paloma Avenue/Oceana Avenue – Oceana HS
13. Paloma Avenue/Mirador Terrace – Oceana HS
14. Mori Ridge Road
15. Reina Del Mar Avenue/Reichling Avenue
16. San Pedro Avenue mid-block crossing

Figure 24 highlights the top 14 bicycle and 16 pedestrian projects across Pacifica.

Looking east from the Roackway Beach Boulevard side of the Highway 1 crossing.

FIGURE 24: PRIORITY BICYCLE AND PEDESTRIAN PROJECTS



FUNDING

FUNDING STRATEGIES

LOCAL AND REGIONAL FUNDING SOURCES

MEASURE A

The Pedestrian and Bicycle Program of Measure A provides funding to projects that improve bicycling and walking accessibility and safety in San Mateo County, helping to encourage more residents to participate in active transportation. Three (3) percent of Measure A funds are dedicated to pedestrian and bicycle facilities. Funds are distributed through a competitive call for projects process; calls occur biennially.

Funds are programed by the San Mateo County Transportation Authority (SMCTA).

MEASURE M

Passed in 2010, Measure M imposes an annual fee of $10 on motor vehicles registered in San Mateo County for transportation-related traffic congestion and water pollution mitigation programs. Half of the funds are allocated to cities/County for local streets and roads. The other half is allocated for countywide programs, including safe routes to schools, transit, congestion management, and others.

Countywide funds are programmed by the City/County Association of Governments of San Mateo County (C/CAG).

MEASURE W

San Mateo County voters passed Measure W in 2018; a half-cent sales tax for transportation in San Mateo County. SamTrans administers half of Measure W funds, which go towards public transportation. SMCTA manages the other half. Of that fifty (50) percent, five (5) percent is allocated for bicycle and pedestrian projects. SMCTA is still finalizing project evaluation criteria for money that they allocate. These funds are only available for non-paving uses when the City's Pavement Condition Index is above 70. Pacifica is currently below that threshold.

Funds are programmed by SamTrans and SMCTA.

TRANSPORTATION FUNDS FOR CLEAN AIR

Money in the Transportation Funds for Clean Air program, established by Assembly Bill 434, is generated by a $4 vehicle registration surcharge in the nine Bay Area counties. The funds may be used on projects that reduce vehicle emissions, including bicycle and pedestrian projects, and can also be used as a match for competitive state or federal programs.

Funds are programmed by the Bay Area Air Quality Management District (BAAQMD) and C/CAG.

BICYCLE FACILITIES GRANT PROGRAM

Throughout the nine-county Bay Area, the Bicycle Facilities Grant program strives to reduce emissions from on-road vehicles and improve air quality by helping residents and commuters shift modes to bicycling and walking as alternatives to driving for short distances and first-and-last mile trips. BAAQMD has grant programs that fund both on-street facilities and bicycle parking facilities.

Funds are programmed by the BAAQMD.

ONE BAY AREA GRANT

The program emphasizes funding for projects within Priority Development Areas in the region that are in-line with housing and land-use goals.

Funds are programmed by the Metropolitan Transportation Commission (MTC) and C/CAG.

TRANSPORTATION DEVELOPMENT ACT ARTICLE 3

Transportation Development Act Article 3 (TDA 3) provides funding annually for bicycle and pedestrian projects. Two percent of TDA funds collected within the county are used for TDA 3 projects. Metropolitan Transportation Commission policies require that all projects be reviewed by a BPAC or similar body before approval.

Funds are programmed by C/CAG.

REGIONAL MEASURE 3

Regional Measure 3 uses toll revenue from the Bay Area's seven state-owned toll bridges. The money from Regional Measure 3 funds a variety of highway and transit projects throughout the region.

Funds are programmed by MTC.

COMPETITIVE GRANT PROGRAMS

CALIFORNIA ACTIVE TRANSPORTATION PROGRAM

California's Active Transportation Program (ATP) funds infrastructure and programmatic projects that support the program goals of shifting trips to walking and bicycling, reducing greenhouse gas emissions, and improving public health. Competitive application cycles occur every one to two years, typically in the spring or early summer. Eligible projects include the construction of bicycling and walking facilities, new or expanded programmatic activities, or projects that include a combination of infrastructure and non-infrastructure components. Typically, no local match is required, though extra points are awarded to applicants who do identify matching funds.

Funds are programmed by the California Transportation Commission (CTC).

SUSTAINABLE TRANSPORTATION PLANNING GRANTS

Caltrans Sustainable Transportation Planning Grants are available to communities for planning, study, and design work to identify and evaluate projects, including conducting outreach or implementing pilot projects. Communities are typically required to provide an 11.47 percent local match, but staff time or in-kind donations are eligible to be used for the match provided the required documentation is submitted.

Funds are programed by Caltrans.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

Caltrans offers Highway Safety Improvement Program (HSIP) grants every one to two years. Projects on any publicly owned road or active transportation facility are eligible, including bicycle and pedestrian improvements. HSIP focuses on projects that explicitly address documented safety challenges through proven countermeasures, are implementation-ready, and demonstrate cost-effectiveness.

Funds are programmed by Caltrans. Solutions for Congested Corridors Program

Funded by SB1, the Congested Corridors Program strives to reduce congestion in highly-traveled and congested through performance improvements that balance transportation improvements, community impacts, and environmental benefits. This program can fund a wide array of improvements including bicycle facilities and pedestrian facilities. Eligible projects must be detailed in an approved corridor-focused planning document. These projects must include aspects that benefit all modes of transportation using an array of strategies that can change travel behavior, dedicate right of way for bikes and transit, and reduce vehicle miles traveled.

Funds are programmed by the CTC.

OFFICE OF TRAFFIC SAFETY

Under the Fixing America's Surface Transportation (FAST) Act, five percent of Section 405 funds are dedicated to addressing nonmotorized safety. These funds may be used for law enforcement training related to pedestrian and bicycle safety, enforcement campaigns, and public education and awareness campaigns.

Funds are programmed by the California Office of Traffic Safety.

RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program helps provide recreational trails for both motorized and nonmotorized trail use. Eligible products include trail maintenance and restoration, trailside and

trailhead facilities, equipment for maintenance, new trail construction, and more.

Funds are programmed by the California Department of Parks and Recreation.

AFFORDABLE HOUSING AND SUSTAINABLE COMMUNITIES PROGRAM

The AHSC program funds land-use, housing, transportation, and land preservation projects that support infill and compact development that reduces greenhouse gas emissions. Projects must fall within one of three project area types: transit-oriented development, integrated connectivity project, or rural innovation project areas. Fundable activities include affordable housing developments, sustainable transportation infrastructure, transportation-related amenities, and program costs.

Funds are programmed by the Strategic Growth Council and implemented by the Department of Housing and Community Development.

CULTURAL, COMMUNITY AND NATURAL RESOURCES GRANT PROGRAM – PROPOSITION 68

Proposition 68 authorizes the legislature to appropriate $40 million to the California Natural Resources Agency to protect, restore, and enhance California's cultural, community, and natural resources. One type of eligible project that this program can fund are projects that develop future recreational opportunities including creation or expansion of trails for walking, bicycling, and/or equestrian activities and development or improvement of trailside and trailhead facilities, including visitor access to safe water supplies.

Funds are programmed by the California Natural Resources Agency.

URBAN GREENING GRANTS

Urban Greening Grants support the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Projects must include one of three criteria, most relevantly: reduce commute vehicle miles travels by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. Eligible projects include green streets and alleyways and non-motorized urban trails that provide safe routes for travel between residences, workplaces, commercial centers, and schools.

Funds are programmed by the CA NRA.

OTHER STATE FUNDS

SENATE BILL 1: LOCAL PARTNERSHIP PROGRAM

This program provides local and regional agencies that have passed sales tax measures, developer fees or other transportation-imposed fees to fund road maintenance and rehabilitation, sound walls, and other transportation improvement projects. Jurisdictions with these taxes or fees are then eligible for a formulaic annual distribution of no less than $100,000. These jurisdictions are also eligible for a competitive grant program. Local Partnership Program funds can be used for a wide variety of transportation purposes including roadway rehabilitation and construction, transit capital and infrastructure, bicycle and pedestrian improvements, and green infrastructure.

Funds are programmed by CTC.

SENATE BILL 1: ROAD MAINTENANCE AND REHABILITATION PROGRAM

Senate Bill 1 created the Road Maintenance and Rehabilitation Program (RMRP) to address deferred maintenance on state highways and local road systems. Program funds can be spent on both design and construction efforts. On-street active transportation-related maintenance projects are eligible if program maintenance and other thresholds are met. Funds are allocated to eligible jurisdictions.

Funds are programmed by the State Controller's Office.

TABLE 13: FUNDING SOURCES BY PROJECT TYPES

FUNDING SOURCE	ON-STREET BIKEWAYS	TRAILS	SAFE ROUTES TO SCHOOL	SAFE ROUTES TO TRANSIT	CROSSINGS/ INTERSECTIONS	PROGRAMS	STUDIES
Local and Regional Programs							
Measure A	●	●	●	●	●		
Measure M	●		●		●		
Measure W	●	●	●	●	●		
Transportation Funds for Clean Air (C/CAG & BAAQMD)	●	●	●	●	●		
Bicycle Facilities Program (BAAQMD)	●	●	●	●			
One Bay Area (MTC & C/CAG)	●	●	●	●			
Transportation Development Act, Article 3 (C/CAG)	●	●	●	●	●		
Regional Measure 3 (MTC)				●			
Competitive Grant Programs							
Active Transportation Program (CTC)	●	●	●	●	●	●	
Sustainable Transportation Planning Grants (Caltrans)							●
Highway Safety Improvement Program (Caltrans)	●		●	●	●		
Solutions for Congested Corridors (CTC)	●	●			●		
Office of Traffic Safety (CA OTS)						●	

FUNDING SOURCE	ON-STREET BIKEWAYS	TRAILS	SAFE ROUTES TO SCHOOL	SAFE ROUTES TO TRANSIT	CROSSINGS/ INTERSECTIONS	PROGRAMS	STUDIES
Recreational Trails Program (CA DPR)		●					
Affordable Housing & Sustainable Communities (CA HCD)	●			●		●	
Cultural, Community, and Natural Resources (CA NRA)		●					
Urban Greening Grants (CA NRA)	●	●	●	●			
Other State Funds							
Local Partnership Program (CTC)	●		●	●	●		
Road Maintenance and Rehabilitation Program (Controller's Office)	●		●	●			

INTERAGENCY COORDINATION

As previously mentioned, some of the recommendations in the Plan are on the right-of-way of agencies other than the City of Pacifica like Caltrans, San Francisco Public Utilities Commission, or Golden Gate National Recreational Area. These projects will need to be carefully coordinated with the appropriate stakeholder for planning, design, funding, and implementation purposes. While within city limits, as it is their property, the other agency would have final say over these projects.

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