SAN BENITO COUNTY
Bikeway and Pedestrian Master Plan

Prepared for:
Council of San Benito County Governments

Prepared by:
Alta Planning + Design

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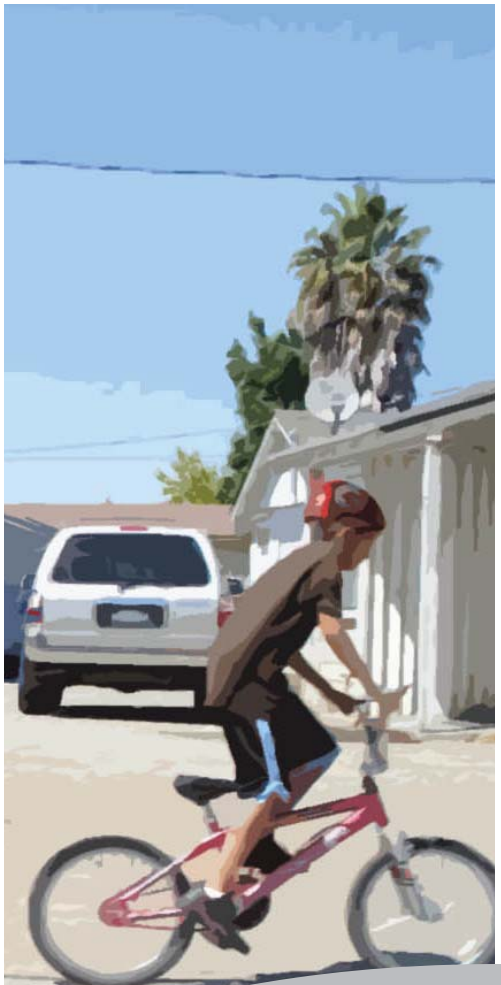

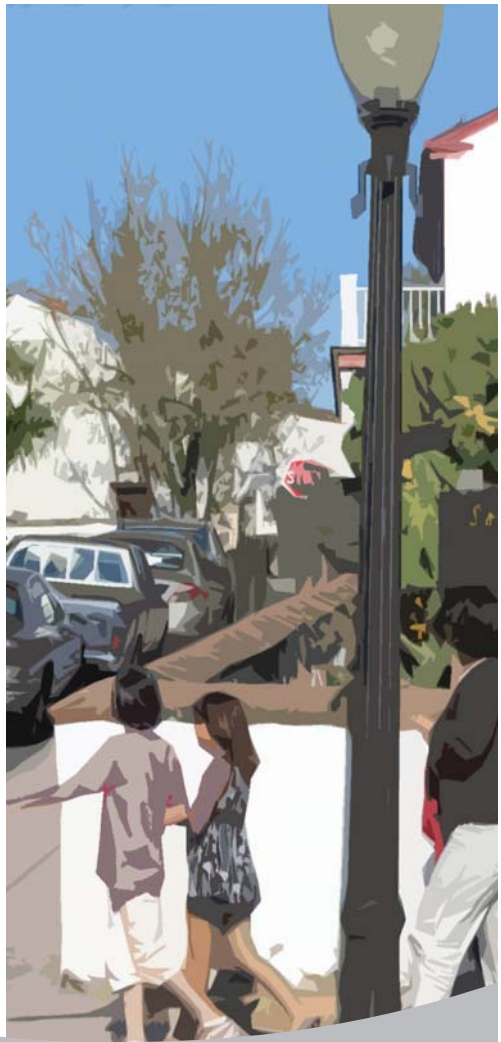

ACKNOWLEDGEMENTS

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Table of Contents

Tables

Figures

Executive Summary

The San Benito County Bikeway and Pedestrian Master Plan guides the future development of bicycle and pedestrian facilities within the County and seeks to meet the County's needs and desires for pleasant and safe places to bicycle and walk. This Plan was developed with input from the Council of San Benito County Governments (COG), the County of San Benito, the Cities of Hollister and San Juan Bautista, the Bicycle and Pedestrian Advisory Committee (BPAC), and members of the public.

Purpose of the Bikeway and Pedestrian Plan

This Plan is an update to the San Benito County Bikeway and Pedestrian Master Plan adopted in 2002 and was developed to build upon and enhance that plan. The purpose of this Plan is to expand the existing networks, connect gaps, address constrained areas, provide greater connectivity, educate, encourage, and to maximize funding sources. This Plan will satisfy requirements of the California Bicycle Transportation Account (BTA) and other state and federal funding programs that California Department of Transportation oversees and reviews.

Biking and Walking in San Benito County Today

Approximately 0.6 percent of employed residents in San Benito County commute by bicycle. This rate is slightly higher than the national average bicycle commute mode share of 0.4 percent. The existing San Benito County bikeway network consists of a system of approximately eight miles of bike lanes and over two miles of bike routes. The existing pedestrian facilities reflect the rural nature of the county and are often lacking or incomplete. Building on the existing biking and walking network, this Plan helps ensure good connectivity between cities, develop joint projects where needed, and formulate consistent design standards. To the extent feasible, this Plan has incorporated existing local plans and priorities as part of its recommendations.

Public Outreach

The public outreach for the Plan included two public meetings, with 44 and 30 attendees, respectively, and the formation of a BPAC. The BPAC and public identified the following needs and recommendations, which have been incorporated into the projects and programs in the following chapters.

- Class I path along the San Benito River
- Class I paths connecting cities and towns
- Class II bike lanes connecting community destinations such as schools, parks, and libraries
- Bikeway maintenance
- Motorist education
- Encouragement and education programs for children

- Short-term bicycle parking at commercial activity centers
- Pedestrian facilities at railroad crossings
- Sidewalk continuity
- Curb ramps at intersections

In addition, a bicycle and pedestrian survey was administered to gather use and preferences in the area. Over 100 community members participated in the survey.

Recommendations

The San Benito County Bikeway and Pedestrian Master Plan outlines a range of recommendations developed to reflect public input, existing conditions, and future plans. The recommendations include bicycle and pedestrian infrastructure improvements, safety and education programs, funding and implementation strategies, and design and policy recommendations. These recommendations are outlined below.

Bicycle Infrastructure Improvements

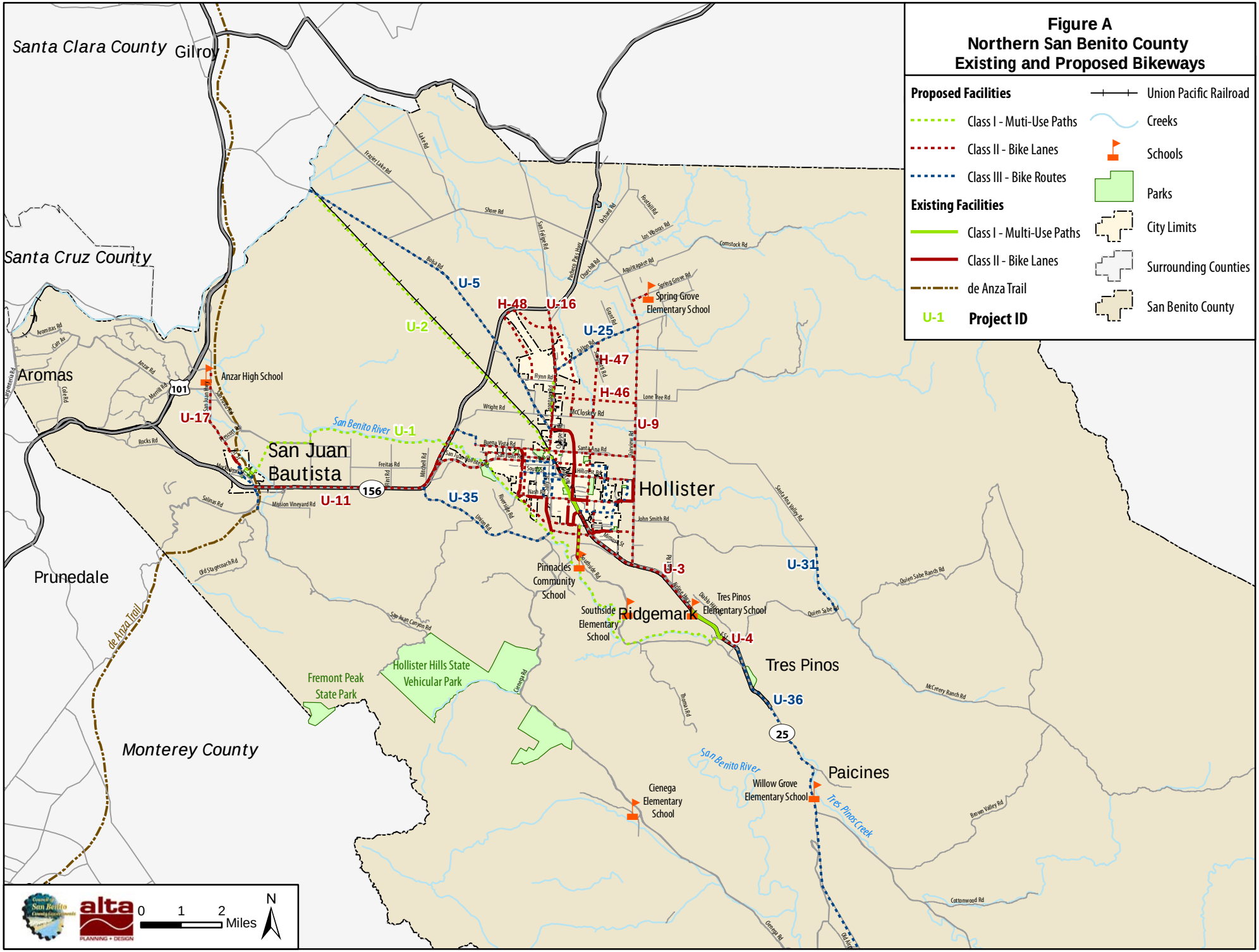
The recommended bicycle facilities are intended to fill in gaps within the current bicycle network, to continue the expansion of the existing network, to improve existing routes, and to improve access between residential neighborhoods and the current bikeway network. The final recommended network includes a system of bikeways that are approximately one-quarter (1/4) mile apart in urbanized areas. These bikeways will connect residential areas of San Benito County with schools, parks, community centers, downtowns, and other destinations. **Table A** lists the miles of each class of existing and proposed bikeways. **Figures A** through **E** show the bikeway network.

Table A: Existing and Proposed Bikeways

Bikeways	Class I Bike Paths	Class II Bike Lanes	Class III Bike Routes	Total
Existing	2.29	8.12	0.00	10.41
Proposed	27.67	58.62	51.41	137.70
Total	29.96	66.74	51.41	148.11

Pedestrian Infrastructure Improvements

The recommended pedestrian infrastructure improvements are intended to enhance pedestrian access and help pedestrians feel more comfortable when walking in San Benito County. A number of recommendations are infrastructure projects that should be implemented on a broad countywide basis. These projects are divided into several categories of improvements: sidewalk gaps, signalized intersections, unsignalized crosswalks, curb ramps, safe routes to school, multi-use paths, and maintenance. Following the countywide project recommendations, a number of specific project recommendations are identified. These improvements identify locations for sidewalk gap infill projects, and installation of crosswalks, pedestrian countdown signals, curb extensions, and curb ramps. The recommendations include thirteen sidewalk gap closures and improvements at fourteen intersections and seven railroad crossings. **Figures F a**nd **G** show pedestrian improvements.



Source: San Benito County and ESRI.

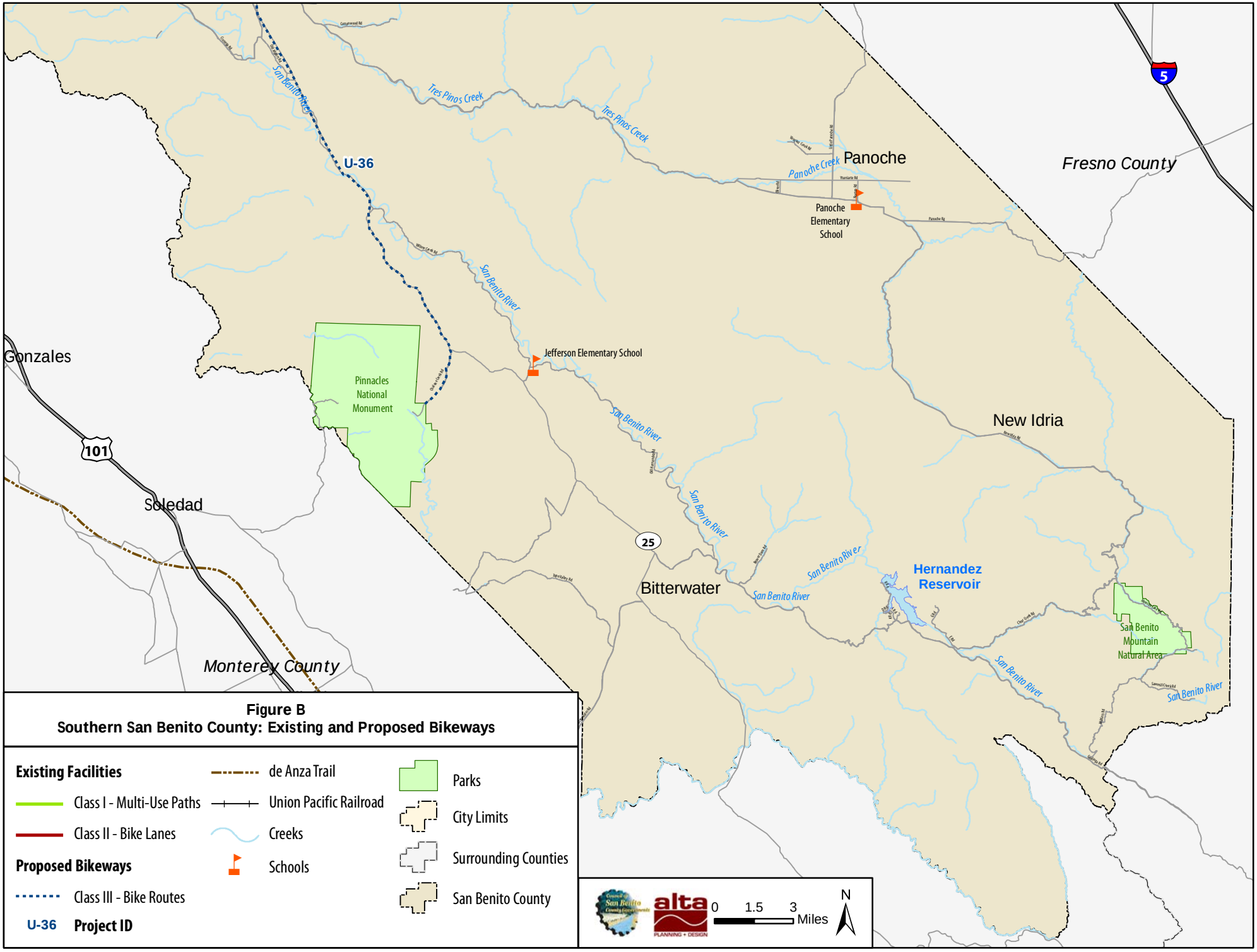


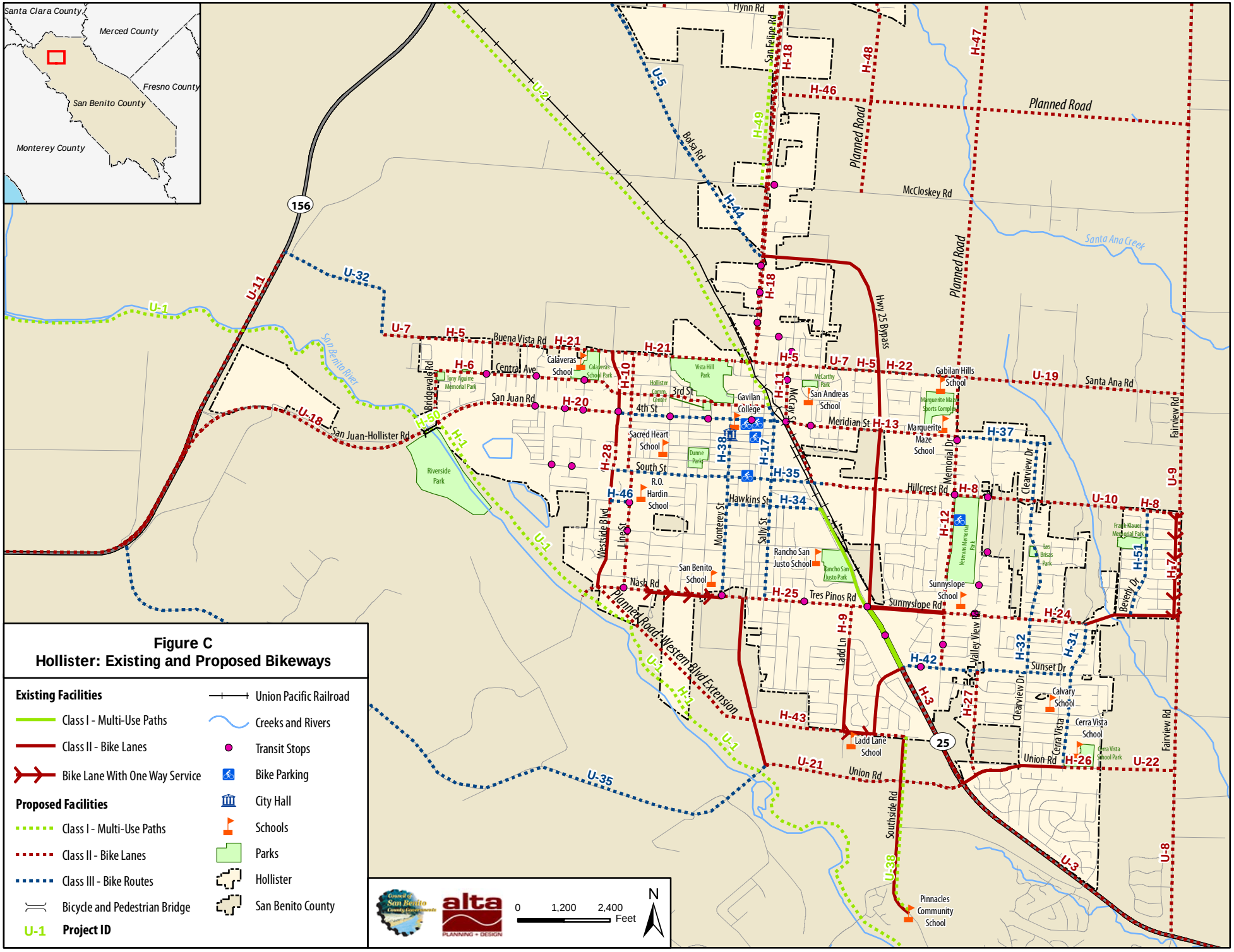
Figure B
Southern San Benito County: Existing and Proposed Bikeways

Existing Facilities
- Class I - Multi-Use Paths
- Class II - Bike Lanes

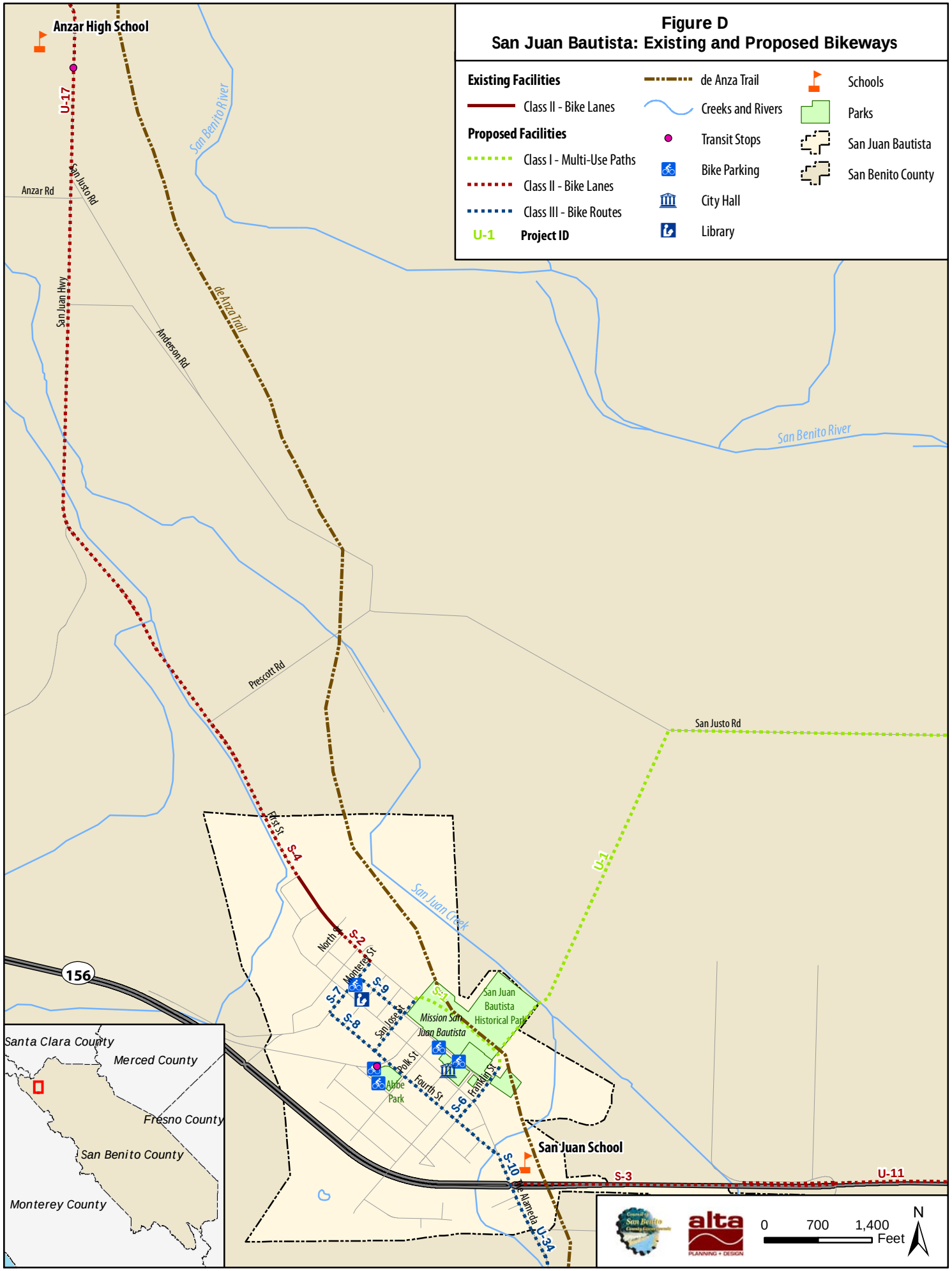
Proposed Bikeways
- Class III - Bike Routes
- U-36 **Project ID**

- de Anza Trail
- Union Pacific Railroad
- Creeks
- Schools
- Parks
- City Limits
- Surrounding Counties
- San Benito County

Source: San Benito County and ESRI.



Source: County of San Benito and ESRI.



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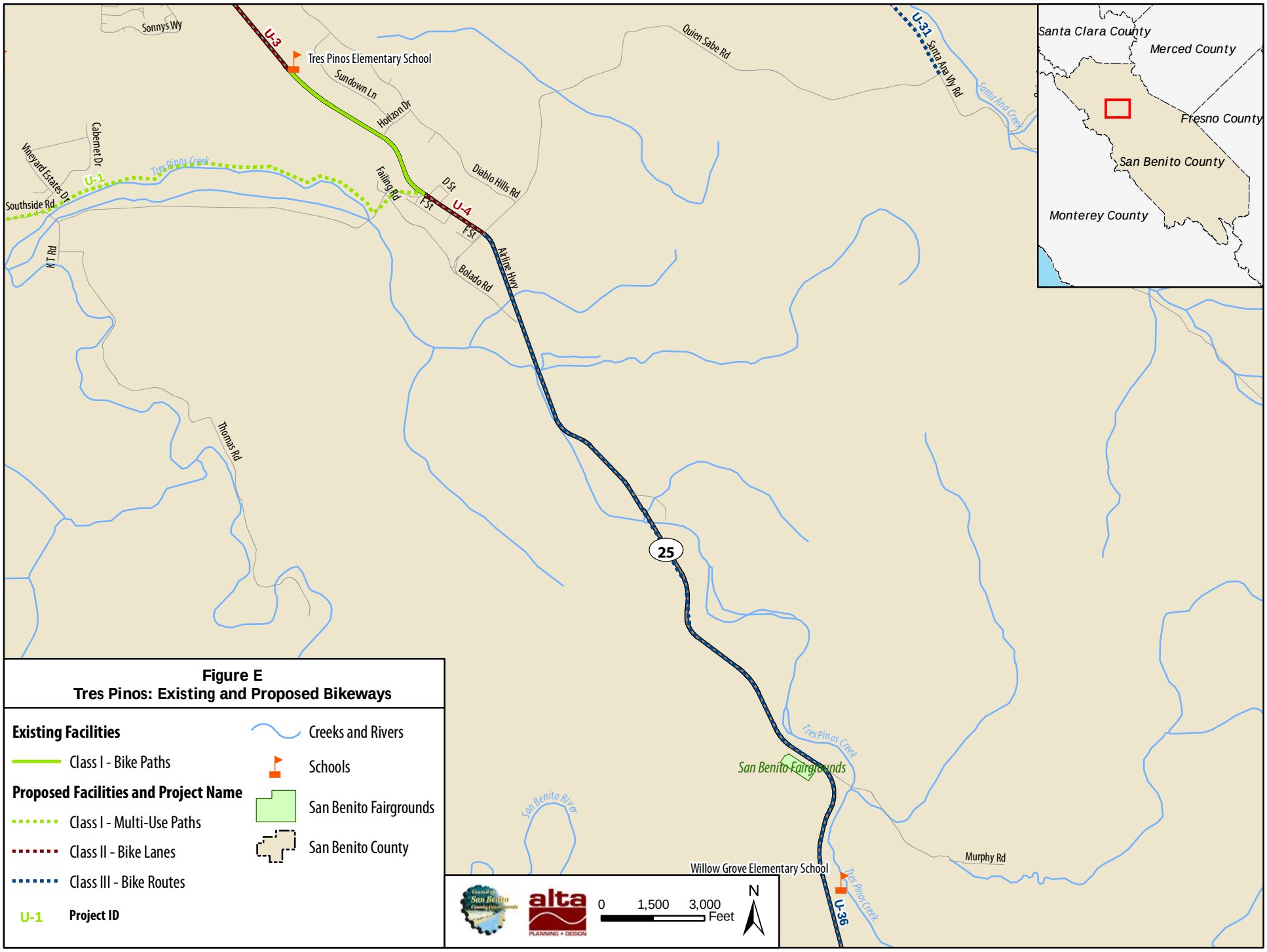

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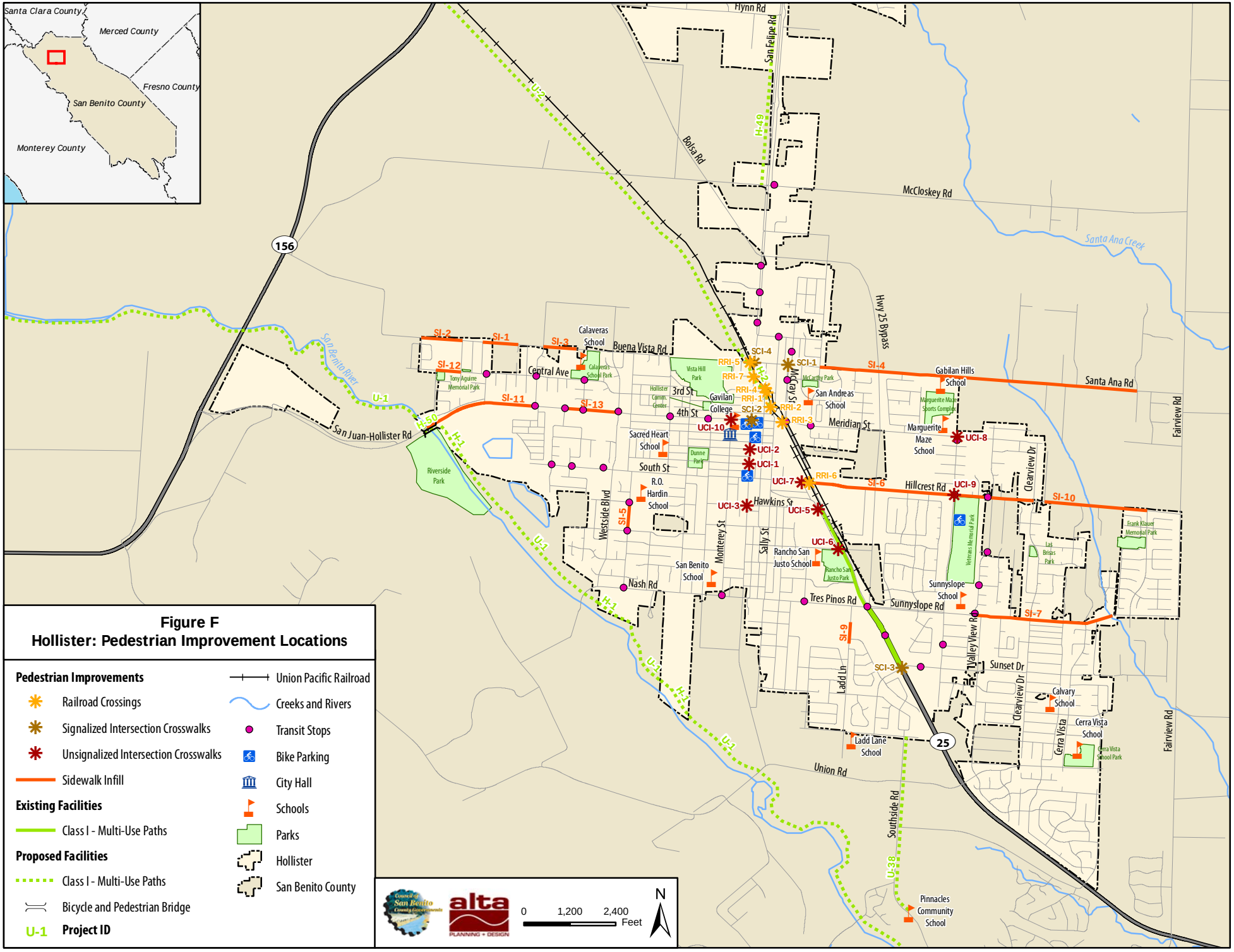

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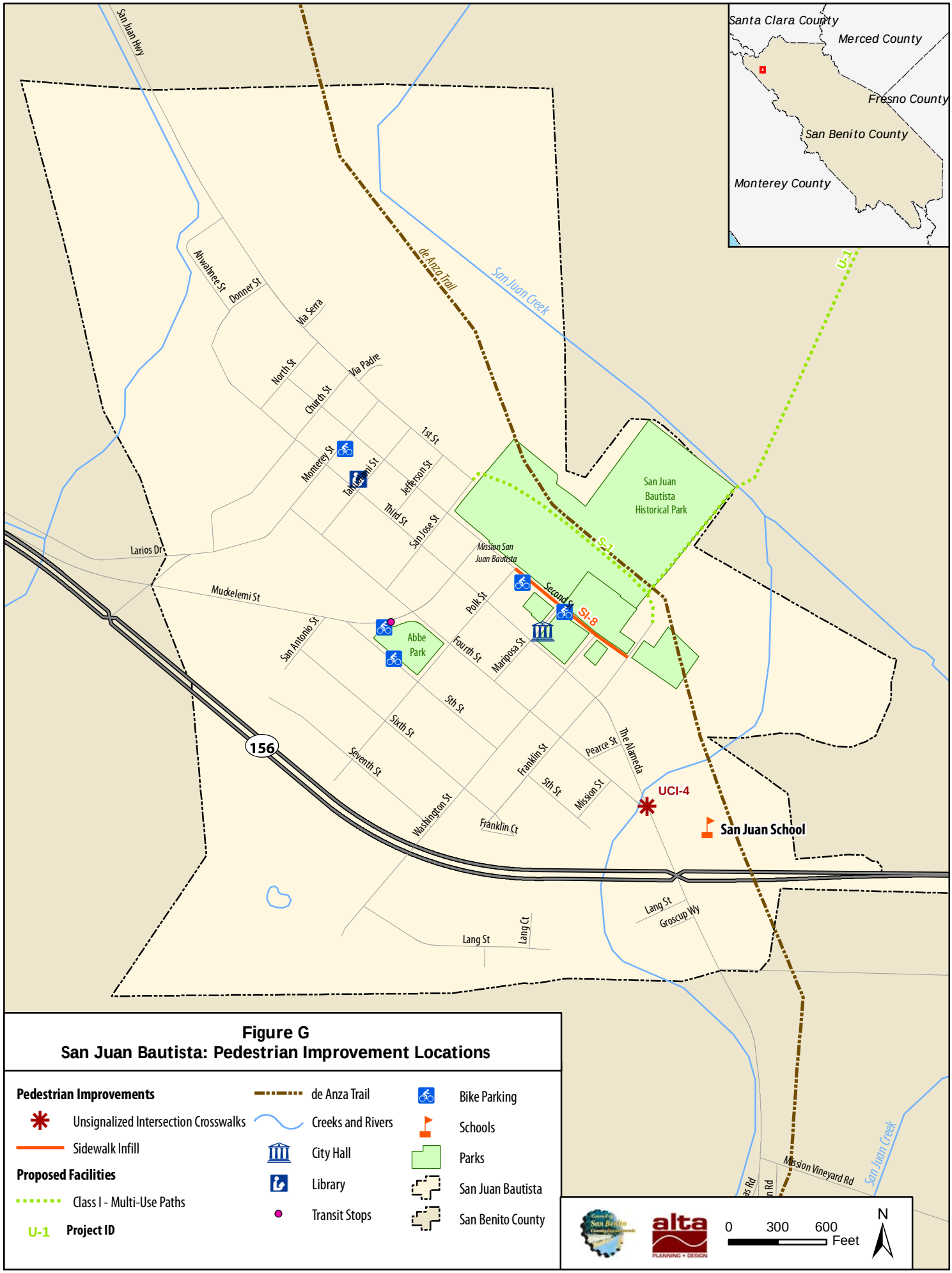


Figure G
San Juan Bautista: Pedestrian Improvement Locations

Pedestrian Improvements
- Unsignalized Intersection Crosswalks
- Sidewalk Infill

Proposed Facilities
- Class I - Multi-Use Paths
- U-1 **Project ID**

- de Anza Trail
- Creeks and Rivers
- City Hall
- Library
- Transit Stops
- Bike Parking
- Schools
- Parks
- San Juan Bautista
- San Benito County

Source: County of San Benito and ESRI.

Safety and Education Programs

In addition to the recommended bicycle and pedestrian infrastructure projects, the Plan recommends specific programs and policies intended to facilitate planning and designing for bicyclists and pedestrians. The recommendations include events and incentives to encourage people to bike and walk, education programs to teach students and adults bicycle safety, and outreach programs to promote safer interactions between drivers, bicyclists and pedestrians. Policy recommendations focus on modifications and additions that support the development of a Countywide non-motorized transportation network and encourages people to bike and walk more often.

Funding and Implementing the Plan

Bikeway Project Prioritization

Ranking criteria used for prioritization of implementation include connections to parks, major employment centers, schools, closure of gaps in the existing network, public input and safety. It was developed with input from the COG, BPAC and Technical Advisory Committee. The overall score for a project is the sum of individual criteria. Projects were placed into three phasing groups: Tier 1, Tier 2 and Tier 3. Tier 1 bikeway projects are the highest priority for completion and are intended for near-term implementation within 1-5 years. Tier 2 projects are intended for development within 6-10 years. Tier 3 projects are projects that are not currently ready to be implemented, but are included as long-term potential bicycle-specific projects over the next 11-20 years. **Table B** lists Tier 1 projects.

Table B: Tier 1 Projects

Rank	Class	Name	Project ID	From	To
1.	II	Sunnyslope Rd	H-24	Memorial Dr	Cerra Vista Dr
2.	II	Nash Rd/Tres Pinos Rd	U-13, U-14, H-14, H-25	East of San Benito River	Airline Hwy
3.	II	Airline Hwy	U-3, U-4, H-3	Sunset Dr	Quien Sabe Rd
4.	II	Central Ave-3rd St	H-6	Bridgevale Rd	East St
5.	III	South St/Hillcrest Rd	H-35, H-41	Westside Blvd	East of McCray St
6.	II	Ladd Ln	H-9	Tres Pinos Rd	Hillock Dr
7.	I	San Benito River Trail	U-1, H-1	San Juan Bautista Park	Airline Hwy
8.	III	Sally St	H-17	3rd St	Nash Rd
9.	II	Memorial Dr	H-12, H-47	Sunset Dr	Fallon Rd
10.	III	4th St	H-30	Westside Blvd	McCray St
11.	II	San Felipe Rd	U-16, H-18	Santa Ana Rd	Pacheco Pass Hwy
12.	II	Meridian St	H-13	Memorial Dr	McCray St
13.	II	Hillcrest Rd	U-10, H-8	Prospect Ave	Fairview Rd
14.	III	Sunset Dr	H-42	Cerra Vista Dr	Airline Hwy
15.	II	Westside Blvd	H-28, H-29	Apricot Ln	Jan Ave
16.	III	Monterey St	H-38	4th St	Nash Rd
17.	II	McCray St	H-11	Hillcrest Rd	Santa Ana Rd
18.	I	Bicycle and Pedestrian Bridge	H-50	San Benito River Bridge	San Benito River Bridge

Lists of bikeway projects and programs are flexible concepts that serve as guidelines for implementation. The Tier 1 project list should be reviewed by the COG, in conjunction with the Counties and Cities, on an annual basis to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bikeway network in a logical and efficient manner, and that the list takes advantage of all available funding opportunities and grant cycles. As projects are implemented and taken off the list, new projects should be moved up into Tier 1.

Cost Estimates

Construction of the recommended bicycle facilities will result in a total of more than 130 miles of new bikeway facilities. Pedestrian facility recommendations include thirteen sidewalk gap closures and improvements at fourteen intersections and seven railroad crossings. The total cost of constructing the recommended bicycle projects is estimated at $28.3 million dollars and the estimated cost of the pedestrian projects is estimated at approximately $3.6 million dollars over the Plan's 20-year period. **Table C** lists cost estimates for each project category.

Table C: Cost Summary of Proposed Improvements

Project Category	Cost
Tier 1 Bikeway Projects	$16,000,000
Tier 2 Bikeway Projects	$8,600,000
Tier 3 Bikeway Projects	$3,200,000
Sidewalk Gap Improvements	$1,500,000
Crosswalk Improvements (Signalized Intersections)	$300,000
Crosswalk Improvements (Unsignalized Intersections)	$900,000
Railroad Crossing Improvements	$1,100,000
Total	**$32,000,000**

Contents of the Bikeway and Pedestrian Plan

The Bikeway and Pedestrian Master Plan can be divided into three parts: Chapters 1-5, Chapters 6-10 and the Appendices. The first five chapters outline the existing bicycling and walking conditions in San Benito County. The last five chapters present recommendations to guide the future development of bicycling and walking in the County. The Appendices provide supporting information such as design guidelines for bicycle and pedestrian facilities, County land use maps, and the environmental review checklist.

The San Benito Bikeway and Pedestrian Plan contains the following chapters:

- **Chapter 1 – Introduction:** Sets the context for the Plan including purpose and structure.
- **Chapter 2 – Goals, Objectives, and Policy Actions:** Summarizes the goals, policies, and objectives guiding the implementation of the Plan, incorporating previous planning efforts.
- **Chapter 3 – Existing Conditions:** Provides a description of the existing bicycle and pedestrian conditions in San Benito County and cities. This chapter includes a map of

existing bikeways, descriptions of existing bicycle programs, and a discussion of existing pedestrian facilities.

- **Chapter 4 – Needs Analysis:** Reviews the relationship between bicycle activity, pedestrian activity, commute patterns, demographics, land use, and collisions.
- **Chapter 5 – Benefits of Bicycling and Walking:** Outlines the benefits of bicycling and walking as well as why these modes are important to the region's future.
- **Chapter 6 – Recommended Bikeway Improvements:** Includes recommended countywide bikeway projects such as signing, striping and maintenance as well as bikeway facilities throughout the county.
- **Chapter 7 – Recommended Pedestrian Improvements:** Outlines the recommended pedestrian improvement projects including infill of sidewalk gaps, specific intersection improvements and railroad crossing improvements.
- **Chapter 8 – Recommended Programs:** Describes proposed bicycle and pedestrian education, encouragement, enforcement and evaluation programs.
- **Chapter 9 – Implementation:** Outlines an implementation strategy, including cost estimates for proposed projects.
- **Chapter 10 – Funding:** Provides a list of potential funding sources for implementing the Plan's projects and programs.
- **Appendix A –** County Land Use Maps
- **Appendix B –** Bicycle Design Guidelines
- **Appendix C –** Pedestrian Design Guidelines
- **Appendix D –** Suggested Safe Routes to School Toolkit
- **Appendix E –** Routes to School Maps
- **Appendix F –** Community Survey
- **Appendix G –** Environmental Review Checklist

1. Introduction

The San Benito County Bikeway and Pedestrian Master Plan guides the future development of bicycle and pedestrian facilities within the County. This Plan was developed with extensive input from the community and seeks to meet its needs and desires for pleasant, enjoyable, and safe places to bicycle and walk. The diligent efforts of the Council of San Benito County Governments (COG), the County of San Benito, the Cities of Hollister and San Juan Bautista, the Bicycle and Pedestrian Advisory Committee, and citizens interested in improving the bicycle and pedestrian environment in the region have contributed to this document.

This Plan provides a blueprint for making bicycling and walking an integral part of daily life in the San Benito County area. The Plan was prepared under the direction of the COG and is intended to serve all local jurisdictions, and most importantly the citizens of the San Benito County region.

1.1. Purpose of the Plan

This Bikeway and Pedestrian Master Plan provides a broad vision, strategies, and actions for the improvement of bicycle and walking in the San Benito County region. This Plan is an update to the San Benito County Bikeway and Pedestrian Master Plan adopted in 2005 and was developed to build upon and enhance that plan. The purpose of this Plan is to expand the existing networks, connect gaps, address constrained areas, provide greater connectivity, educate, encourage, and to maximize funding sources.

The Plan helps ensure good connectivity between cities, develop joint projects where needed, and develop consistent design standards. The cities and County, have the option to develop and approve their own bicycle and pedestrian improvements. To the extent feasible, this Plan has incorporated existing local plans and priorities as part of its recommendations.

A key reason for preparing the San Benito Bikeway and Pedestrian Master Plan is to satisfy requirements of the California Bicycle Transportation Account (BTA), and other state and federal funding programs that Caltrans oversee and review.

1.2. Setting

San Benito County is located in California's Central Coast region at the southern end of the Santa Clara Valley, approximately 95 miles south of San Francisco, and 40 miles east of Monterey. The county is topographically bound by two mountain ranges: the Gabilan Range to the west and the Diablo Range to the east.

San Benito County is comprised of two (2) incorporated cities, Hollister and San Juan Bautista. They vary in population from about 1,900 in San Juan Bautista to over 37,000 in Hollister. Approximately 19,000 (32.9 percent) residents live in unincorporated areas of the county, including communities such as Aromas, Dunneville, Tres Pinos, Paicines, Panoche and the San Juan Valley area. [1-1]

[1-1] State of California, Department of Finance, 2009 (http://www.dof.ca.gov/research/demographic/)

Historically San Benito has been one of the fastest growing counties in the region, though its residents live at a relatively sparse density of approximately 38 persons per square mile, with most of the density in Hollister and surrounding areas in the northwestern part of the county.[1-2] The combined land area of both the cities of Hollister and San Juan Bautista represent a small percentage of the County's total land area of 1,396 square miles, with Hollister comprising the larger of the two at six (6) square miles.

San Benito County is accessible via Highway 101 on the west and Interstate 5 on the east side of the county. Highways 152 and 156 provide access on the north and south sides of the County. Highway 25 serves as an inter-regional link between the more developed northern end of the County, including Hollister, Tres Pinos, and Paicines, and the Pinnacles National Monument and Bureau of Land Management lands at the county's southern end. Highway 146 provides access to Pinnacles National Monument and Soledad from Highway 25. County roads such as G13 and J1 provide links to Highway 25 as well.

Union Pacific Railroad Company provides rail and freight service to the western portion of the county via Salinas to shipping destinations such as Roseville, San Francisco, and Los Angeles. Hollister, San Juan Bautista, and the Tres Pinos areas are served by public transportation, which includes express linkages to other transit services in Santa Clara County, such as the Gilroy Greyhound Terminal/Caltrain Station, and Gavilan Junior College in Gilroy.

1.3. Bicycling and Walking in the San Benito County Region

1.3.1. Bicycling

Like many communities throughout the US, San Benito County is experiencing a resurgence in bicycling as a means of transportation. The bicycle is a low-cost and effective means of transportation that is quiet, non-polluting, energy-efficient, versatile, healthy, and fun. Bicycles offer low-cost mobility to the non-driving public. Bicycling is also a popular recreational activity for people of all ages. Recent national and local surveys find that more people are willing to bicycle more frequently if better bicycle facilities are provided.

San Benito County and its jurisdictions stands poised to increase bicycle use, due to several factors:

1. The San Benito region has many attributes to become a bicycle-friendly community. This includes small towns and cities, a moderate climate, flat terrain throughout the incorporated areas of the county, many recreational attractions such as geographic proximity to employment, school centers, and parks and a population interested in health, environment, and livable neighborhoods.

2. There is a history of bicycling and bikeway planning in the San Benito area. More residents are bicycling for recreation and for commuting. Consequently, more have been advocating for improved bicycling conditions. As early as 1991, during the development of San Benito County's first Bikeway Plan, residents expressed a desire for more miles of bicycle lanes and off-street paths; more bicycle parking; and better maintenance of existing bicycle facilities.

[1-2] U.S. Census, 2000 (http://quickfacts.census.gov/qfd/states/06/06069.html)

1.3.2. Walking

Walking is the oldest and most basic form of human transportation. It is environmentally sustainable, requires little infrastructure, and is integral to the health of individuals and communities. A community that is designed to support walking is livable and attractive.

San Benito's rural atmosphere invites pedestrians to take a leisurely stroll in downtown Hollister or San Juan Bautista or walk to a community park. In fact, built before the advent of the automobile, both town centers of Hollister and San Juan Bautista have the charm of historically significant buildings and architecture, and small, walkable scales. However, reaching outlying housing areas to employment or transit in the towns by foot can be a challenge. Many streets have discontinuous or no sidewalks and have difficult street crossings. In some cases, adding sidewalks is expensive and can take away from the street's rustic quality. Consideration for the rustic nature of the area while improving its walkability is considered in the Plan's recommendations.

1.4. Becoming a Pedestrian and Bicycle Friendly Community

Safety, access, quality of life, and effective implementation are imperative elements for the region's success as a bicycle and pedestrian-friendly community.

Safety is the number one concern of citizens, whether they are avid or casual recreational bicyclists or walkers or pedestrian/bicycle commuters. In most cases, bicyclists and pedestrians must share narrow, high traffic roadways and cross busy intersections. A consistent bicycle network with either bike lanes or wider curb lanes and signing is generally lacking in the area. The lack of a continuous sidewalk system in many neighborhoods, especially along busy streets and in older areas, forces pedestrians and young bicyclists to walk or ride in the street.

Access improvements for bicyclists and pedestrians are important to help improve the ability to take utilitarian trips to designations like shops, work, and school. Additionally, San Benito County suffers from a lack of continuous and connected bikeways and walkways into the County's town centers, and connecting schools, parks, employment, and shopping areas.

This Plan urges San Benito COG and the local jurisdictions to take measurable steps toward the goal of improving citizens' quality of life, creating a more sustainable environment, reducing traffic congestion, vehicle exhaust emissions, noise, and energy consumption. The importance of developing a bicycle and pedestrian system that is attractive and inviting is a key element in preserving the region as a place where people want to live, work, and visit. The attractiveness of the environment not only invites bicyclists to explore San Benito County, but more importantly, a beautiful environment helps to improve everyone's positive feelings about the quality of life.

Education, enforcement, engineering, and funding are the basic components of an effective implementation program for this Plan. Education must be targeted to the bicyclist as to the motorist regarding the rights and responsibilities of the bicyclist, pedestrian, and automobile driver. Also critical are comprehensive enforcement of existing traffic and parking laws and the implementation of sound design and engineering principles for bikeways. Finally, this plan proposes an aggressive strategy for obtaining grants and competing for other funding sources in order to realize the physical improvements identified as the highest priorities.

1.5. Bikeway and Pedestrian Master Plan Process

This plan is an update to the San Benito County Bikeway and Pedestrian Master Plan. The COG initiated the process of updating this document in May 2008. The COG is composed of appointed members representing each of the incorporated cities, as well as representatives from San Benito County. The COG functions as the Regional Transportation Planning Agency whose mission is to improve the mobility of San Benito County travelers by planning for and investing in a multi-modal transportation system that is safe, economically viable, and environmentally friendly.

Members of the Bicycle and Pedestrian Advisory Committee

To fully engage residents in the production of this Plan, the COG hosted two public workshops and also met with the Bicycle and Pedestrian Advisory Committee and the Technical Advisory Committee, composed of representatives from the various governmental and community agencies in the county. The COG collected additional information through bicycle and pedestrian surveys, which were distributed throughout the County and cities.

1.6. Overview of the Plan

The San Benito County Bikeway and Pedestrian Master Plan contains the following chapters:

Chapter 1 – Introduction: Sets the context for the Plan including purpose and structure.

Chapter 2 – Goals, Objectives, and Policy Actions: Summarizes the goals, policies, and objectives guiding the implementation of the Plan, incorporating previous planning efforts.

Chapter 3 –Existing Conditions: Provides a description of the existing bicycle and pedestrian conditions in San Benito County and cities. The chapter includes a map of existing bikeways and descriptions of existing bicycle programs as well as discussion of existing pedestrian facilities.

Chapter 4 – Needs Analysis: This chapter reviews the relationship between bicycle activity, pedestrian activity, commute patterns, demographics, land use, and collisions.

Chapter 5 – Benefits of Bicycling and Walking: Provides an outline of the benefits of bicycling and walking as well as why these modes are important to the region's future.

Chapter 6 – Recommended Bikeway Improvements: Includes recommended countywide bikeway projects such as signing, striping and maintenance as well as bikeway facilities throughout the county.

Chapter 7 – Recommended Pedestrian Improvements: Outlines the recommended pedestrian improvement projects including infill of sidewalk gaps, specific intersection improvements and railroad crossing improvements.

Chapter 8 – Recommended Programs: Describes proposed bicycle and pedestrian education, encouragement, enforcement and evaluation programs.

Chapter 9 – Implementation: Outlines an implementation strategy, including cost estimates for proposed projects.

Chapter 10 – Funding: Provides a list of potential funding sources for implementing the Plan's projects and programs.

1.7. Bicycle Transportation Account Compliance

To qualify for Bicycle Transportation Account funding, local bicycle plans must meet the criteria of California Streets and Highways Code Sec 891.2, detailed in **Table 1-1** below. As of 2008, the amount of funding available to California communities through the Bicycle Transportation Account was $7 million statewide. Most communities will need to seek additional funding to implement elements of bicycle and pedestrian plans. There are no specific requirements for most other state and federal funding sources that this Plan must meet. However, having an adopted bicycle and pedestrian plan substantially improves the chances of securing funds for any project that is part of a planning process.

Table 1-1: Summary of Bicycle Transportation Account Requirements and Location

Required Plan Element	Location
(a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	4-5 and 4-16 (existing) and 5-5 (estimated increase).
(b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	Pages 4-1 and 4-2. Appendix A.
(c) A map and description of existing and proposed bikeways.	Chapter 6. Recommended Bikeway Improvements. Figures 6-4, 6-5, 6-6, 6-7 and 6-8.
(d) A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	Pages 6-2 and 6-3. Figures 6-7 and 6-8.
(e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Page 6-3. Figures 6-4, 6-5, 6-6, 6-7 and 6-8.
(f) A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.	Page 6-3.
(g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.	Pages 3-10 through 3-11.
(h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.	4-11 through 4-15.

(i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.	Pages 2-1 through 2-8.
(j) A description of the projects proposed in the plan and a listing of their priorities for implementation.	Pages 9-1 through 9-5.
(k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	Pages 9-7 through 9-9.

2. Policies, Goals, and Objectives

This chapter provides a summary of planning and policy documents from the San Benito County region that are relevant to the San Benito County Bikeway and Pedestrian Master Plan. It also includes goals and objectives that provide a blueprint for making biking and walking an integral way of life in San Benito County and cities. Plans and policies are considered relevant if they directly address bicycle and pedestrian facilities, or if they address land use patterns that affect bicycle or pedestrian transportation planning. Relevant documents are from the State of California, San Benito COG, San Benito County, the cities of Hollister and San Juan Bautista, and the Association of Monterey Bay Area Governments.

2.1. COG Planning Documents

2.1.1. San Benito County Regional Transportation Plan (2005)

The San Benito 2005 Regional Transportation Plan is a policy document designed to outline short-term transportation strategies and long-term transportation goals for the region. The goals related to bicycle and pedestrian travel set forth in the plan include the encouragement of pedestrian and bicycle travel within urbanized areas, facilitation of travel between and within new and existing development, and the promotion of bicycle and pedestrian safety. Policies include the requirement of bicycle parking at rail and transit stations, street cleaning and maintenance to ensure bicyclist safety, the construction of a Class I path along the San Benito River, and the assurance of sidewalk accessibility. The plan also includes prioritization for short-term improvements through 2012 and long term horizons through 2030. The prioritized short-term non-motorized improvements include a ridesharing program, bikeway repair and maintenance, and the San Juan Highway Bike Lanes construction project. Long term improvements include the San Benito River Recreational Trail and implementation of the 2005 San Benito County Bikeway and Pedestrian Plan.

2.1.2. San Benito County Bikeway and Pedestrian Master Plan (2005)

In 2005, the County of San Benito reaffirmed the adopted the San Benito County Bikeway and Pedestrian Master Plan, continuing the county's commitment to support bicycling and walking as an integral part of daily life in the county. The Plan provides information on current and future usage, existing and proposed facilities and programs, design guidelines, and cost estimates. The 2005 Plan proposes fifteen (15) bikeway projects and numerous pedestrian facility improvement projects as well as bicycle and pedestrian programs. Recommended projects in the plan include downtown Hollister bikeways and bikeways connecting San Juan Bautista to Anzar High School. Recommended pedestrian projects in the plan include improvements in the downtowns of Hollister and San Juan Bautista. Also recommended are programs as wayfinding signage, maintenance programs, and school commute improvement programs.

2.2. County Planning Documents

2.2.1. San Benito County General Plan

All California counties are required to create and adopt a General Plan to guide future land use and development for a period of 10 to 20 years. Based on the vision of the community, the San Benito County General Plan sets forth goals and policies in the elements of Land Use, Environmental Resources and Constraints Inventory, Housing, Noise, Transportation, and Scenic Roads and Highways. All other planning documents developed by the County must be consistent with the goals and policies of the General Plan. San Benito County is currently undergoing a comprehensive update of the General Plan.

Transportation and Land Use Elements (1994)

Public road standards and county goals regarding bicycle and pedestrian facilities are identified in the General Plan's Transportation Element. San Benito County adopted its current Transportation Element in 1994. Many of the current Transportation Element's policies aim to broaden transportation options for residents. The current Transportation Element will be replaced by policies currently in development through the Comprehensive Update of the General Plan. Transportation Element policies supportive of biking and walking are listed in **Table 2-1**.

Table 2-1: Relevant General Plan Policies

Policy	Description
Policy 20:	Support the development of mixed land uses to reduce vehicle trips on collectors and arterials (p. 17)
Policy 23:	Bicycle use shall be encouraged within the County for commuting and recreational uses (p. 17)
Policy 24:	Require dedication and construction of walkways for through, safe, pedestrian traffic and internal pedestrian circulation in new large scale developments or within the vicinity of concentrations of population (p.18)
Policy 25:	Encourage clustered land use to encourage pedestrian and combined pedestrian and transit use (p. 18)
Policy 26	Develop a program to provide pedestrian/bike paths linking schools, commercial centers, and recreational areas to communities in the county (p. 18)

The Land Use Element of the San Benito County General Plan was adopted in July 1992 and revised in April 2005. The Land Use Element focuses on preserving the county's natural rural atmosphere and character while providing for growth. It has policies and goals related to bicycle and pedestrian planning. The plan recommends residential area densities to be developed up to twenty dwelling units per acre. Additionally, trails, parks and public facilities may be allowed in residential areas subject to use permits. The County's General Plan's land use maps are in **Appendix A**.

Open Space and Conservation Element (1995)

The Open Space and Conservation Element of the San Benito County General Plan was adopted in February 1995. The Element has several policies and actions related to bicycle and pedestrian planning. The plan recommends utilization of "land use and transportation controls for the protection and enhancement of air quality." Actions for this policy include urban concentration as well as bicycle and pedestrian access to parks and community facilities. The plan also requires new development to provide easements for trails and bikeways identified in the City of Hollister Parks and Recreational Master Plan. The Open Space and Conservation Element requires County and City bike plans to be consistent with the County Bike Plan.

2.2.2. San Benito County Parks and Recreation Master Plan

The San Benito County Parks and Recreation Commission completed a Park and Recreation Master Plan in 2009. With input from the Commission, County partners, and the public the plan includes recommendations for future park facility needs, recreation activities and programs, and funding sources. The planning process included multiple public workshops and surveys.

2.2.3. San Benito Route 156 Improvement Project Final Environmental Impact Report (2008)

The California Department of Transportation has proposed to widen State Route 156 from The Alameda in San Juan Bautista to San Juan Road. None of the proposed alternatives include bicycle facilities however all provide wide shoulders. Alternative 4A, a conventional four-lane highway, proposes ten foot shoulders. Alternatives 2 and 6, both conventional four-lane highways, provide frontage roads with eight foot shoulders. The shoulder widths of all alternatives would accommodate bicycle facilities. The Final Environmental Impact Report designates Alternative 6 as preferred. It proposes the use of the existing roadway as a northern frontage road and the construction of a four-lane expressway south of the existing Route 156.

2.3. Hollister Planning Documents

2.3.1. City of Hollister General Plan (2005, amended in 2007)

One of the goals of the plan is to ensure Hollister has well maintained and safe pedestrian walkways and bicycle facilities that promote use in downtown Hollister and throughout the City. The goal states that facilities should accommodate recreational and commuter users. The General Plan's Circulation, Land Use, and Housing Elements include goals and policies to provide pedestrian and bicycle facilities. The Circulation Element includes policies promoting cooperation with COG, Caltrans, and San Benito County to develop, implement, and maintain bicycle facilities. Also included are policies to develop a "Safe Routes to School" program and to ensure pedestrian connections to major public facilities, schools, and employment centers. Policies in the Land Use Element encourage business areas to have adequate pedestrian and bicycle facilities and to encourage alternatives to the use of private automobiles. The Hollister Land Use map is shown in **Figure 2-1**. The Housing Element has a policy to encourage the residential development that supports physical activity.

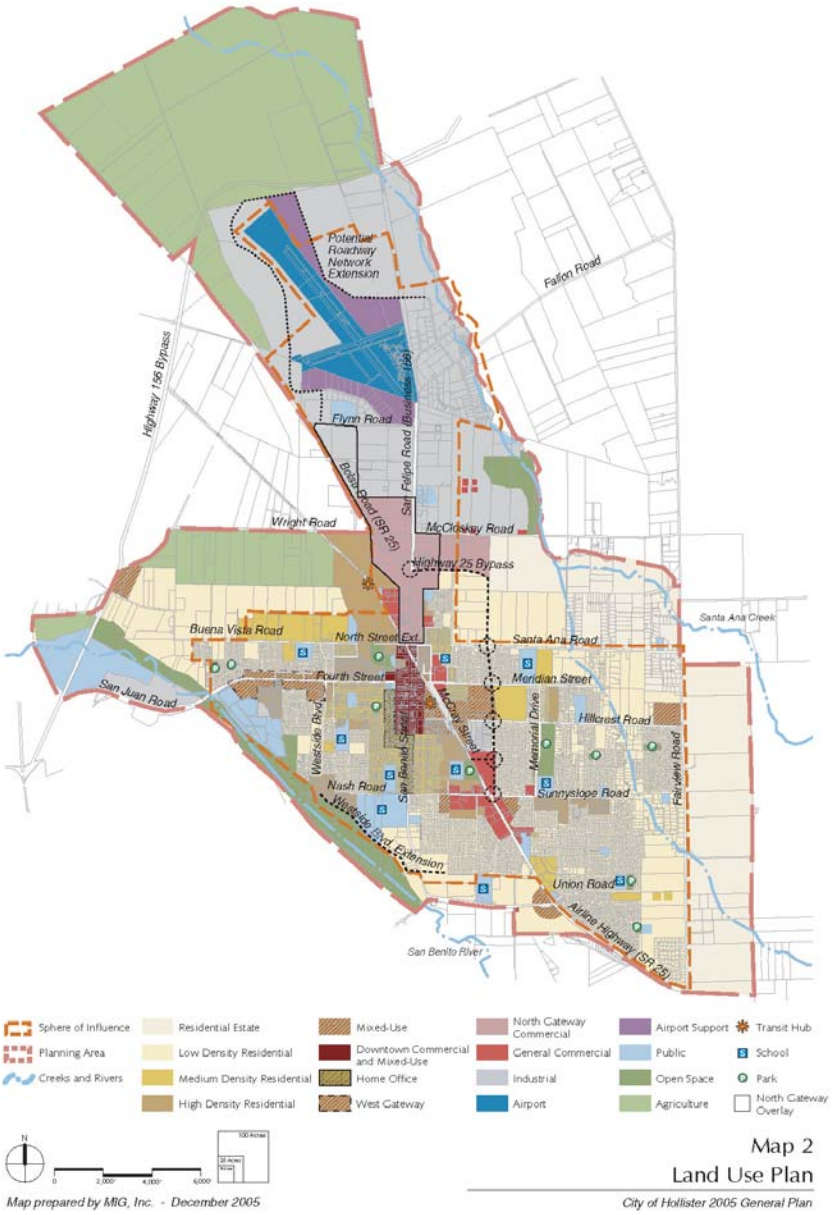


Figure 2-1: Hollister Land Use Map

2.3.2. City of Hollister Zoning Code

The City of Hollister's Zoning Code references bicycle and pedestrian facilities in several sections. Section 17.04.030 Residential General Development Standards states that there should be pedestrian connectivity between neighborhoods with *a grid or loop street network*. Where this is not possible, *twenty-20 foot- wide pedestrian/bicycle/transit connection shall be integrated into cul-de-sacs and subdivision designs*. In the Commercial Mixed-Use area of Hollister, the Landscaping and Building Design Code (section 17.08.040) states that a review of the bikeway plan is necessary for review with applications and *Class II Bicycle lanes shall be required on the frontage of all interior roads in the North Gateway district* and *a Class I Bicycle lane shall be required on the west side of San Felipe Road and on city arterials*. The North Gateway district is in the northern section of the city and shown in Figure 2-1. Additionally, in the

Industrial/Manufacturing Zoning Districts (section 17.10.040), the code states: *New industrial subdivisions shall include provision for passive and active recreation including Class II bicycle paths with the road improvements, integration of shade trees along sidewalk frontages…*

Chapter 17.18.030 (General Pedestrian, Bicycle and Parking Regulations) has extensive details for bicycle parking codes. The number of bicycle parking stalls is a directly linked with the number of vehicle parking requirements. Other details include design standards and bicycle parking location (*within fifty feet of a building entrance and within view of pedestrian traffic*).

2.3.3. City of Hollister Downtown Plan (2008)

The Hollister Downtown Plan is a revitalization plan with a series of visions to help the City's downtown area evolve over time with specific projects. Included in the document are descriptions of these projects and a set of design guidelines for rehabilitation and new development. Projects aim to increase walking and bicycling in the downtown core. Bicycle improvements called out in the plan include:

- Constructing bicycle and pedestrian connections linking McCray Street to Fifth Street and Seventh Street. This would occur if the railroad is decommissioned.
- Installing 90 inverted-u racks for bicycle parking on sidewalks.

In addition to these projects, many of the other projects and design guidelines relate to pedestrian infrastructure improvements. With the Highway 25 bypass, pedestrian improvements on San Benito Street will become more possible. The Downtown Plan calls out specific improvements to install traffic calming and improvements to facilitate pedestrian travel, including:

- Decrease the number of lanes to one in each direction and a center turn lane.
- Angle parking on one side of the street.
- Curb extensions on San Benito Street at all intersections and mid-block crossings between Third and South Street.
- Additional streetscape furniture and amenities along Downtown Streets.
- Decorative pavers on all downtown, civic center, and cannery neighborhood crosswalks.
- Roundabout and landscaping at the intersection of West Street, Third Street, and Virginia Drive.
- Pedestrian-scaled wayfinding signage placed throughout the downtown area (as **Figure 2-2** shows)

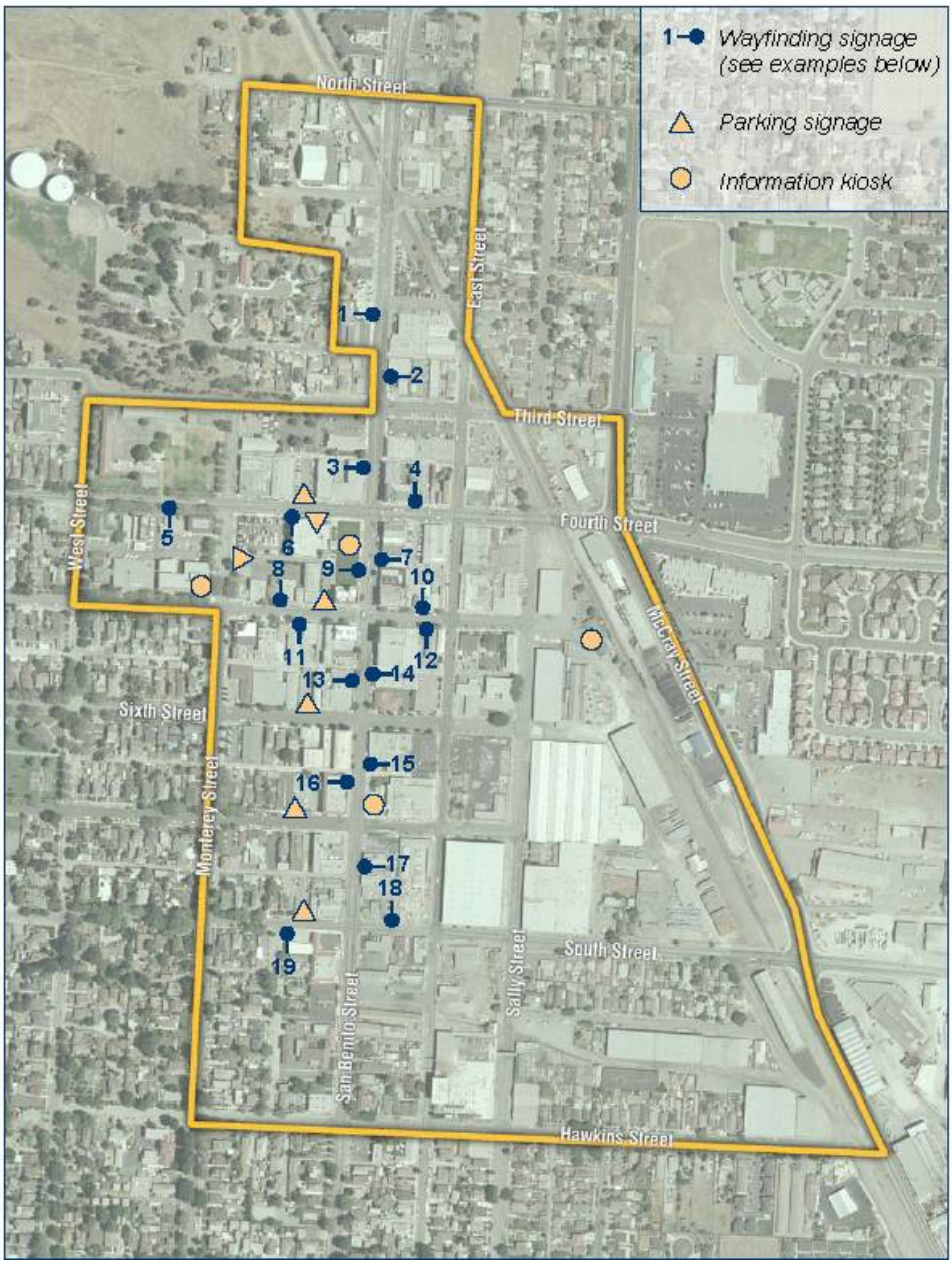


Figure 2-2: Downtown Hollister Wayfinding Signage Plan

2.3.4. City of Hollister Park Master Plan (2002)

The Hollister Park Master Plan includes a number goals supportive of non-motorized transportation. One of the goals is to provide a network of interconnected trails and bikeways linking parks, schools, and scenic open space areas. Other goals of the Park Master Plan include provisions for high quality neighborhood and community parks equitably distributed throughout the city.

2.4. San Juan Bautista Planning Documents

2.4.1. San Juan Bautista General Plan (1998)

The General Plan includes non-motorized transportation in a few key areas. The Transportation, Community Design, Open Space, and Land Use Elements all include policies to encourage alternatives to the private automobile. The Transportation and Open Space Elements state that the City should encourage walking a bicycling as viable modes of transportation. The Transportation Element has a goal to establish a safe, convenient network of paths, sidewalks, crosswalks, and bicycle lanes. In addition to providing an on-street network of bikeways, bicycle parking and signs are also recommended as improvements for increasing bicycle use in the City. The Plan calls out the specific locations of the library, City Hall, and the Mission and School as areas needing bicycle parking. The Circulation Element also places a priority on protecting the safety of children walking and biking to schools and parks in the City

The Circulation Element of the General Plan includes several bicycle projects that are also included as recommendations in this Plan. More information is provided in the Recommendations portion of this Plan for the segments of:

- San Juan Canyon Road south of Mission Vineyard
- San Juan Highway between San Juan Bautista and Anzar High School
- Along the old El Camino Real north of the Mission
- Old El Camino bike path along the edge of the San Andreas Fault north of Mission.
- Along San Juan Creek within new development areas south of Highway 156.
- The San Juan Creek from San Juan- Hollister Road south across San Juan Canyon Road

The Community Design Element requires commercial site plans to be pedestrian friendly and the Land Use Element encourages the development of pedestrian oriented businesses and design along Third Street.

2.4.2. City of San Juan Bautista Municipal Code

The San Juan Bautista Municipal Code has two relevant references to sidewalks and bicycles. In the city, bicycles are not permitted to ride on any sidewalk and bicycle parking is required at a ratio of 1:10 of vehicle parking stalls in the commercial and mixed-use districts.

2.4.3. San Juan Bautista Design Guidelines (2004)

The City of San Juan Bautista adopted Design Guidelines to implement its Municipal Code. The City has a rural and historic design pattern and character and the Guidelines aim to preserve these urban form attributes. For the purposes of this plan, sidewalk development as outlined in these Guidelines is important. Third Street is the Commercial Core of the City. Along this stretch, buildings are built to the front of the property line as infill occurs, the Guidelines state that this should continue for the benefit of the streetscape.

In all areas of the City, the Guidelines state that providing pedestrian amenities with non-residential land uses is important during the initial design. Amenities include benches, shelter, drinking fountains, lighting, and bicycle racks. Also, pedestrian open spaces that are integral to the development site plans are recommended.

2.5. State and Regional Plans and Policies

2.5.1. California AB 1358 – Complete Streets (2008)

California Assembly Bill (AB) 1358 is known as the Complete Streets Bill. Effective in 2011, the bill will require revisions to a city or county's Circulation Element to include provisions for the accommodation of all roadway users including bicyclists and pedestrians. Accommodations include bikeways, sidewalks, crosswalks, and curb extensions.

2.5.2. California SB 375 – Sustainable Communities (2009)

SB 375 requires the San Benito Council of Governments to create a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan. The SCS must identify the ways in which the region will meet the greenhouse gas emissions targets outlined by the California Air Resources Board. One of the ways to meet the greenhouse gas emissions targets is to increase the bicycle mode share. Substituting bicycle trips for vehicle trips will reduce San Benito County's greenhouse gas emissions.

2.6. Association of Monterey Bay Area Governments

The COG is a member agency of the Association of Monterey Bay Area Governments (AMBAG). AMBAG is the regional Metropolitan Planning Organization for the area and includes other member agencies from Monterey and Santa Cruz Counties. Partners include county and city governments.

2.6.1. Monterey Bay Metropolitan Transportation Plan (2005)

The Metropolitan Transportation Plan includes proposed transportation projects and programs from the region's member agencies. Projects included in the Plan are based on need, an evaluation of alternatives, and a plan to satisfy the need. The third goal in the Plan is to promote alternative modes of transportation including bicycling and walking to help relieve future congestion. Strategies related to walking or bicycling to meet this goal are installing bicycle and pedestrian facilities in new construction projects and consideration for linking walking and bicycling trips with transit trips.

2.7. Goals and Objectives

Goals and objectives provide the context for the specific policy and implementation actions for the Bikeway and Pedestrian Master Plan. The goals provide the long-term vision and serve as the foundation for the plan. Goals are broad statements of purpose and objectives provide specific descriptions of the goal, providing a bridge between what is general to actual implementation strategies.

2.7.1. Goal 1 Increase Bicycle and Pedestrian Access

Objective 1-1: Implement the Bikeway and Pedestrian Master Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs over the next 20 years.

Objective 1-2: Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational sites, in pursuit of the San Benito County Council of Governments General Plan and Regional Transportation Plan policies of encouraging bicycle and pedestrian travel.

Objective 1-3: Consider bicycle and pedestrian facilities in all projects (e.g. transportation, development, parks, etc.).

Objective 1-4: Increase the number of bicycle-transit trips and pedestrian access to transit.

Objective 1-5: Coordinate bicycle and pedestrian planning and design between San Benito's public agencies as well as neighboring agencies.

Objective 1-6: Consider bicycle and pedestrian facilities that may enhance economic development.

Objective 1-7: Consider bicycle and pedestrian facilities in low income segments of the community-improving public access to jobs and services.

2.7.2. Goal 2 Improve Bicycle and Pedestrian Safety

Objective 2-1: Reduce the number and severity of bicyclist and pedestrian injuries and fatalities.

Objective 2-2: Proactively enforce pedestrian and bicycle-related traffic laws through activities such as targeted enforcement, pedestrian stings, or a police-staffed checkpoint where officers distribute bicycle and pedestrian related information.

2.7.3. Goal 3 Ensure All Residents are Knowledgeable about Bicycle and Pedestrian Safety

Objective 3-1: Work with local police or other certified trainers to educate San Benito students about bicycle and pedestrian safety with in-classroom bicycle and pedestrian safety training.

Objective 3-2: Provide adult education for bicycle and pedestrian safety.

2.7.4. Goal 4 Increase Bicycle and Pedestrian Trips

Objective 4-1: Make biking and walking an integral part of daily life in San Benito County, particularly for trips less than five miles, by implementing and maintaining a bikeway network, providing end-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer.

Objective 4-2: Implement the Bikeway and Pedestrian Master Plan that identifies existing and future needs, and provides specific recommendations for facilities and programs for the next 20 years.

Objective 4-3: Complete a network of bikeways and walkways that are feasible, fundable, and that serve bicyclists' and pedestrians' needs, especially for travel to employment centers, schools, commercial districts, transit stations, institutions and recreational destinations.

Objective 4-4: Maintain and improve the quality, operation, and integrity of bikeway and walkway network facilities.

Objective 4-5: Conduct bicycle and pedestrian counts at the same locations during the same days every 2 years to monitor changes in bicycle and pedestrian commute trips.

Objective 4-6: Provide short- and long-term bicycle parking in employment and commercial areas, in multifamily housing, at schools, and at recreation and transit facilities.

Objective 4-7: Support education programs to increase walking and bicycling to school, work, and for utilitarian trips.

Objective 4-8: Promote bicycling as a healthy transportation option that improves physical fitness.

3. Existing Conditions

Existing conditions in the San Benito County region include both existing patterns of walking and bicycling and existing physical improvements and programs that support these activities. Bicycle facilities in the study area range from existing bike paths to signed routes. Pedestrian facilities range from rural areas with few pedestrian amenities to walkable downtowns and neighborhoods.

3.1. Existing Bicycle Facilities

3.1.1. Existing Bikeways

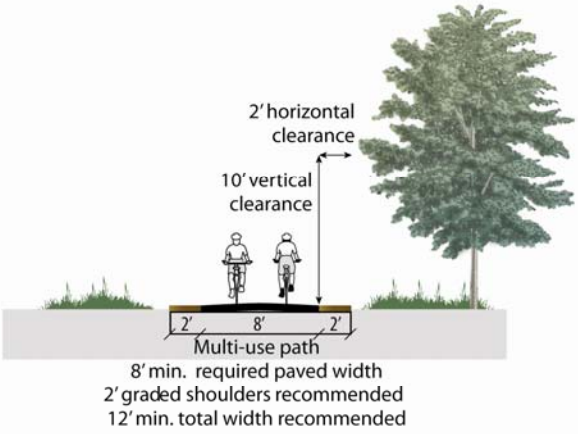
This Plan refers to bikeways using Caltrans standard designations. The three types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual are defined below. **Figure 3-1** illustrates these three types of bikeways.

- Class I Bikeway: Typically called a "bike path," a Class I Bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- Class II Bikeway: Often referred to as a "bike lane," a Class II Bikeway provides a striped and stenciled lane for one-way travel on a street or highway.
- Class III Bikeway: Generally referred to as a "bike route," a Class III Bikeway provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing.

San Benito County's existing bicycle network is shown in **Figures 3-2** through **3-4**. **Figure 3-5** and **Figure 3-6** show Hollister's and San Juan Bautista's existing bicycle network, respectively.

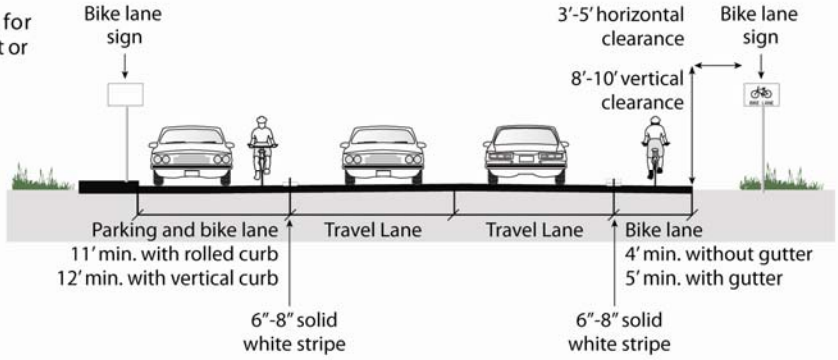
CLASS I
Multi-Use Path

Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.



CLASS II
Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.



CLASS III
Bike Route
Signed Shared Roadway

Provides for shared use with pedestrian or motor vehicle traffic, typically on lower volume roadways.

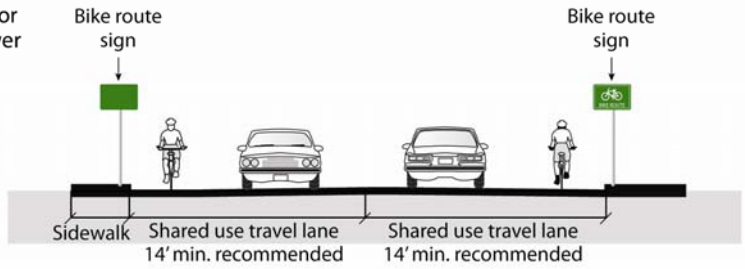
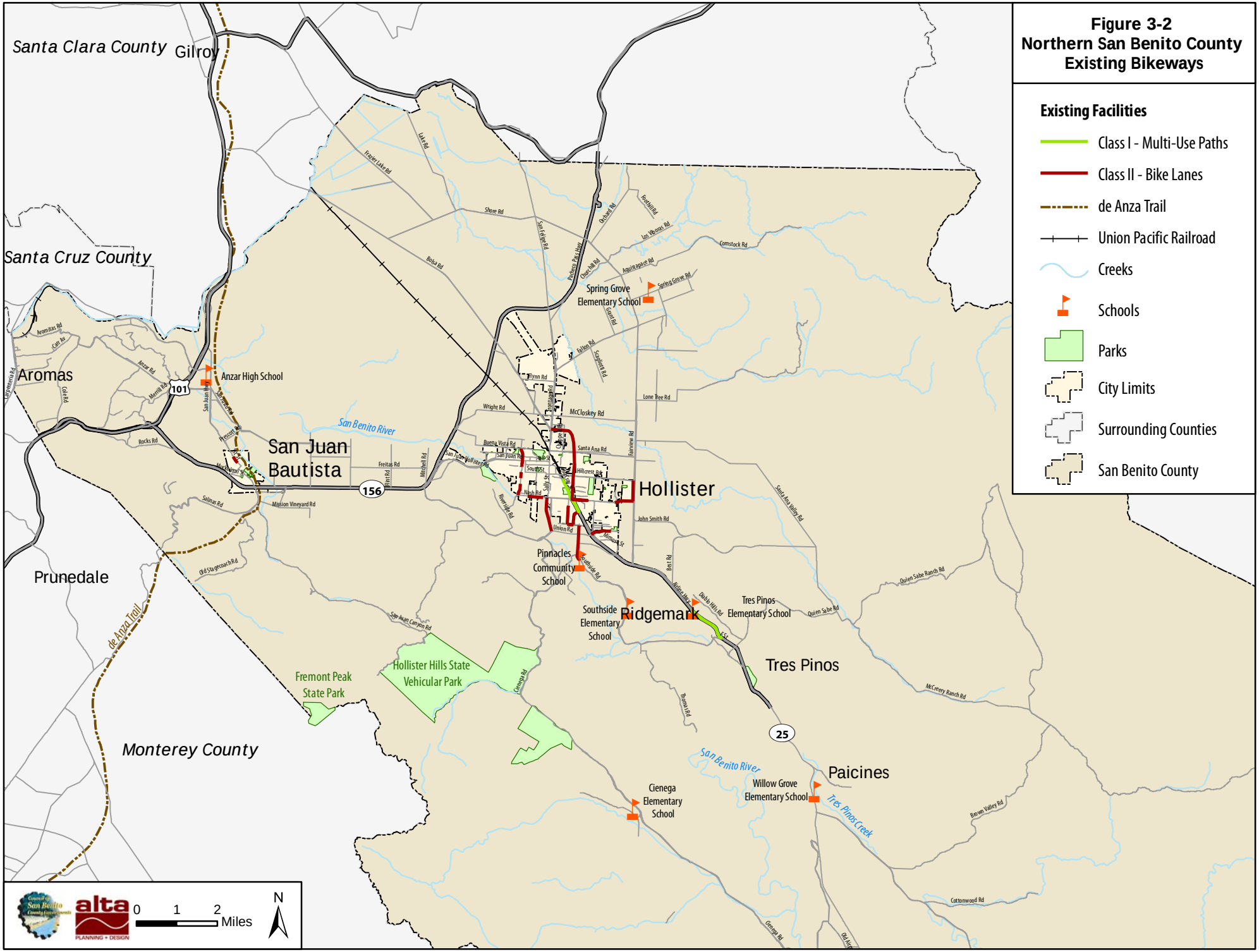
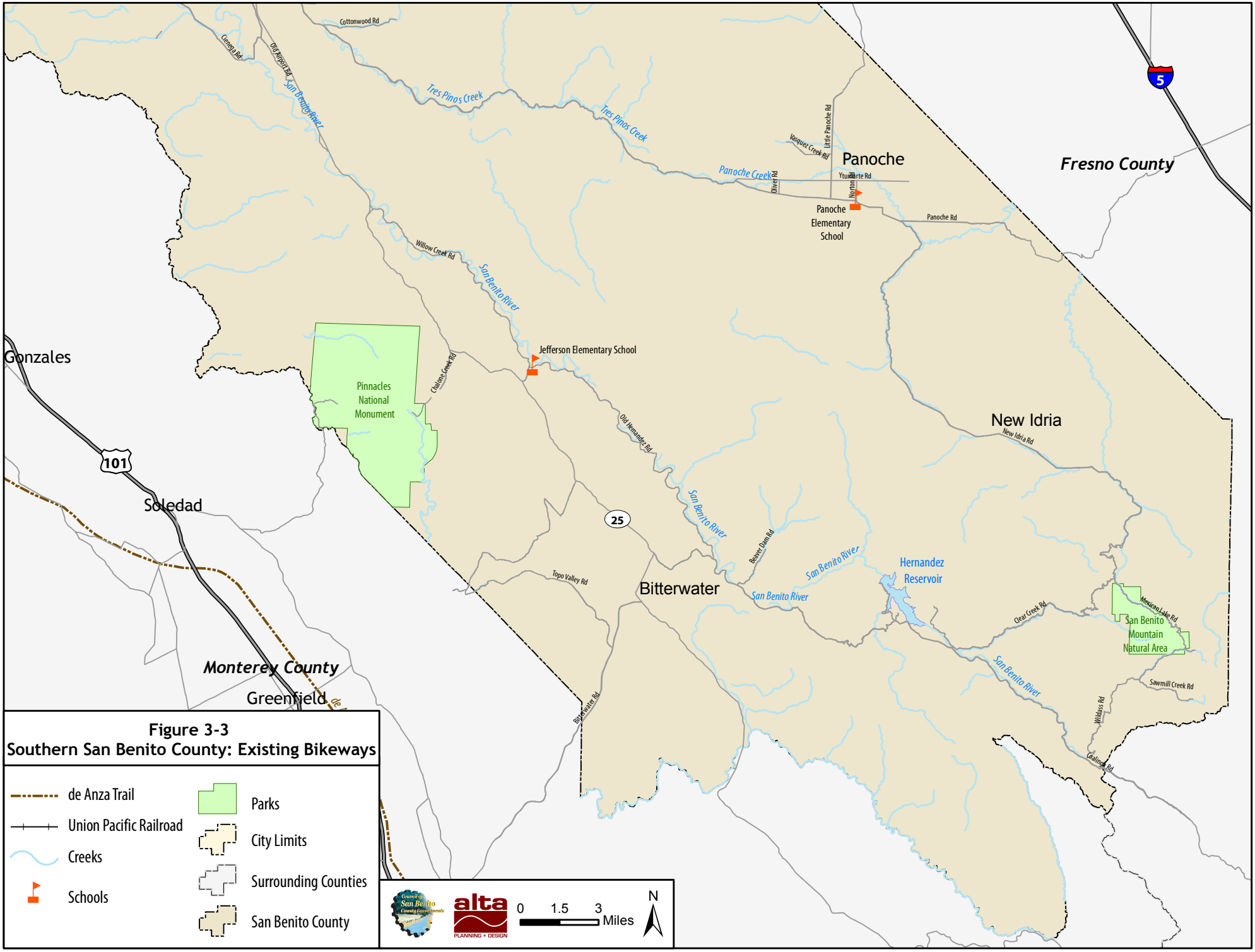


Figure 3-1 Caltrans Bikeway Classifications

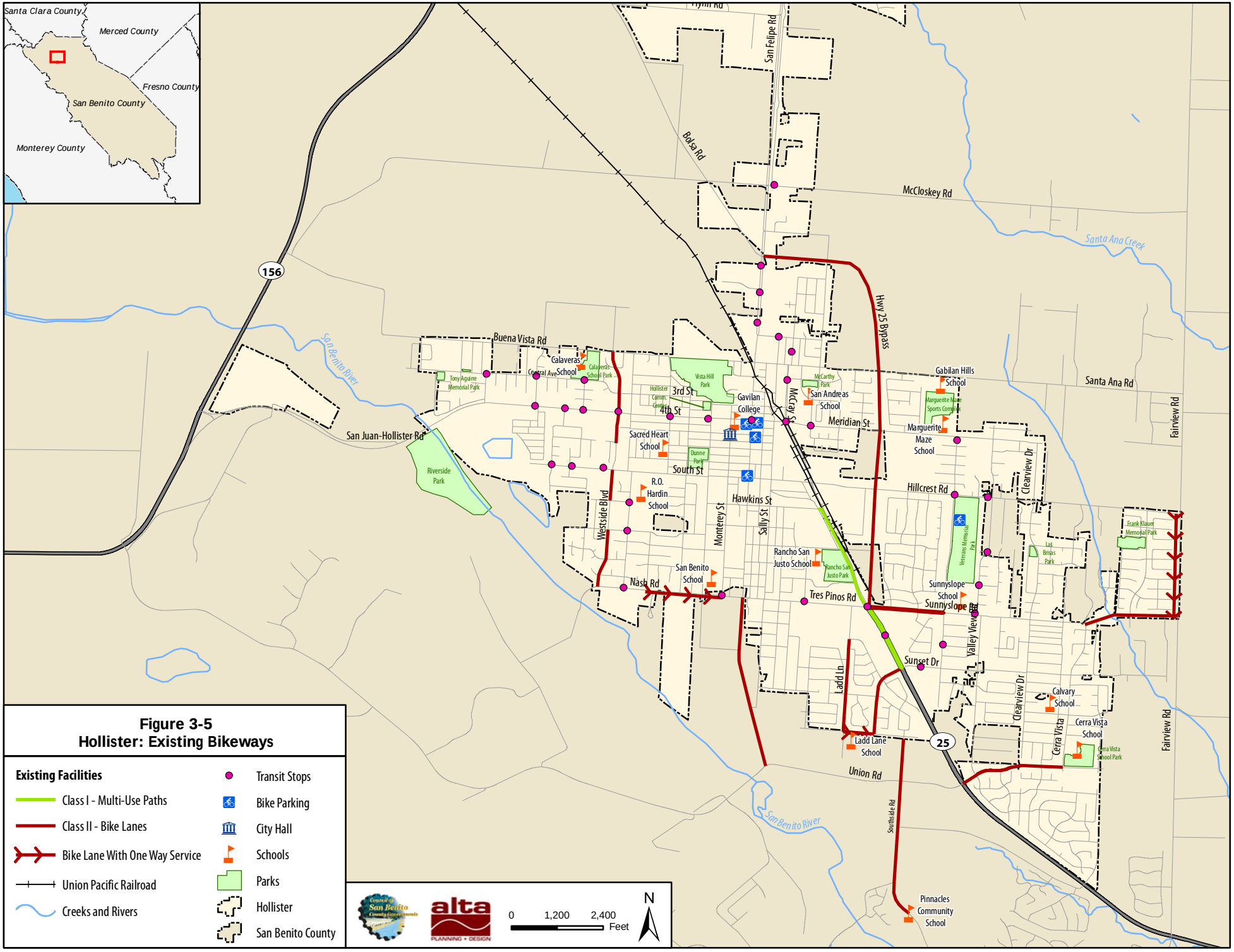


Source: San Benito County and ESRI.

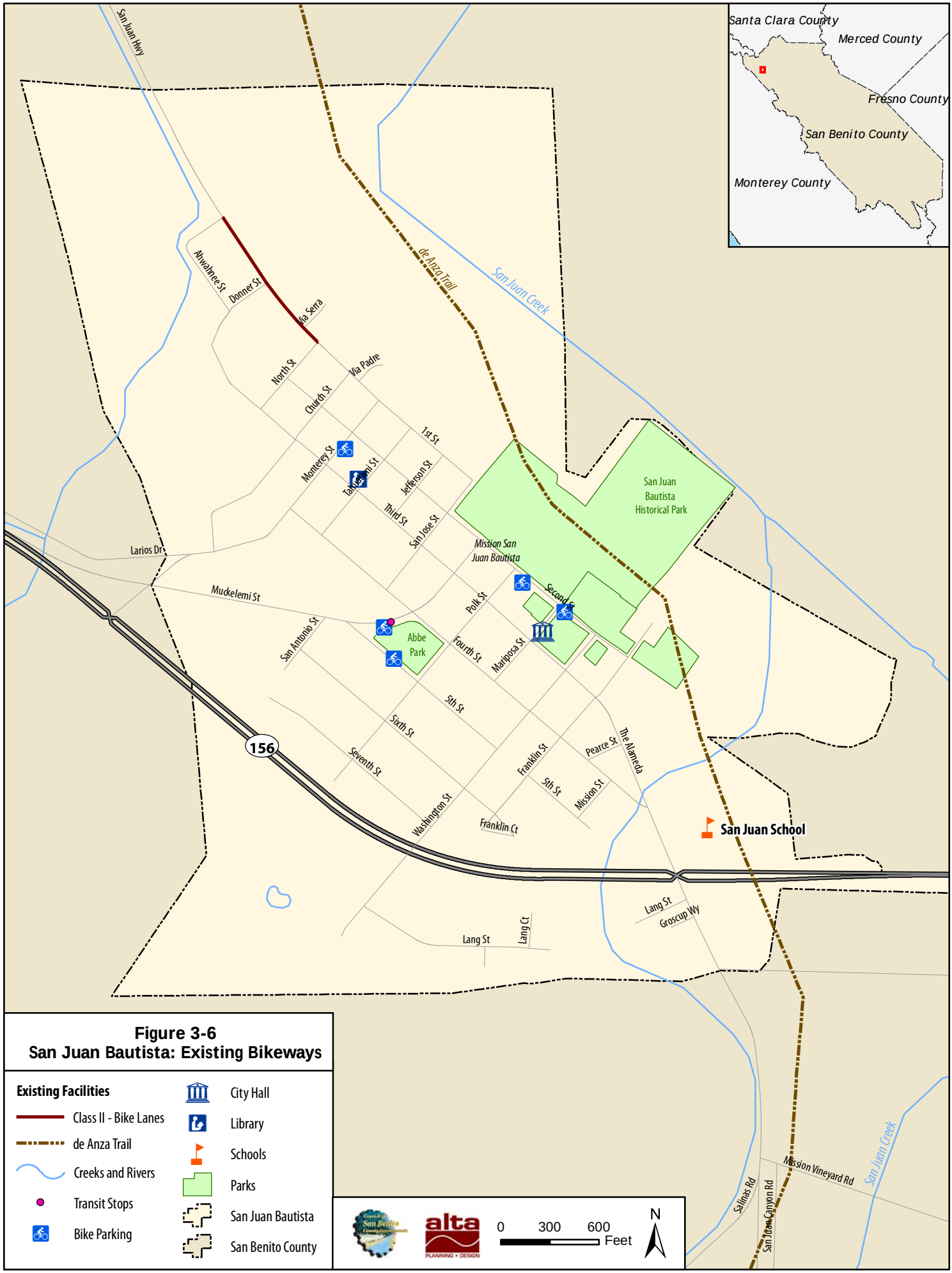


Source: San Benito County and ESRI.

Source: County of San Benito and ESRI.



Source: County of San Benito and ESRI.



Source: County of San Benito and ESRI.

San Benito County and cities' existing bikeway network consists of approximately two miles of bike paths and eight miles of bike lanes. **Table 3-1** lists the existing bikeways in the study area. Existing Class I bike paths often parallel arterial roadways. Existing Class II bike lanes are on urban roadways, often on arterial streets. There are no existing Class III bikeways in the region.

Table 3-1: San Benito Existing Bikeways

Class	City/County	Name	Start	End	Miles
I	County	Airline Hwy - Tres Pinos	Tres Pinos School	Southside Road	1.04
I	Hollister	Prospect Avenue Path	Hawkins Street	Tres Pinos Road	0.55
I	Hollister	Airline Hwy Bike Path	Sunnyslope Road	Sunset Drive	0.70
II	Hollister	San Benito Street Bike Lane	Tres Pinos Road	Union Road	0.85
II	Hollister	Ladd Lane Bike Lane	Hillcock Drive	Southside Road	0.61
II	Hollister	Fairview Road Bike Lane	Hillcrest Road	Sunnyslope Road	0.50
II	Hollister	Sunset Drive Bike Lane	Airline Hwy	Southside Road	0.39
II	Hollister	Westside Boulevard	Buena Vista Road	Jan Avenue	0.46
II	Hollister	Union Rd	Airline Hwy	Fairview Road	1.01
II	County	Southside Road	Southside Road	South of Hospital Road	0.69
II	Hollister	Sunnyslope Road Bike Lane	Airline Hwy	Memorial Drive	0.76
II	Hollister	Westside Blvd	Steinbeck Drive	South Street	0.15
II	Hollister	Westside Blvd	Nash Road	Apricot Lane	0.29
II	Hollister	Nash Road	West Street	Quail Run	0.24
II	Hollister/ County	Hwy 25 Bypass	Sunnyslope Road	San Felipe Road	2.17
				Total	**10.41**

3.1.2. Signing

Sample Bikeway Signs

Bikeway signage includes signs identifying a bike route, lane or path, as well as signs providing regulation or warnings and signs providing wayfinding. Examples are shown in **Appendix B.** Signage is important for numerous reasons. It can identify bikeway routes and can also increase bicyclist visibility and promote bicyclist presence.

The California Manual on Uniform Traffic Control Devices (CA MUTCD) and the California Highway Design Manual outline the requirements for bikeway signage. The Bike Lane Sign (R81) is required at the beginning of each designated bike lane and at each major decision point. The Bike Route Sign (D11-1) is required on Class III facilities. Multi-Use paths require additional standardized signs to help manage different user groups.

Currently, San Benito County and cities have few standard bike route signs. Among the various jurisdictions in San Benito County, there are varying policies regarding the extent and type of signaling installed along the respective public roadways and bikeways owned and maintained by each. While more extensive and uniform signing is a goal advanced by this Plan, it is nevertheless recognized that each jurisdiction will retain authority and responsibility for its own signing practices.

3.1.3. Bikeway Support Facilities

Needs for commuting bicyclists are bike racks, showers, lockers, and changing rooms at trip destinations. For bicyclists who dress more formally, travel longer distances, or bicycle during wet or hot weather, the ability to shower and change clothing can be as critical as bike storage. Bicyclists' need for bicycle storage range from a simple and convenient piece of street furniture, to storage in a bicycle locker that affords weather, theft, and vandalism protection, gear storage space, and 24-hour personal access.

A field review of San Benito County revealed that there are bicycle racks for short-term parking at:

- Abbe Recreational Park, San Juan Bautista
- Downtown Hollister on sidewalks and at bus stops
- Hollister City Hall
- Hollister Post Office
- Luck Museum, San Juan Bautista
- San Juan Bautista City Hall
- San Juan Bautista Library
- Veterans Memorial Park, Hollister

For the rest of the study area, bicyclists visiting stores, restaurants, places of employment and community facilities are largely left to their own devices to temporarily store bicycles. Many bicyclists resort to securing their bike to street fixtures such as trees, lights, telephone poles, and stop signs when parking facilities are not provided.

Bicycle Parking at San Juan Bautista Library

No official shower or locker facility for bicycle commuters is known to exist in the San Benito County area. It is likely that some employers provide these facilities, and that some bicycle commuters may use facilities in local health clubs.

While many of the schools in San Benito County and the cities provide bicycle racks, many of these racks are substandard. Vandalism and theft are due, in part, to poor placement of bicycle racks plus inadequate locking devices and techniques used by students. The lack of adequate racks is a result of

many factors, including the absence of a zoning code requirement for school bicycle parking, and a perceived lack of need.

The existing bikeway maps (**Figures 3-2** though **3-6**) show the locations of the County and cities' existing bicycle parking facilities. Recommended bicycle parking requirements are outlined in **Chapter 6**. Specific recommendations on type, placement and other details are provided in **Appendix B**.

3.1.4. Bicycle Safety Education Programs

Education is an important element for increasing bicycling while also improving safety -bikeways cannot do it alone. There is also a need for proper education of both youth and adult bicyclists and motorists. In the past, the COG has collaborated with the California Highway Patrol, the Fire Department and the Health Department to provide low cost helmets to children with financial need. Currently the COG distributes safety pamphlets on Bike to School Day.

3.1.5. Bicycle - Multimodal Connections

Improving the bicycle-transit link is an important part of making bicycling a part of daily life in the San Benito County area. Linking bicycles with transit overcomes such barriers as lengthy trips, personal security concerns, riding at night, in poor weather, or up hills. This link also enables bicyclists to reach more distant areas and increases transit ridership on weekends and during midday times.

Bicycling to transit instead of driving benefits communities by reducing taxpayer costs, air pollution, demand for park-and-ride land, energy consumption, and traffic congestion with relatively low cost investments. The existing bikeway maps (**Figures 3-2** though **3-6**) show transit stops**.**

There are four main components of bicycle-transit integration:

- Allowing bicycles on buses
- Offering bicycle parking at bus stops
- Improving bikeways to and from transit
- Encouraging usage of bicycle and transit programs

Approximately 1.3 percent of commuters use public transit in San Benito County. During the 2007/2008 fiscal year, San Benito County Express provided over 153,200 rides on its public bus system.[3-1] Public transportation within the county is provided by San Benito County Express, private taxi, and social service organizations such as Jovenes de Antaño. The San Benito County Express Fixed Route system serves Hollister and also provides shuttle service to destinations outside the county including Gavilan College in Gilroy and the Gilroy Greyhound Terminal/Caltrain Station. For people outside of the County Express Fixed Route service area, a Dial-A-Ride service is available on a reservation basis in San Juan Bautista and Tres Pinos.

[3-1] San Benito Council of Governments, *Transit Ridership Report*, July 2008

County Express buses contain front-loading bicycle racks. The buses can carry up to two bicycles on County Express Fixed Route and Intercounty shuttle services, which include the Caltrain, Gavilan College, and Gilroy Greyhound. The COG operates a Vanpool Program designed especially for commuters. Vans are also fully equipped with bike racks.

3.1.6. Encouragement and Support Programs

Encouragement and support programs are hosted by both the private sector and by public agencies. There are two shops in Hollister that provide bicycling related services. These shops – both located in Hollister – include Muenzer's Cyclery & Sports Center, Inc. and Off the Chain Bikes. Off the Chain Bikes hosts weekend bike rides. Saturday rides are designed for beginners and Sunday rides are for intermediate to advanced bicyclists. Many bicycling groups from outside the area frequently begin rides in Hollister or San Juan Bautista, including the Almaden Cycling Touring Club and other social clubs. The first annual Condor Classic Bicycle Ride was held in October 2008. The tour includes routes for experienced long-distance bicyclists as well as a shorter route catered for families.

San Benito County Rideshare Program, sponsored by the COG, offers information and assistance on alternative transportation modes, including bicycling and walking.

Events

Bike Week takes place every year in May (National Bike Month), and is sponsored by the San Benito COG Rideshare Program. Past events in the county have included a Kid's Bike Rodeo, Bike to Church Day, Bike to Work/School Day, and a Bikes Count Discount Program.

Rideshare Week is a statewide annual promotion held during the first week of October designed to heighten awareness about the benefits of using transportation alternatives, including bicycles. Rideshare week is joint effort of San Benito County Rideshare Monterey County's Commute Alternatives, and Santa Cruz's Commute Solutions.

Clean Air Month is also a statewide annual promotion. This regional annual campaign encourages commuters to try alternative forms of transportation at least four times during the month of May.

Various events offered throughout the year are geared towards pedestrians and walking such as the San Juan Bautista Chamber of Commerce's self-guided historic walking tour of the city.

In January 2008, the Council of Governments established the first Bicycle and Pedestrian Advisory Committee in San Benito Country. The Committee is composed of 14 members including representatives from school, health, and law enforcement agencies as well as City and County staff, and bicycle and walking enthusiasts.

3.2. Existing Pedestrian Facilities

This section briefly describes the general conditions and attributes that exist in the San Benito region with regard to pedestrian facilities. Although the histories and populations of the two incorporated cities are varied, the issues faced by pedestrians are similar. This summary of existing conditions has

been synthesized from a number of sources, including community workshops, surveys, communication with residents and staff members of various jurisdictions, and field work.

San Juan Bautista Sidewalk Accessibility Obstruction

3.2.1. Sidewalks

The predominantly rural character of the county and its two cities make it appropriate for many of the communities to forgo sidewalks on streets to maintain the "country" feel. However, this analysis has attempted to balance the desire to retain a rural or small-town character with the need to safely and adequately satisfy the needs of residents who need to move about safely on foot. Sidewalks provide safe connectivity for pedestrians.

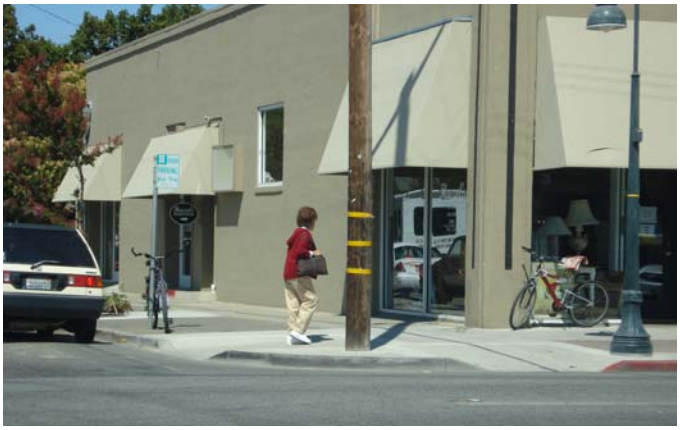
There are numerous places where sidewalks do not exist or end abruptly. For example, such a condition exists in Hollister on Sunnyslope Road. In this instance, pedestrians use a dirt path along the street. There are other examples in the county of inadequate sidewalk facilities. In San Juan Bautista, shown above, the sidewalk along 5th Street considerably limits pedestrian flow.

Other factors influence connectivity as well. One barrier cited by COG staff and residents alike were railroad crossings, particularly at South and McCray Streets in Hollister. At this location, pedestrians and bicyclists are expressly forbidden to cross the tracks by the railroad, which is inconvenient and creates a situation where some pedestrians cross unlawfully.

3.2.2. Curb Ramps

Curb ramps create a transition between the raised sidewalk and the street. Curb ramps are necessary for people who use wheelchairs as well as those with strollers and rolling carts. Properly designed curb ramps are key to accessibility features. There are many intersections in the County where conditions do not meet current minimum curb ramp guidelines. Existing curb ramps, shown below, include diagonal and perpendicular. Additional information on curb ramp design is in **Appendix C**.

Diagonal Curb Ramp in Hollister



Perpendicular Curb Ramp in Hollister

3.2.3. Physical Obstacles

A common problem on many sidewalks and paths are utility poles, fire hydrants, and other obstacles in the walkway. Additionally, there are places where vegetation, street poles, and newspaper racks encroach upon or obstruct passage.

3.2.4. Pedestrian Crossings

Pedestrian exposure to traffic at intersections can affect safety, especially for older persons and children who may not be able to cross streets quickly or discern (or be seen by) on-coming traffic. In some locations, the distance for pedestrians to cross is relatively long. In other locations, wide curb radii create long pedestrian crossings and encourage higher vehicle speed turning movements.

Pedestrian Crossing in Hollister adjacent to San Benito High School

Pedestrian crossing tools include crosswalks, in-pavement flashers, signs, and pedestrian signals and are described in **Appendix C**. There are numerous locations throughout the county with inadequate pedestrian crossing facilities. Recently, pedestrian crossing improvements have been implemented on Nash Road near San Benito High School.

3.2.5. Pedestrian Multimodal Connections

Pedestrian access to transit is a key component of a successful local pedestrian network and enables walking as a regional mode of transportation. About 1.3 percent of commuters use public transit in San Benito. Currently not all bus stops have sidewalks or pathways for pedestrian access, benches, shelters, or informational kiosks. No specific policies have been found that ensure sidewalks or pathways within the catchment zone of the bus stop. The existing bikeway maps (**Figures 3-2** though **3-6**) show transit stops**.**

Improving non-motorized access to transit is an important part of making walking a part of daily life in the San Benito area. Linking walking with public transit overcomes barriers such as trip distance, personal safety and security concerns, walking at night, in poor weather, or up hills. This link also enables pedestrians to reach more distant areas for both recreation and transportation. As with bicycling, walking to transit instead of driving benefits communities by reducing taxpayer costs, air pollution, demand for park-and-ride land, energy consumption and traffic congestion with relatively low cost investments. Typical transit access improvements include:

- Maintenance of bus stop signs
- Information kiosks providing route information and schedules
- Shelters accessible via curb ramps

- Benches
- Safe access to stops, including walkways, pathways and crossings in bus stop vicinity and within a 0.5 to 0.75-mile radius
- Wayfinding signage to/from transit stops at selected locations, for example the downtowns of Hollister and San Juan Bautista

4. Needs Analysis

This chapter presents bicyclist and pedestrian needs in the San Benito County area including an overview of land use demand, commuter bicyclist needs, pedestrian and bicycle collision analysis and community input.

4.1. Bicycle Trip Attractors and Generators

The "demand" for bicycle and pedestrian facilities can be difficult to predict. Unlike automobile use, where historical trip generation studies and traffic counts allow one to estimate future "demand" for travel, bicycle and pedestrian trip generation methods are less advanced and standardized. Land use patterns can help predict demand and are important to planning bikeways and pedestrian facilities because changes in land use (and particularly employment areas) affects average commute distance, which in turn affects the attractiveness of bicycling as a commute mode. See **Appendix A** for the land use maps of San Benito County.

While the County is predominantly agricultural, amenities such as Pinnacles National Monument, San Juan Bautista Mission, and several State, county and city parks offer recreational opportunities that are major regional destinations, contributing to a significant tourist industry.

Pinnacles National Monument is an ancient volcano along the San Andreas Rift Zone. Located 35 miles south of Hollister, the 12,818-acre area features volcanic rock spires, crags and caves. The monument is popular with climbers, hikers, and campers, attracting approximately 150,000 people annually.

Fremont Peak State Park & Observatory is a 244-acre park on the border of San Benito and Monterey Counties. It includes an astronomical observatory, one of the world's largest public observatories. Offering spectacular views and overnight camping, the area is also popular for hiking, camping, and picnicking.

San Juan Bautista Mission is a State Historical Monument located in the historic community of San Juan Bautista. It features several restored mid-1880s buildings, while the historic Mission, still an active church, is host to many activities and festivals each year. Approximately 300,000 people visit the mission annually.

San Benito County Historic and Recreation Park features the Sullivan House, the county's oldest known structure. Located two miles south of Tres Pinos along Highway 25, this 32-acre day use park offers a picnic area complete with restrooms and a well-maintained lawn. A pine forest offers visitors wildlife and bird-watching opportunities.

Bolado Park is located one half mile south of the San Benito County Historic and Recreation Park. It is managed by the 33rd Agricultural District and is home to the San Benito County Fair, Saddle Horse Show, rodeos, and popular events. The park offers year round picnicking areas as well as limited camping, in addition to use of a nine-hole golf course, pavilion, and play areas.

Hollister Hills State Vehicular Recreation Area, located 6 miles southwest of Hollister, is a 2,400-acre motorcycle activity area with 800-acres set aside for four-wheel drive vehicles. This internationally acclaimed motorcycle racetrack attracts off-road cycling enthusiasts virtually every weekend year-round as well as thousands for special events and races.

Clear Creek Recreation Area, managed by the Bureau of Land Management, consists of 50,000 acres located in the southern region of the county. Approximately 40,000 people visit the Clear Creek annually area to hunt, fish, and use off-road vehicles.

San Justo Reservoir is located 2.5 miles southwest of Hollister. Recreational opportunities include windsurfing, sailing, fishing, and picnicking.

There are 22 schools in San Benito County (**Table 4-1**) and as discussed earlier in this chapter, nearly one-third of the county's population is 18 years old or younger. This population is bicycle and walking dependant. Improved safety and accessibility to schools can increase the number of students who walk or bike to school and encourage fewer automobile trips.

Table 4-1: San Benito Schools

School	Grades	Location
Anzar High School	9-12	County
Calaveras Elementary School	K-5	Hollister
Calvary Christain School	K-12	Hollister
Cerra Vista Elementary School	K-5	Hollister
Cienega Elementary School	K-8	County
Gabilan Hills Elementary School	K-5	Hollister
Jefferson Elementary School	K-8	Paicines
Ladd Lane Elementary School	K-5	Hollister
Marguerite Maze Middle School	6-8	Hollister
Panoche Elementary School	K-8	Paicines
Pinnacles Community School		Hollister
R.O. Hardin Elementary School	K-5	Hollister
Rancho San Justo Middle School	6-8	Hollister
Sacred Heart Parish School	K-8	Hollister
San Andreas Continuation High School	9-12	Hollister
San Benito High School	9-12	Hollister
San Juan School	K-8	San Juan Bautista
Southside Elementary School	K-8	County
Spring Grove Elementary School	K-8	County
Sunnyslope Elementary School	K-5	Hollister
Tres Pinos Elementary School	K-8	Tres Pinos
Willow Grove Elementary School	K-8	Paicines

The San Benito County bikeways network will connect the neighborhoods where people live to the places they work, shop, engage in recreation, or go to school. An emphasis will be placed on regional bikeways and transit connections centered on the major activity centers, including:

1. Downtown commercial districts
2. Civic buildings such as Town Halls and libraries
3. Schools
4. Transit
5. Neighborhood parks and regional recreational areas
6. Employment centers
7. Social Services

4.2. Commuter Bicycling Needs

An April 2003 national survey conducted by America Bikes showed that Americans want to bicycle more and support building infrastructure to achieve this: "Over half of Americans (52 percent) want to bike more than they do now and a majority of the public (53 percent) favors increasing federal spending to build more bike paths for easier and safer bicycling." This suggests that there is a large reservoir of potential bicyclists who do not ride (or do not ride more) due to a lack of appropriate facilities.

Commuter bicyclists in the San Benito region range from employees who ride to work to a child who rides to school to people riding to shops. Bicycling requires shorter commutes, typically less than three miles, which runs counter to most land use and transportation policies that encourage people to live farther from where they work. Access to transit helps extend the commute range of bicyclists, but transit systems also face an increasingly dispersed live-work pattern that is difficult to serve. Despite these facts, San Benito has great potential to increase the number of people who ride to work or school because of (a) the small size of many of the cities, (b) moderate density residential neighborhoods near employment centers, (c) a favorable climate, and (d) a high percentage of work trips that are less than 15 minutes. Major employers in San Benito County are listed in **Table 4-2**.

Commuters typically seek the most direct and fastest route available, with regular adult commuters often preferring to ride on arterials, especially those with bike lanes or wide curb lanes, rather than side streets or off-street facilities. Commuters generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay. Commute periods typically coincide with peak traffic volumes and congestion, increasing the exposure to potential conflicts with vehicles. Places to safely store bicycles are of paramount importance to all bicycle commuters.

Table 4-2: Major Employers in San Benito County

Company	Address	Employees
Earthbound Farm	1721 San Juan Hwy, San Juan Bautista	1015
San Benito Foods	110 Hawkins St, Hollister 711 Sally St, Hollister	600
Hazel Hawkins Memorial Hospital	911 Sunset Drive, Hollister 3110 Southside Rd, Hollister 301 The Alameda, San Juan Bautista	520
Milgard Windows	2451 Bert Dr, Hollister	363
Pacific Scientific/Hollister Operations	3601 Union Rd, Hollister	334
Case de Fruta	Several locations	200
Graniterock Company	Quarry Rd, Aromas	200
Target	1790 Airline Hwy, Hollister	182
Corbin Pacific	2360 Technology Pkwy, Hollister	165
Ridgmark Golf and Country Club	3800 Airline Hwy, Hollister,	160
Cedar Valley Shingle Systems	943 San Felipe Rd, Hollister	142
West Marine	2395 Bert Dr, Hollister	130
Nob Hill	1700 Airline Hwy, Hollister	120
Hollister Super, Inc.	Several locations	105
Safeway	591 Tres Pinos Rd, Hollister	103

Source: San Benito Chamber of Commerce

Other major commuter concerns include traffic congestion, changes in weather (rain), riding in darkness, personal safety and security.

San Benito cities and county have high percentages of youth. Nearly one-third of the County's population is 18 or younger. This population is bicycle and walking dependant. Many younger students (ages seven to 11) use sidewalks for riding to schools or parks, which is acceptable in areas where pedestrian volumes are low and driveway visibility is high. Where on-street parking and/or landscaping obscures visibility, sidewalk riders may be exposed to a higher incidence of accidents. Older students (12 years or older) who consistently ride at speeds over 10 miles per hour (mph) should be directed to riding on-street wherever possible. Students riding the wrong-way on-street are common and account for the greatest number of recorded accidents in California, pointing to the need for safety education.

4.3. Commute Patterns

A central focus of presenting commute information is to consider the current "mode split" of people that live and work in San Benito County. Mode split refers to the choice of transportation a person selects to move to destinations, be it walking, bicycling, taking a bus, or driving. One major objective of any bicycle or pedestrian facility improvement is to increase the "split" or percentage of people who choose to bike or walk rather than drive. As is, in San Benito County approximately 4 percent of the total population does not have access to a vehicle. This suggests that there is a need for bicycle and pedestrian facilities. Additionally to the population already biking and walking, every saved vehicle trip or vehicle mile represents quantifiable reductions in air pollution and can help in lessening traffic congestion.

As shown in **Table 4-3** journey to work data was obtained from the 2000 US Census for all of San Benito County and compared to California and the United States.

Table 4-3: Journey to Work Data

Mode	San Benito County	California	United States
Bicycle	0.6%	0.8%	0.4%
Carpool	18.4%	14.6%	12.2%
Drove Alone	73.1%	71.8%	75.7%
Public Transit	1.3%	5.1%	4.7%
Walked	2.6%	2.9%	2.9%
Other	4.1%	4.8%	4.1%

Source: US Census 2000

As shown, approximately 0.6 percent of employed residents in San Benito County commute by bicycle. This rate is slightly higher than the national average bicycle commute mode share of 0.4 percent, but slightly lower than the California average bicycle mode share of 0.8 percent. The bicycling commute rate in San Benito County is in contrast with level of drive-alone commuters (73.1 percent) that is higher than the California average but lower than the national average.

The percentage of those who walk to work is higher than those who bicycle. Approximately 2.6 percent of employed San Benito County residents walk to their employment. This is lower than both the California and national walking mode share (2.9 percent).

Census data also indicates 4.0 percent of the county population does not have access to a personal vehicle and nearly one-third of the population is 18 years old or younger. This is a large population of non-drivers who must rely on others or travel by foot, bike or transit. High concentrations of of those without access to a vehicle can be found in central and southern Hollister. This data indicates a need for bicycle and pedestrian facilities to serve this population.

Travel time is important because it can give an indication of the number of potential new bicycle commuters. In many cases, a 15 minute motor vehicle commute is equivalent to a 30 minute bicycle commute on flat terrain. **Table 4-4** shows travel time to work for San Benito County, California, and the United States. San Benito County has a higher percentage of people whose travel time to work is under 15 minute. Given that 33 percent of San Benito County residents have a commute less than 15 minutes, there is an opportunity to capture some of those motor vehicle trips and convert them to bicycle commute trips.

Table 4-4: Travel Time to Work Data

Travel Time to Work	San Benito County	California	United States
Less than 15 minutes	33.0%	25.3%	29.4%
15 to 29 minutes	20.5%	35.4%	36.1%
30 to 44 minutes	15.3%	20.9%	19.1%
45 to 59 minutes	9.1%	8.2%	7.4%
60 minutes or more	22.1%	10.1%	8.0%

Source: US Census 2000

As previously noted, census data on commuting patterns is limited and tends to underestimate the true number of bicyclists in any community. First, commute trips only make up 20 percent of all trips, and people who bicycle to school, for recreation or for errands are not included in Census Journey to Work data. Second, census survey forms only allow a person to choose one mode when answering. If a commuter uses more than one mode during their trip (e.g. bicycling to San Benito Express) only the longest mode (transit) is recorded.

4.4. Collision Analysis

4.4.1. Bicycles

Safety is a major concern for bicyclists. For those who currently ride a bicycle, safety is typically an on-going concern. For those who do not, it is one of the most compelling reasons not to bike.

Many potential bicyclists cite traffic as their main objection to riding a bicycle on urban streets. The County can address this by providing good bikeway facilities particularly at intersections, where many bicycle-motor vehicle collisions occur. However, concerns about bicycling level of danger are based on the misconception that most bicycle collisions involve an automobile. In fact, the vast majority of bicycle collisions do not involve a motor vehicle; rather, studies of hospital data have shown that the majority of bicycle accidents involve falls or collisions with stationary objects, other bicyclists, or pedestrians. This points to the need for education of bicyclists and motorists, enforcement of existing laws, and encouragement of safe bicycling techniques.

Data for reported bicycle collisions in San Benito County was collected from the Statewide Integrated Traffic Records System (SWITRS) from 2002 to 2007. During this time period there was an average of 13 reported bicycle collisions per year in San Benito County.

Collision Locations

There are a number of locations where several collisions were reported:

- Nash Road and San Benito Street (6 collisions)
- San Benito Street and South Street (3 collisions)
- 4th Street and East Street (2 collisions)
- Nash Road and Powell Street (2 collisions)
- Prune Street and Nash Road (2 collisions)
- San Benito Street and 3rd Street (2 collisions)
- San Felipe Road and Gateway Driver (2 collisions)
- Sunnyslope Road and Memorial Drive (2 collisions)

Figure 4-1 shows bicycle collision and population by jurisdiction. The bicycle collisions were primarily in the northern area of the county and the specific locations are shown in **Figure 4-3** and **Figure 4-4**. These illustrate the high numbers of collisions in Hollister. The roadway types where most collisions occurred are on arterials through cities. Often these roadways have high traffic volumes, high traffic speeds, and lack of bicycle facilities.

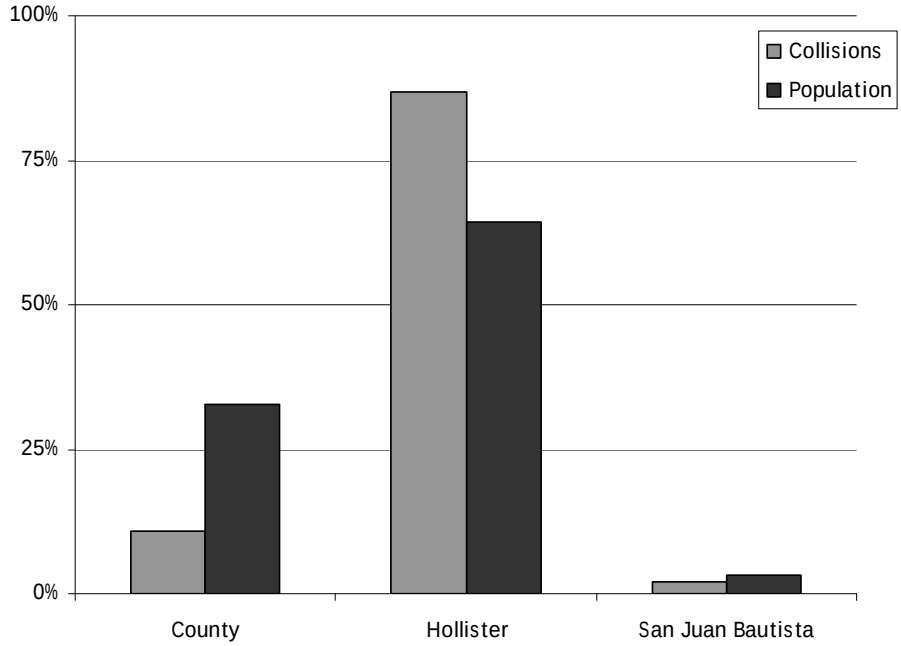


Figure 4-1: Bicycle Collision Distribution

Focused Data

More detailed review of the collision data revealed that 82 percent of the collisions occurred on weekdays. In addition, in 43 percent of the collisions, bicyclists were considered to be at fault. The most common causes of collisions were motorists failing to yield the right-of-way (22 percent) and bicyclists riding the wrong way (18 percent). The remaining collisions were spread among a wide variety of causes. The data for this time period shows 70 bicyclists were injured and two were killed in collisions.

The recommended bikeway system will help address these problem areas by identifying specific improvements (including safety and education programs) and/or providing alternative routes.

4.4.2. Pedestrians

Data for reported pedestrian collisions in San Benito County were collected from SWITRS from 2002 to 2007. During this time period, there was an average of 14 reported pedestrian collisions per year in San Benito County.

Collision Locations

There are four locations with two or more reported collisions on San Benito County's roads:

- San Benito Street and 3rd Street (3 collisions)
- Nash Road and Powell Street (2 collisions)
- San Benito Street and South Street (2 collisions)
- Tres Pinos Road and Airline Highway (2 collisions)

Figure 4-2 shows the pedestrian collision and population distribution by jurisdiction, **Figure 4-3** and **Figure 4-4** are maps of collisions in the county. These illustrate the high number of collisions in Hollister. The collisions occurred on commercial and residential streets.

Focused Data

The data revealed that 82 percent of the collisions occurred on weekdays. In 48 percent of the collisions, motorists were considered to be at fault, with pedestrians at fault 26 percent of the time, and an undetermined fault 24 percent of the time. During the six year period included in this data there were 78 pedestrian injuries and three fatalities.

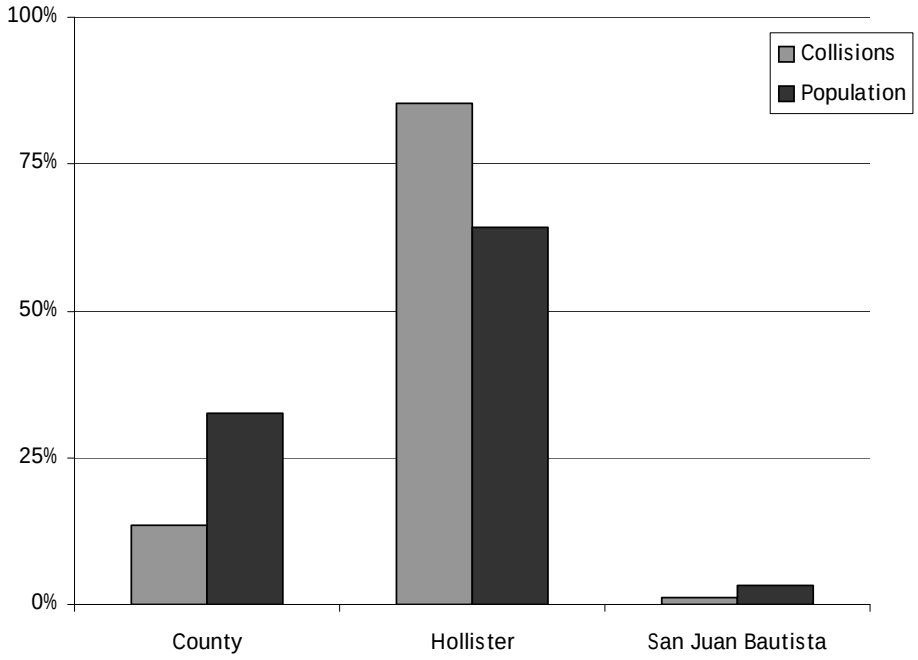
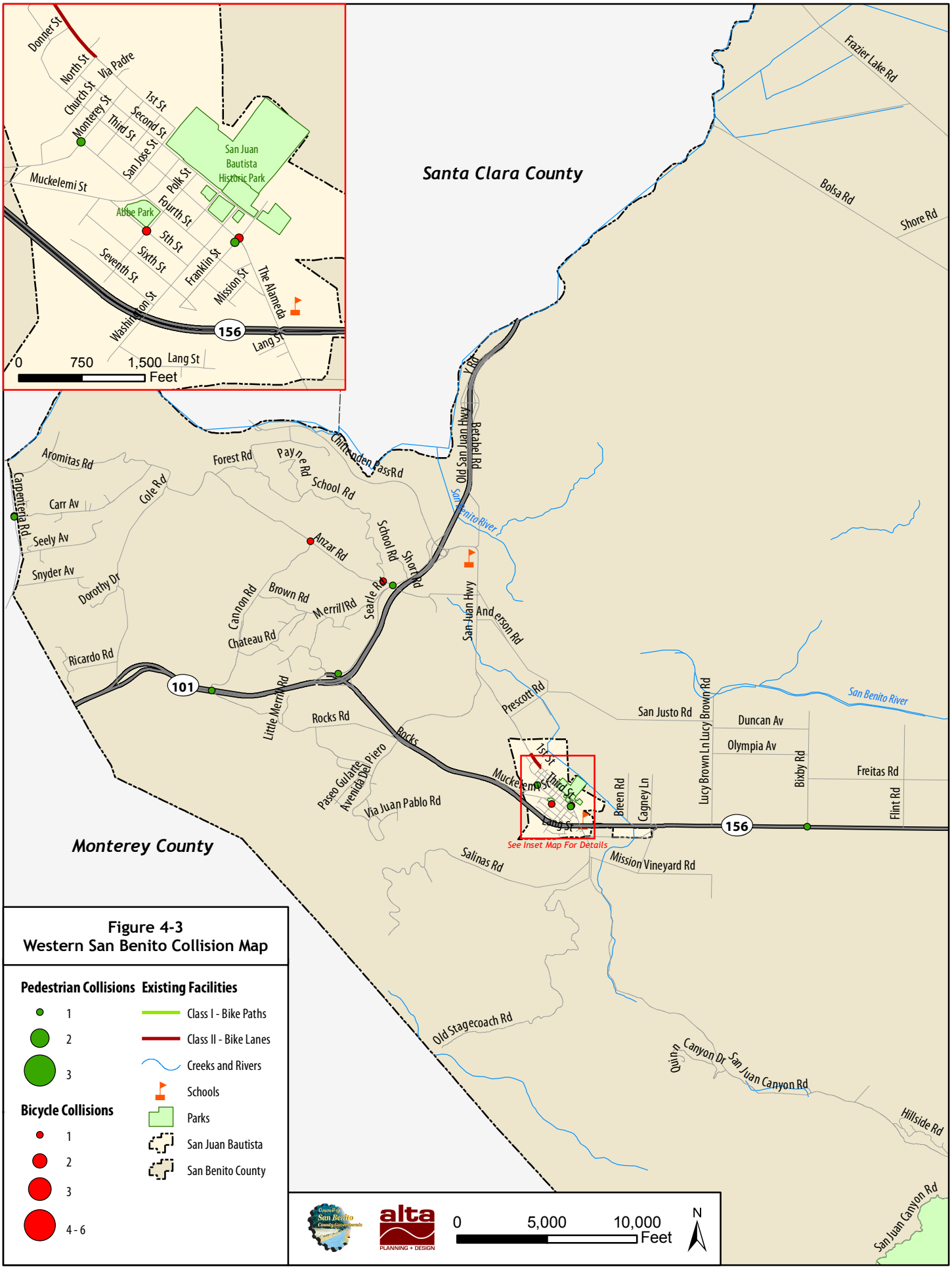


Figure 4-2: Pedestrian Collision Distribution



Source: San Benito County and ESRI.

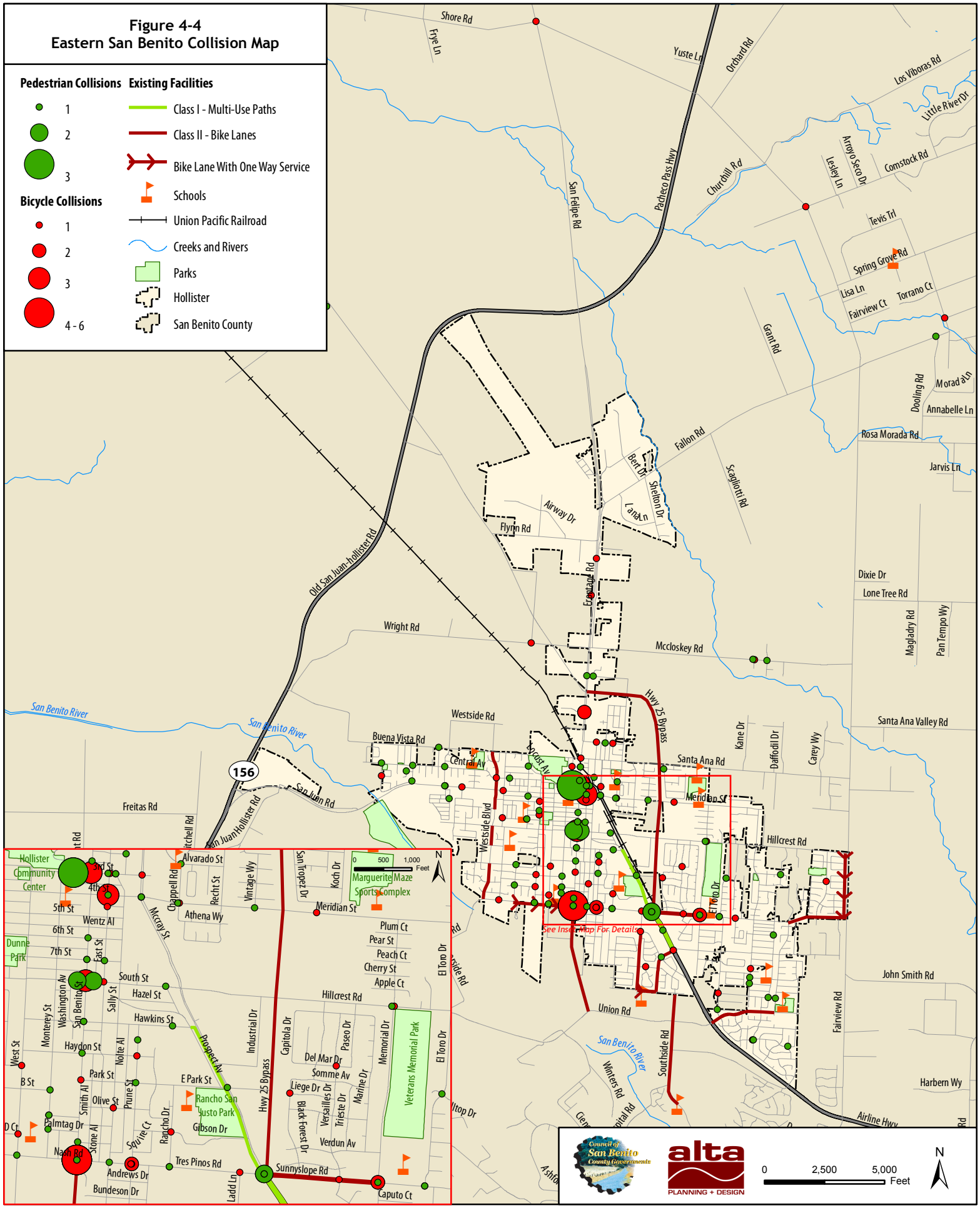


Figure 4-4
Eastern San Benito Collision Map
Pedestrian Collisions
1
2
3
Bicycle Collisions
1
2
3
4 - 6
Existing Facilities
Class I - Multi-Use Paths
Class II - Bike Lanes
Bike Lane With One Way Service
Schools
Union Pacific Railroad
Creeks and Rivers
Parks
Hollister
San Benito County
See Inset Map For Details
0 500 1,000 Feet
0 2,500 5,000 Feet
N
Source: San Benito County and ESRI.

4.5. Public Outreach

Public involvement is an important component of the San Benito County Bikeway and Pedestrian Master Plan process. The public outreach for this project included two community meetings and a survey of community members. English and Spanish flyers and surveys were distributed to the public. A Spanish translator was available at both community workshops.

Council of Governments (COG) staff also made presentations to the following groups and agencies on the County Bikeway and Pedestrian Master Plan:

- San Juan Bautista City Council
- Hollister City Council
- San Benito County Board of Supervisors
- San Benito Chamber of Commerce
- Hollister Downtown Association
- San Benito Parks and Recreation
- Hollister Parks and Recreation
- San Benito County Planning Commission
- Hollister Planning Commission

4.5.1. Community Workshops

Public outreach included two community workshops. The first community workshop was held at the Hollister Community Center on September 23, 2008. In attendance were 44 members of the public, including the Bicycle and Pedestrian Advisory Committee. At the workshop, the Plan's consultant presented the benefits of developing a bicycle and pedestrian plan, the various elements of a plan, and the types of improvements and recommendations that are in a bicycle and pedestrian plan. Members of the public then split into small groups and marked up large scaled plotted maps. On the maps, attendees marked where they currently walk and bicycle, difficult walking and biking connections, and recommendations for specific location improvements. Generally, the public recommended:

Members of the public discuss biking and walking opportunities in San Benito County

- Class I path along the San Benito River
- Class I paths connecting cities and towns

- Class II bike lanes connect community destinations such as schools, parks, and libraries
- Bikeway maintenance
- Motorist education
- Encouragement and education programs for children
- Short-term bicycle parking at commercial activity centers
- Pedestrian facilities at railroad crossings
- Sidewalk continuity
- Curb ramps at intersections

All of the above-mentioned projects and programs were included the Draft Plan and presented at the second community workshop held on February 3, 2009. In attendance were 30 members of the public, including the Bicycle and Pedestrian Advisory Committee. At the workshop, the Plan's consultant presented the bikeway and pedestrian recommendations. The public commented on the projects by marking large maps and speaking with COG staff and the Plan's consultant. The attendees also identified their top three priority projects. Those priority projects were used to develop the project ranking discussed in **Chapter 9**.

Members of the public review Plan recommendations

4.5.2. Community Survey

Another part of the public outreach process for the Bikeway and Pedestrian Plan was a survey to gather bicycle and pedestrian use and preferences in the area. The survey was provided in both English and Spanish. The survey was available online and there was a link available on the San Benito COG website. The survey was also available as a hard copy at the first community workshop and at the COG San Benito County Fair booth. A copy of the survey is included as **Appendix F**. In total, 108 people took the survey and, of the total, 74 of them live in Hollister, the largest city in the county. The survey included separate bicycle and pedestrian sections.

Bicyclist Survey

Of the respondents, over 36 percent do not bicycle but of those that do, 43 percent bike 1 to 3 days a week. The majority of these bicyclists ride five miles or less on their typical bicycle trips. Approximately 63 percent of these trips are for recreaction or exercise. The remaining 37 percent of trips are for utilitarian trips or work, errands, or school purposes.

The survey asked what the reasons are that people do not bike more often in the San Benito County region, the responses to this question are in **Figure 4-5**. The most common response was the lack of bikeways available, followed by too many cars and high speeds, and bikeways and roads are in poor condition. Responses to this question reflect that there is a need for more bicycle facilities in the county that provide a safe places for bicyclists to ride separated from traffic. The next question asked surveyors their bicycle facility type preference. As **Figure 4-6** shows, survey respondents have a strong prefernce for off-street paved paths and on-street striped bike lanes.

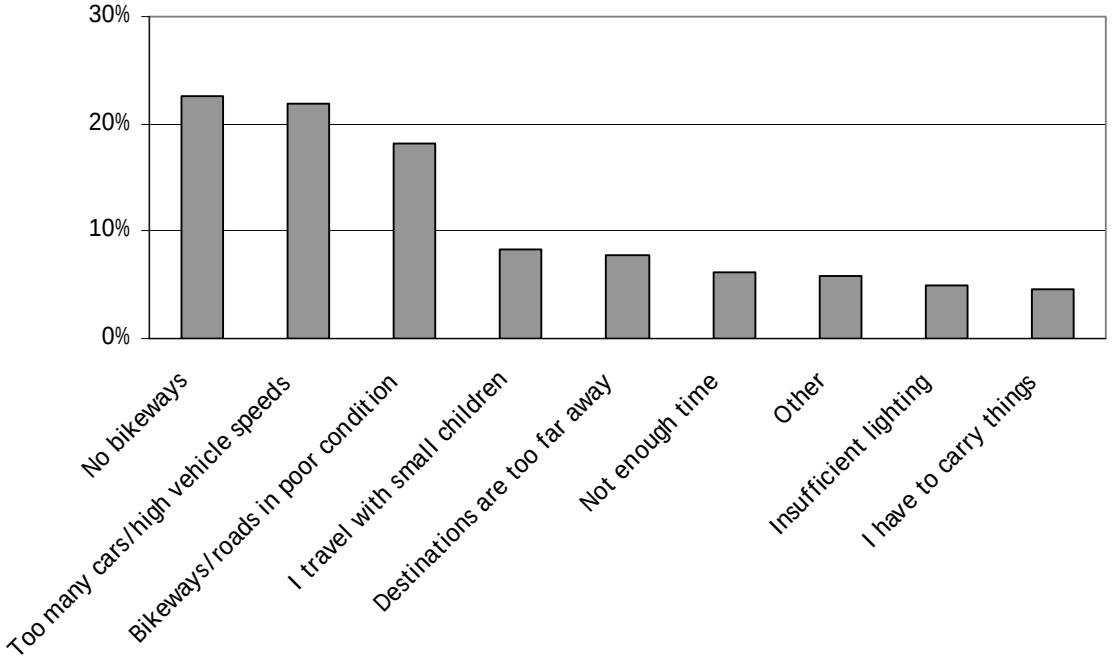


Figure 4-5: Reasons Do Not Bike More Often

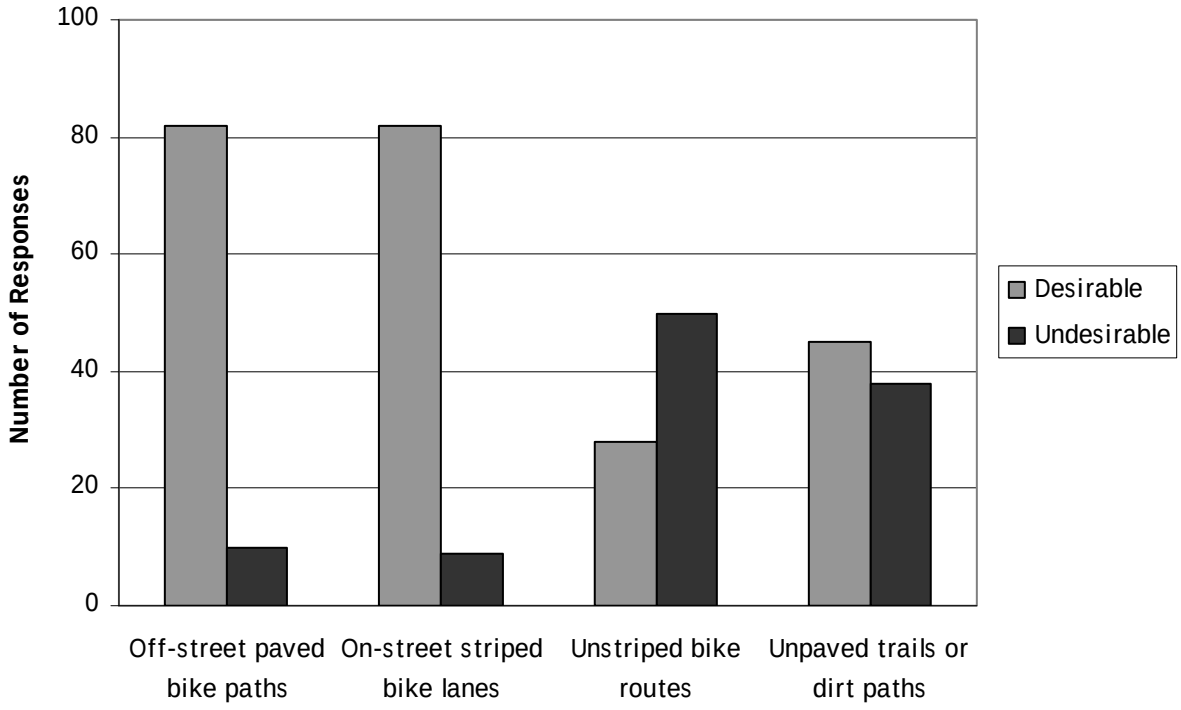


Figure 4-6: Bicycle Facility Preferences

Pedestrian Survey

The majority of survey respondents stated that their average walking trips were 1-2 miles long. Approximately, 71 percent of these trip purposes are for social, recreational, or exercise purposes. Only 29 percent of survey respondents stated that they walk for transportation purposes. Respondents stated that the majority of these trips occur on weekday mornings and evenings.

Safety is a primary reason why survey respondents do not walk more often. As **Figure 4-7** shows the majority of respondents disagree about feeling safe from cars. **Figure 4-8** shows this is the second highest response to why people do not walk more often.

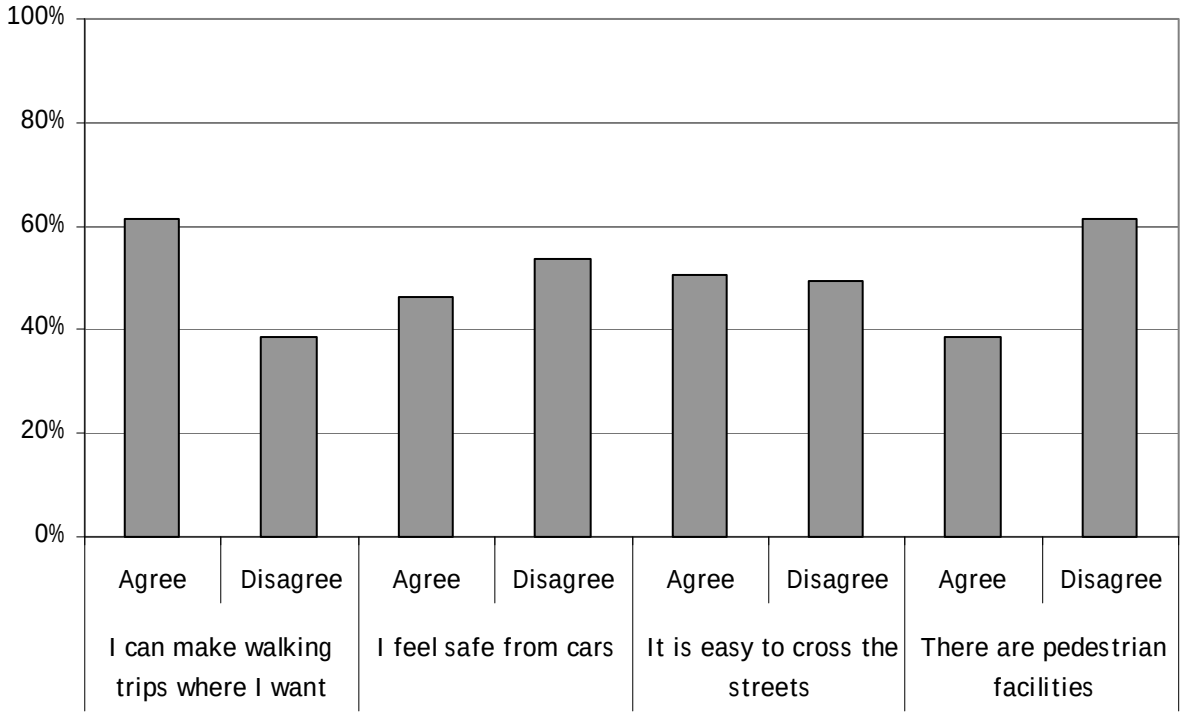


Figure 4-7: Walking Experience in San Benito County

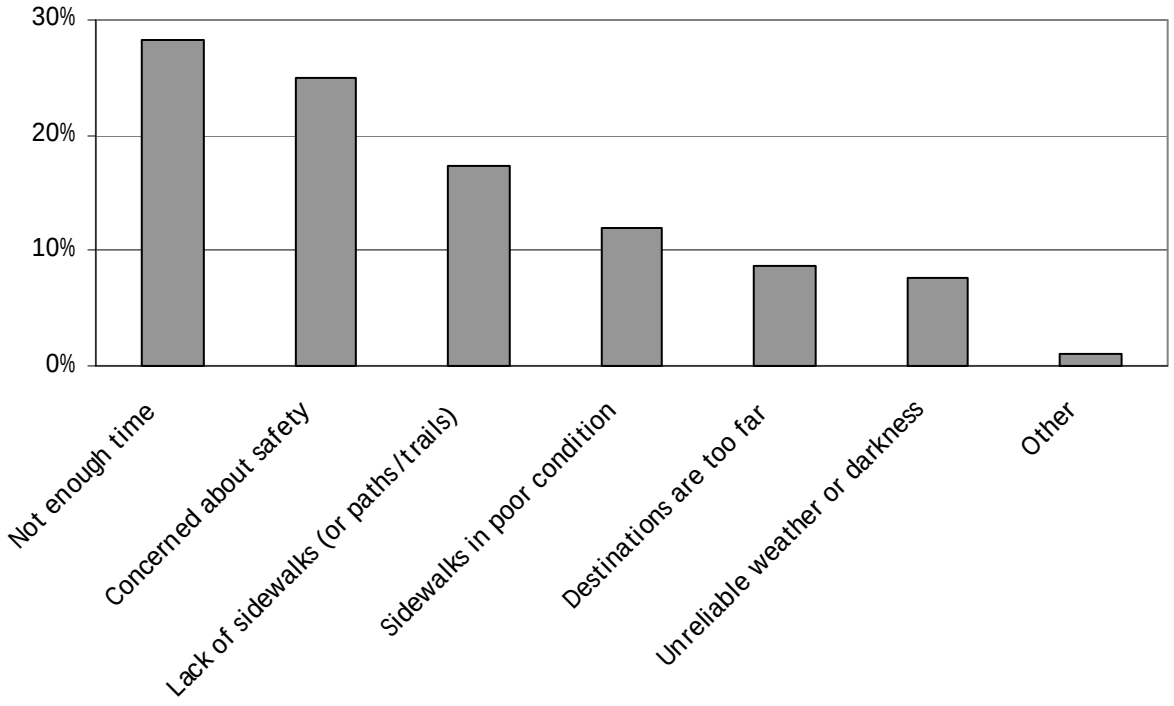


Figure 4-8: What Prevents People from Walking More Often

4.6. Existing Bicycle and Pedestrian Usage and Benefits

A key goal of the Bikeway and Pedestrian Master Plan is to maximize the number of local bicycle and walking commuters in order to help reduce traffic congestion, maintain air quality and increase healthy lifestyles. In order to set the framework for these benefits, national statistics and policies are used as a basis for determining the benefits to the San Benito region. The latent "need" for facilities – versus actual users is difficult to quantify.

Bicycling is one of the most popular forms of recreational activity in the US, with 46 percent of Americans bicycling for pleasure. If nothing else, this indicates a latent demand for facilities and a potent constituency to push for better facilities.

Mode split refers to the choice of transportation people make whether for work or non-work trips. Currently, the average household in the US generates about 10 vehicle trips per day. Work trips account for less than 30 percent of these trips on average. Using available data, there are about 7,305 walking or biking trips in San Benito County for utilitarian reasons on an average day.

Alta has developed a state-of-the-art bicycle and walking model that also estimates usage and benefits. This is the first model of its type to be based on empirical data. As shown on **Table 4-5** and **Table 4-6** there are an estimated 974 daily bicycle trips and 6,331 daily walking trips in San Benito. It is important to note that this is simply an order-of-magnitude estimate, based on available data.

Table 4-5: San Benito Existing Bicycle Use and Benefits

Existing Commuting Statistics	Figure	Source
Existing study area population	58,016	2009 CA Department of Finance
Existing employed population	22,000	2009 CA Employment Development Department
Existing bike-to-work mode share	0.56%	2000 Census, STF3, P30.
Existing number of bike-to-work commuters	123	Employed persons multiplied by walk-to-work mode share
Number of daily transit users	579	San Benito Council of Governments Transit Ridership, January-June 2008
Estimated number of daily bike to transit commuters	6	Assumes 1% of transit riders bike to transit.
Existing school children, ages 6-14 (grades K-8)	4,599	2000 Census, STF3, P8.
Existing school children bicycling mode share	5.0%	National Safe Routes to School surveys, 2003.
Existing school children bike commuters	230	School children population X school bicycling mode share
Existing number of college students in study area	2,570	Full-time undergraduate and graduate student population in study area
Existing estimated college bicycling mode share	5.0%	Review of bicycle commute share in seven university communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Existing college bike commuters	129	College student population X college bicycling mode share
Existing total number of bike commuters	487	Total bike-to-work, school, college and utilitarian bike trips. Does not include recreation.
Total daily biking trips	974	Total bicycle commuters x 2 (for round trips)
Vehicle Trips and Miles Reduction	**Figure**	**Source**
Reduced Vehicle Trips per Weekday	497	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	129,787	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	1,623	Assumes average round trip travel length of 8 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	423,722	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)
Existing Air Quality Benefits	**Figure**	**Source**
Reduced PM10 (tons/weekday)	30	0.0184 tons/mile
Reduced NOX (tons/weekday)	810	0.4988 tons/mile
Reduced ROG (tons/weekday)	118	0.0726 tons/mile
Reduced PM10 (tons/year)	7,796	0.0184 tons/mile
Reduced NOX (tons/year)	211,353	0.4988 tons/mile
Reduced ROG (tons/year)	30,762	0.0726 tons/mile
Reduced C02 (tons/year)	360,164	0.85 pounds/mile

Table 4-6: San Benito Existing Pedestrian Activity and Benefits

Existing Commuting Statistics	Figure	Source
Existing study area population	58,016	2000 Census, STF3, P1.
Existing employed population	22,00	2000 Census, STF3, P30.
Existing walk-to-work mode share	2.6%	2000 Census, STF3, P30.
Existing number of walk-to-work commuters	570	Employed persons multiplied by walk-to-work mode share
Existing work-at-home mode share	3.0%	2000 Census, STF3, P30.
Existing number of work-at-home walk commuters	332	Assumes 50% of population working at home makes at least one daily walking trip
Existing transit-to-work mode share	1.3%	2000 Census, STF3, P30.
Existing transit pedestrian commuters	216	Assumes 75% of transit riders access transit by foot.
Existing school children, ages 6-14 (grades K-8)	4,599	2000 Census, STF3, P8.
Existing school children walking mode share	11.0%	National Safe Routes to School surveys, 2003.
Existing school children walk commuters	506	School children population multiplied by school children walking mode share
Existing number of college students in study area	2,570	Full-time undergraduate and graduate student population in study area
Existing estimated college walking mode share	60.0%	Review of bicycle commute share in seven unversity communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Existing college walking commuters	1,542	College student population multiplied by college student walking mode share
Existing total number of walk commuters	3,166	Total bike-to-work, school, college and utilitarian walking trips. Does not include recreation.
Total daily walking trips	6,331	Total walk commuters x 2 (for round trips)
Vehicle Trips and Miles Reduction	**Figure**	**Source**
Reduced Vehicle Trips per Weekday	2,210	Assumes 73% of walking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	576,762	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	2,464	Assumes average round trip travel length of 1.2 miles for adults/college students and 0.5 mile for schoolchildren
Reduced Vehicle Miles per Year	643,128	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

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5. Benefits of Bicycling & Walking

5.1. Why Bicycling and Walking is Important

Bicycling and walking is important to San Benito's future due to its potential for addressing several interrelated challenges including traffic, air quality, creating a sense of community, and public health. Non-motorized transportation infrastructure can also provide economic benefits to the community. By planning a region that is more bikeable and walkable, the San Benito region can affect all of these elements and can collectively influence existing and future quality of life.

5.2. Traffic and Air Quality

Each time residents in the San Benito region choose to walk or bicycle, vehicles are removed from the road. As San Benito County, Hollister, and San Juan Bautista become more inviting to pedestrians and bicycles, increasing numbers of work, school, shopping, and recreational trips will be made on bicycle and foot. Cumulatively, this pattern may reduce traffic in some areas and improve air quality. For example, according to the World Watch Institute, a four mile bicycle trip prevents nearly 15 pounds of airborne pollutants. Measuring environmental improvements by reduction in greenhouse gases allow easy measurement and tracking of real benefits. This measurement of potential environmental benefits of San Benito's non-motorized network is described later in this chapter.

5.3. Quality of Life Benefits

Fostering conditions where walking and bicycling is accepted and encouraged increases a community's livability from a number of different criteria that are often difficult to measure but nevertheless important. In areas where people walk or ride a bicycle, there are more opportunities for chance meetings than where people generally travel by vehicle. People bicycling and walking are also more likely to talk and interact on a more human level. More activity at a slower rate provides more "eyes on the street" or people looking out for one another. All of these quality of life benefits can enhance San Benito's sense of place.

5.4. Public Health

Walking and bicycling can improve public health through an increase in activity. In recent years, public health professionals and urban planners have become increasingly aware that the impacts of vehicles on public health extend far beyond asthma and other respiratory conditions caused by air pollution. Dependency on vehicles has decreased the amount of peoples' physical activity.

There is an understanding about the connection between low levels of physical activity resulting from communities designed primarily for vehicles. Although diet and genetic predisposition contribute to these conditions, physical inactivity is now widely understood to play a significant role

in chronic diseases in the US, including coronary obesity, heart disease, stroke and diabetes.[5-1] Improving non-motorized transportation facilities may help alleviate these disorders. As **Figure 5-1** shows, there is a direct link between walking, bicycling, and transit use and obesity. In comparison to listed European countries and Canada, the US has a higher rate of obesity and a lower percent of walking, bicycling, and public transportation use.

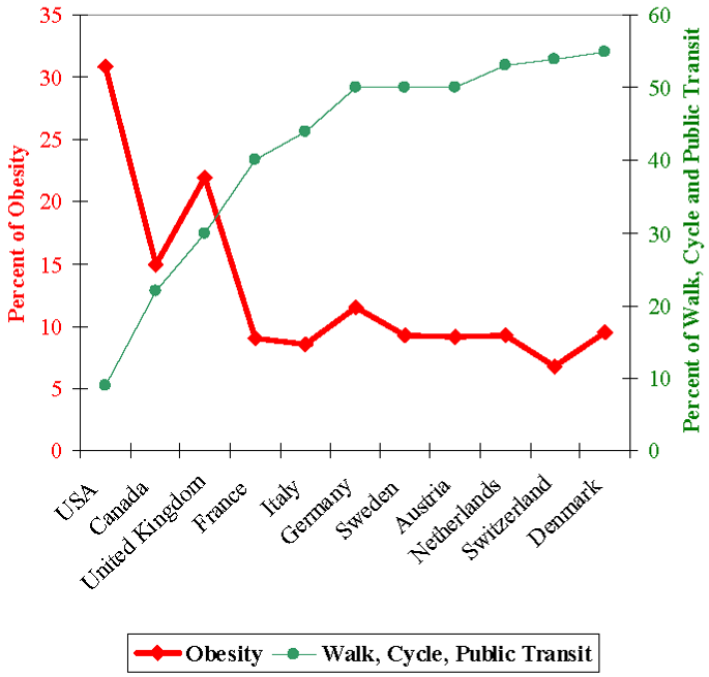


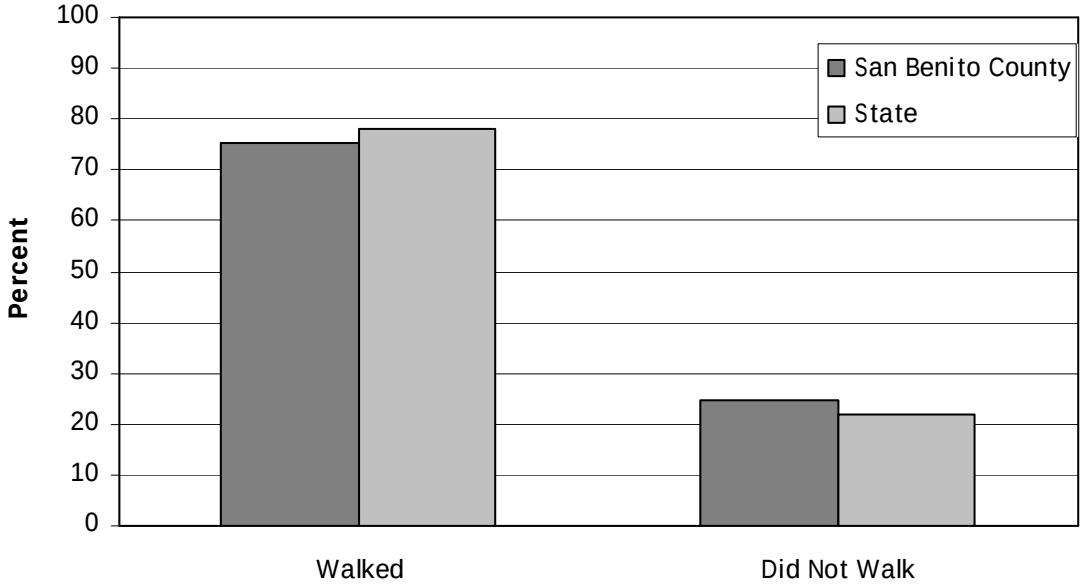
Figure 5-1: Transportation and Obesity Rates[5-2]

In response to these trends, the public health profession advocates for walkable neighborhoods and bikeable communities as effective ways to encourage active lifestyles. As San Benito and its communities become more walkable and bikeable, the population will have more opportunities to exercise and potentially decrease related chronic disease. Data shows that San Benito County has low walking rates and high obesity rates.

Figure 5-2 shows that walking statistics for San Benito County are a small margin less than statewide statistics. The Figure shows responses to the survey question: "Have you walked for transportation, fun, or exercise during the past week?" As shown, over 20 percent of San Benito County and California respondents did not walk for any purpose in the previous week.

5-1 McKenna, M.T., Taylor, W.R., Marks, J.S., & Koplan, J.P., "Current issues and challenges in chronic disease and control" in Chronic Disease Epidemiology and Control, 2nd edition, American Public Health Assn. , 1988.

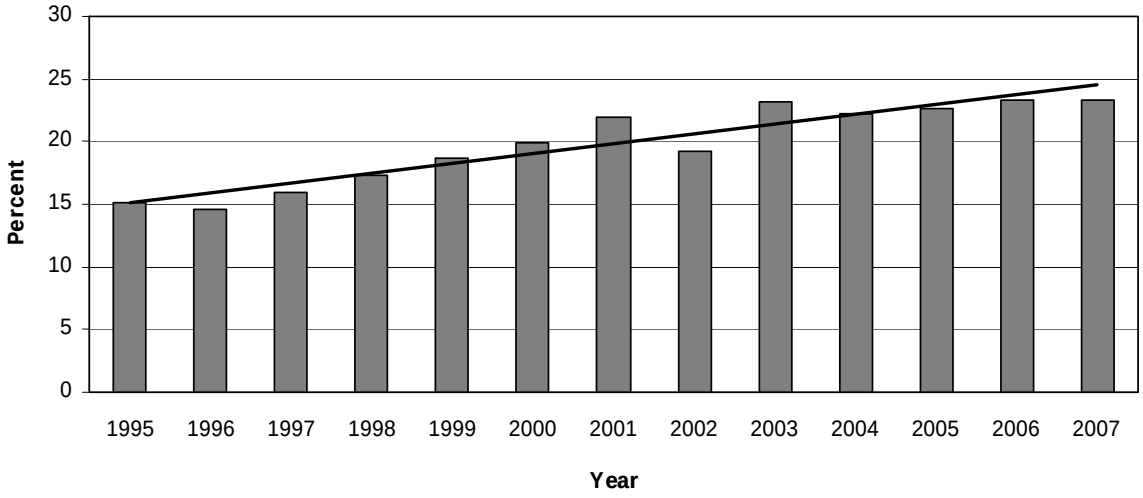
5-2 Pucher and Dijkstra, "Promoting Safe Walking and Cycling to Improve Public Health, Am Journal of Public Health, September 2003.



Source: California Health Interview Survey

Figure 5-2: Walking Trips in Previous Week for Transportation, Fun, or Exercise

Physical inactivity can lead to the growing trend of obesity. As **Figure 5-3** shows, in California obesity or body mass index (weight in kilograms divided by height in meters squared, abbreviated to BMI) has been rising for the last twelve years. Like the state of California, San Benito County also has a trend of obesity.



Source: CDC Behavioral Risk Factor Surveillance System

Figure 5-3: Annual Obesity in California by Body Mass Index

Figure 5-4 shows a comparison of BMI between San Benito and California. BMI is categorized into four categories, underweight, normal, overweight and obese. As shown, approximately 75-percent of respondents in San Benito are either overweight or obese. This is higher than the state totals.

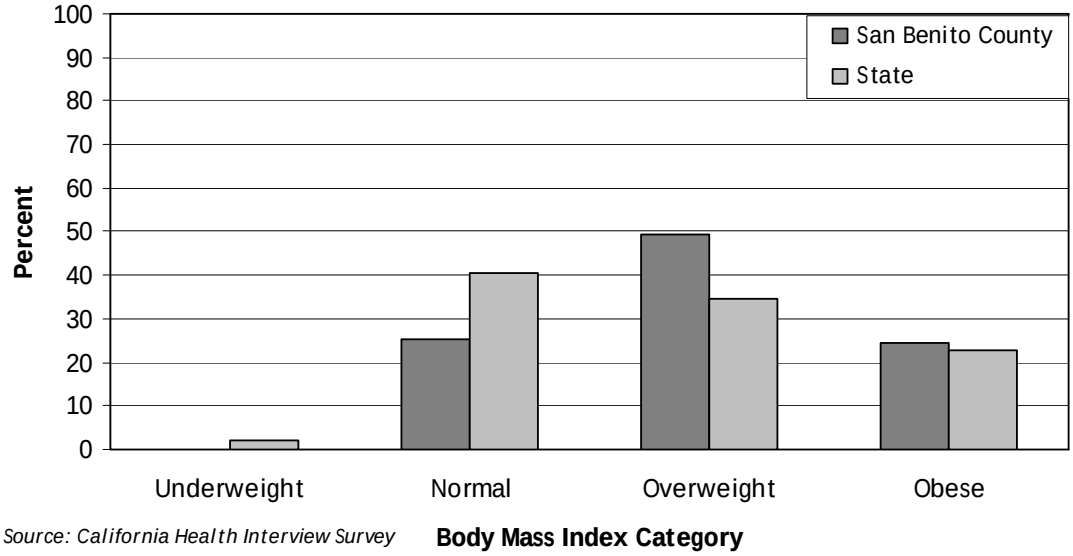


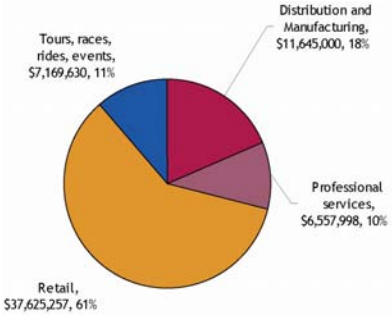
Figure 5-4: 2007 Body Mass Index Statistics for Adults

Obesity alone is a health issue and it can also lead to other chronic diseases such as heart disease and diabetes. According to the San Benito County Public Health Department, heart disease was the leading cause of death in 2008 in the County. By providing a bicycle and pedestrian-friendly environment, more people may walk or bicycle and help reverse these health trends.

In addition to individual health benefits, physical activity provides fiscal rewards to the entire community with a reduction in health care costs and lost days of work. A report prepared for the Centers for Disease Control and Prevention found that the annual per capita cost of building and maintaining bicycle trails was $209.28 per person, whereas the per capita annual direct medical benefit of using the trail was $564.41 per person. This indicates that every $1 spent on building bicycle facilities returns $2.94 in medical benefits.[5-3]

5.5. Economic Benefits

With the fluctuating expense of gasoline, bicycling and walking can be a more economic mode of transportation than driving a vehicle for residents in the area. By encouraging the use of bicycles and walking, residents will save money on gas and then spend it elsewhere in the local economy. Additionally, building local pride and international recognition for San Benito County's non-motorized infrastructure and events will likely increase the attraction of the region for tourists interested in conferences, races, and other related events and associations. Developing these facilities can potentially enhance the economy through tourism dollars.



Portland, Oregon has developed a robust bicycle economy

5-3 Wang, Macera, Scudder-Soucie, Schmid, Pratt, and Buchner. 2005. A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails. Health Promotion Practice 6(2) 174-179.

5.6. Future Usage and Benefits

Alta has developed a state of the art bicycle and walking model that estimates usage and benefits. This is the first model of its type to be based on empirical data. **Table 5-1** and **Table 5-2** quantify the estimated reduction in vehicle miles traveled and estimated reduction in air pollutants in San Benito following implementation of the bicycle network and pedestrian improvements, as well as an increase of bicycle mode share from 0.56 percent to 1.0 percent.

Table 5-1: San Benito Future (Year 2020) Bicycle Use and Benefits

Future Commuting Statistics	Figure	Source
Future study area population	76,140	AMBAG Regional 2008 Forecast (2020)
Future employed population	19,050	AMBAG Regional 2008 Forecast (2020)
Future bike-to-work mode share	1.0%	Potential mode share increase
Future number of bike-to-work commuters	191	Employed persons multiplied by bike-to-work mode share
Future number of transit commuters	666	Assumes 15% increase in transit commuters
Future number of bike-to-transit commuters	7	Assumes 1% of transit riders bike to transit.
Number of workers with commutes nine minutes or less	3,925	US Census 2000
Number of workers already bicycle/walk to work	728	US Census 2000
Number of potential bicycle commuters	3,197	Calculated by subtracting number of workers who already bicycle or walk from the number of workers who have commutes 9 minutes or less
Future number of new bicycle commuters	320	Based on capture rate goal of 10% of potential bicycle riders
Future school children, ages 6-14 (grades K-8)	6,950	Estimate this number based on historic population trends
Future school children bicycling mode share	5.0%	Estimate of the potential mode share
Future school children bike commuters	348	School children population X school bicycling mode share
Future number of college students in study area	3,884	Estimate this number based on historic college student population trends
Future estimated college bicycling mode share	5.0%	Estimate of the potential mode share
Future college bike commuters	194	College student population X college bicycling mode share
Future total number of bicycle commuters	1,059	Total bike-to-work, school, college and utilitarian walking trips. Does not include recreation.
Future total daily biking trips	2,117	Total bike trips x 2 (for round trips)
Future Vehicle Trips and Miles Reduction	**Figure**	**Source**
Reduced Vehicle Trips per Weekday	703	Assumes 73% of biking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	183,550	261 weekdays per year
Reduced Vehicle Miles per Weekday	3,235	Assumes average one-way trip travel length of 4.6 miles for adults. Assumes 12 mph average bicycle speed; 23 minute average travel time. Travel time data from NHTS 2001 Trends, Table 26.
Reduced Vehicle Miles per Year	844,332	261 weekdays per year
Future Air Quality Benefits	**Figure**	**Source**
Reduced PM10 (tons/weekday)	60	0.0184 tons/mile
Reduced NOX (tons/weekday)	1,614	0.4988 tons/mile
Reduced ROG (tons/weekday)	235	0.0726 tons/mile
Reduced PM10 (tons/year)	15,536	0.0184 tons/mile
Reduced NOX (tons/year)	421,153	0.4988 tons/mile
Reduced ROG (tons/year)	61,298	0.0726 tons/mile
Reduced C02 (tons/year)	717,682	0.85 pounds/mile

Table 5-2: San Benito Future (Year 2020) Pedestrian Activity and Benefits

Future Commuting Statistics	Figure	Source
Future study area population	76,140	AMBAG Regional 2008 Forecast (2020)
Future employed population	19,050	AMBAG Regional 2008 Forecast (2020)
Future walk-to-work mode share	3.0%	Estimate of the potential mode share increase
Future number of walk-to-work commuters	572	Employed persons multiplied by walk-to-work mode share
Future work-at-home mode share	3.0%	Estimate based on historic work-at-home trends
Future number of work-at-home walk commuters	286	Assumes 50% of population working at home makes at least one daily walking trip. Change the formula in this cell if the percentage is expected to increase or decrease
Future transit-to-work mode share	2.0%	Make a logical estimate of the potential mode share increase (or decrease) associated with planned/proposed pedestrian system improvements and transit service improvements/reductions
Future transit pedestrian commuters	286	Assumes 75% of transit riders access transit by foot.
Future school children, ages 6-14 (grades K-8)	6,950	Estimate this number based on historic population trends
Future school children walking mode share	15.0%	Estimate of the potential mode share
Future school children walk commuters	1,043	School children population X school bicycling mode share
Future number of college students in study area	3,884	Estimate this number based on historic college student population trends
Future estimated college walking mode share	75.0%	Estimate of the potential mode share
Future college walking commuters	2,913	College student population X college bicycling mode share
Future total number of walk commuters	5,099	Total bike-to-work, school, college and utilitarian walking trips. Does not include recreation.
Future total daily walking trips	10,197	Total walk commuters x 2 (for round trips)
Future Vehicle Trips and Miles Reduction	**Figure**	**Source**
Reduced Vehicle Trips per Weekday	3,513	Assumes 73% of walking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	917,007	261 weekdays per year
Reduced Vehicle Miles per Weekday	3,829	Assumes average round trip travel length of 1.2 miles for adults/college students and 0.5 mile for schoolchildren
Reduced Vehicle Miles per Year	999,456	261 weekdays per year
Future Air Quality Benefits	**Figure**	**Source**
Reduced PM10 (tons/weekday)	70	0.0184 tons/mile
Reduced NOX (tons/weekday)	1,910	0.4988 tons/mile
Reduced ROG (tons/weekday)	278	0.0726 tons/mile
Reduced PM10 (tons/year)	18,390	0.0184 tons/mile
Reduced NOX (tons/year)	498,529	0.4988 tons/mile
Reduced ROG (tons/year)	72,561	0.0726 tons/mile
Reduced C02 (tons/year)	849,538	0.85 pounds/mile

6. Recommended Bikeway Improvements

This chapter discusses recommendations for the San Benito County regional bikeway network. Fieldwork was completed to identify locations for future bikeways and support facilities. The final recommended network sets up a system of bikeways that are approximately one-quarter (1/4) mile apart in developed areas.

Improvement recommendations are based on best practices and are supplemented by:

- Council of Governments (COG) Board of Directors input
- COG staff input
- Bicycle and Pedestrian Advisory Committee (BPAC) input
- Technical Advisory Committee (TAC) input
- Public input
- Review of existing planning efforts
- Local knowledge and experience of the consultant team

Projects are organized into Countywide, Unincorporated and Incorporated Area (Hollister and San Juan Bautista) Projects.

6.1. Countywide Projects

Countywide projects refer to facilities that should be implemented countywide, both in the incorporated and unincorporated areas and may require coordination between the COG, the County, Hollister and San Juan Bautista. This coordination can begin with the existing BPAC that includes members from all of these jurisdictions.

6.1.1. MUTCD Signing, Stenciling, and Striping

All bikeways on public roadways in the region should conform to the signing, stenciling and striping standards identified in the Caltrans Highway Design Manual and/or the California Manual on Uniform Traffic Control Devices (CA MUTCD). These documents provide specific guidance on the type and location of signing, stenciling, and striping for bicycle facilities

6.1.2. Wayfinding and Share the Road Signage

Wayfinding signage enhances a bikeway network by providing bicyclists directional guidance to facilities and significant local and regional destinations. Implementing a well-planned, attractive, and effective wayfinding signage greatly enhances bikeway facilities by promoting their presence to both existing and potential users. Currently, the region has only a few standard bike route signs. While some local street connections are identified within communities, very few continuous countywide routes are identified.

Figure 6-1: Bike Route Wayfinding Signage

Figure 6-2: Share the Road Signage

It is recommended that the COG work with its jurisdictions to judiciously install a system of signs based on the completed bikeway network for bicyclists navigating around the study area and accessing local destinations. This signage program would work as a map on the street by identifying designated routes and connecting them to key regional destinations.

All wayfinding signs on public roadways in Hollister, San Juan Bautista, and San Benito County should conform to the signage identified in the current version of the CA MUTCD. All signs should convey the "Four Ds": Direction, Destination, Distance and Distinction. The COG's jurisdictions should consider using D11-1 Bike Route Signs in conjunction with the D1 Series Bicycle Guide Signs (**Figure 6-1**) as part of the wayfinding system. **Appendix B** has a more detailed description of these signs.

In addition, the COG should coordinate installation of Share the Road signs (**Figure 6-2**) into the wayfinding system as needed on rural roads. A Share the Road sign should be placed immediately adjacent to all "Welcome to San Benito County" and similar signage and on any bikeway to alert motorists that they should expect to see bicyclists on the roadway. Share the Road signs are also recommended at key locations such as before blind corners or locations where motorist sight lines are compromised. Other locations such as narrow and/or winding sections of road should also be considered for Share the Road sign placement.

6.1.3. Bicycle Parking and End of Trip Facilities

Existing Bicycle Rack at the Post Office in San Juan Bautista

Bicyclists' needs for bicycle parking range from simple and convenient street furniture to storage in a bicycle locker. It should provide weather, theft and vandalism protection, gear storage space, and 24-hour personal access. Bicycles are one of the most stolen items in all communities, with components being stolen even when a bicycle is securely locked. Theft can be a serious deterrent to riding, especially for low-income riders or those with particularly expensive or rare bicycles. Where parking needs of bicyclists fall on this spectrum is determined by several factors:

- **Type of trip:** whether or not the bicycle will be left unattended all day or for a few minutes
- **Security of area:** determined by bicyclist perception
- **Value of the bicycle:** the more a bicyclist has invested in a bicycle, the more concern they have for theft protection or how prone a given area is to bicycle theft

The goal of the bicycle parking project is to provide a cost-effective way to procure racks in bulk for distribution to the entire San Benito County area and to provide bicycle rack specification and guidelines for installation that will ensure quality control for bicycle parking. This project will provide for improved bicycle parking near commercial and developed land uses.

At the public workshop held in September 2008, community members expressed a desire for additional bicycle parking in commercial and mixed use districts and at community destinations. Existing bicycle parking is limited in most areas and can often be obstructed by other street furniture. The 2008 Hollister Downtown plan recommends two bicycle racks on each block face with additional racks near public places. This recommendation should be applied to all mixed use, retail and commercial areas. Additionally, it is recommended that civic destinations such as libraries, parks, and schools provide bicycle parking. Specific locations that would benefit from bicycle parking include:

- San Benito Street, Hollister
- Rancho San Justo Park, Hollister
- Marguerite Maze Sports Complex, Hollister
- Mission San Juan Bautista, San Juan Bautista
- San Juan Bautista State Historic Park, San Juan Bautista

Another need for some commuting bicyclists is showers, lockers, and changing rooms at trip destinations. For bicyclists who need to dress more formally, travel longer distances, or bicycle during wet or hot weather, the ability to shower and change clothing can be as critical as bicycle storage.

Appendix B provides sample bicycle parking requirements that could be adopted by San Benito County and the incorporated cities. It includes design and spacing recommendations.

6.1.4. Multi-Modal Connections

Improving non-motorized access to transit is an important part of making bicycling a part of daily life in the San Benito region. Linking bicycles with public transit overcomes barriers such as trip distance, personal safety and security concerns, riding at night, in poor weather, or up hills. This link also enables bicyclists to reach more distant areas for both recreation and transportation. **Figures 6-4, 6-5, 6-6, 6-7 and 6-8** show existing transit stops.

Bike Parking at a Bus Stop in Hollister

The transit agencies operating in San Benito County should continue to allow bicycle access on all buses with bus mounted bicycle racks. Bicycle travel to bus stops should be enhanced to make the transfer between bicycle and transit travel as convenient as possible. Enhancing access could include bikeways connecting the community to bus stops and additional bike racks at bus stops.

6.1.5. Bicycle Detection Project

Bicycle detection at signalized intersections can provide a substantial safety improvement for bicyclists and motorists. This is particularly true in rural areas where signals are found at crossings of state highways and other major roads. Loop detectors at signalized intersections allow motorists to trigger a traffic light. The following recommendations are intended to expand typical detection loop efforts to include bicycles along designated routes and at key intersections by providing improvements such as calibration of existing detectors, installation of new detectors and installation of stencils. In addition, these recommendations should be incorporated into new development requirements where signalized intersections are proposed.

Regularly Calibrate Loop Detectors

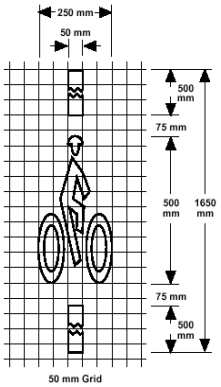


Figure 6-3:
Bicycle Detection Marking

While loop detectors facilitate faster and more convenient motorist trips, if they are not calibrated properly or stop functioning, they can make bicyclists wait excessively for signals to change, unaware that the loop is not detecting their bicycle. Where appropriate, all existing loops should be tested annually and calibrated and operable for bicyclists. Impatient bicyclists may take more risks, crossing streets when not permitted.

Apply Pavement Stenciling Above All Bicycle Loop Detectors

Since most bicyclists, as well as motorists, do not know how loop detectors work, a pavement stencil that shows bicyclists where to stop to activate a loop should mark all detectors expected to be used by bicyclists. **Figure 6-3** shows the Caltrans Standard Plan 24C bicycle detection marking. Educational materials distributed by the COG should describe how to activate bicycle loop detectors. Stencils should be repainted when needed.

6.1.6. Maintenance

Routine maintenance of bikeway facilities is a critical and often an overlooked element of bikeway planning. Maintenance includes street sweeping of bicycle lanes and shoulders, repainting/replacing bicycle lane striping lines, and replacing missing or damaged signage. This plan recommends the following maintenance related actions to improve bicycle conditions:

- **Street sweeping.** As motor vehicles travel along the roadway, debris is pushed to the outside lanes and shoulder. Debris also collects at the center of intersections. Roads striped with bike lanes or designated as bicycle routes should be swept more frequently than roads without designated bikeways because these have higher volumes of bicyclists. Street sweeping on these roadways should include removing debris on the shoulder and at intersections.
- **Proactively sweep streets after collisions.** In addition to regular street sweeping, the County and cities should work closely with the local law enforcement to ensure that streets are swept after automobile collisions.

- **Minor repairs and improvements.** Potholes and cracks along the shoulder of roadways primarily affect bicyclists and should be completed within a timely manner. All repairs should be flush to the existing pavement surface.
- **Drainage grates.** When repaving or maintaining roadways, drainage grates should be inspected to ensure that grate patterns are perpendicular to the road. Replacement of bicycle-unfriendly drainage grates should be standard.
- **Street resurfacing.** When streets are resurfaced, utility covers, grates and other in-street items should be brought up to the new level of pavement. Similarly, the new asphalt should be tapered to meet the gutter edge and provide a smooth transition between the roadway and the gutter pan.
- **Proactive identification of and response to maintenance needs.** The COG should consider a 24-hour phone hotline and online request service to identify needed repairs to roadways. The COG can promote this service as a way of identifying maintenance needs for on-street bikeways and paths.
- **Regular Maintenance of shared-use paths.** Shared-use paths require regular maintenance, including trimming adjacent vegetation, sweeping, plowing, and removing trash and debris. Paths should be monitored on a weekly basis checking paving surfaces, debris and litter, signage, and vandalism and schedule maintenance repairs.
- **Actively coordinate with maintenance workers.** Maintenance workers should be involved in the development of bicycle related maintenance policies to ensure that County and cities' staff and maintenance workers understand the needs and limitations.

6.2. Unincorporated Area Projects

The following bikeway projects are comprised of specific recommended improvements in unincorporated areas of San Benito County. The recommendations focus on connecting communities, recreational opportunities, addressing routes used by bicyclists, opportunities and constraints, and input provided by the public at the public workshops.

One of the key elements of a countywide bicycle network is connecting communities through direct and feasible proposed bikeway improvements. A bikeway network is a system of bikeways that for a variety of reasons – safety, convenience, destinations served, attractiveness, economic development opportunities – provides a superior level of service for bicyclists. The bikeway network serves as a tool that allows the COG, County and Cities to focus and prioritize bicycle facility implementation efforts where they will provide the greatest benefit to bicyclists and the community at large. Establishment of a network does not imply that bicycles should not be accommodated on streets not in the network, however, bicyclists are legally allowed on all streets and roads regardless of whether they are part of the designated bikeway network.

6.2.1. Unincorporated County Bikeway Network

In San Benito County, there are a number of opportunities for community connections between Hollister, San Juan Bautista, and the unincorporated towns. San Benito County has numerous unincorporated towns such as Tres Pinos, Paicines, and Aromas. The recommended bikeway network for unincorporated San Benito County is shown in **Figures 6-4, 6-5** and **6-6**. The system of bikeways is

classified into the standard Caltrans Class I, II, and III bikeway categories discussed in **Appendix B**. The system and segments may change over time as a result of changing bicycling patterns and implementation constraints and opportunities.

The recommendations were developed on the following guidelines:

- Needs of various user groups – Facility addressing the needs of various types of bicyclists
- Existing Bicycling Patterns – Preferred bicycling patterns, identified by the community in public workshops, members of the BPAC, and local jurisdiction staff
- Connectivity – Increased system connectivity by providing bikeway connections to major destinations
- Traffic volumes and travel speeds – Traffic volume and travel speeds were taken into account in determining type of alignment of facility
- Existing roadway width and right-of-way – Availability of width determines the type of facility that is feasible
- Public input – Public input on needs and recommendations

A variety of concerns have been expressed about the rural roads throughout the county. These routes are the primary inter-community routes for bicycling that have limited opportunity for widening and additional paving but require some increased level of bicycle accommodation. These projects should be coordinated with roadway improvement projects when possible, such as lane modifications and updated striping plans.

These projects provide a mechanism to address specific concerns at locations along San Benito County's rural roads, which could be addressed through a combination of the following treatments:

- Bike route wayfinding signs (minimum treatment)
- Shoulder widening or new shoulders, especially on uphill sides of the roads
- Travel lane re-striping where excess width is available
- New or improved turnouts and passing areas
- Speed limit reduction where supported by speed studies

Table 6-1 lists the recommended Class I Multi-Use Path Projects in the unincorporated county. A multi-use path provides for bicycle travel on a paved right-of-way completely separated from streets or highways. These three recommended facilities can be popular for recreational bicycling as well as for commuting. The San Benito River Bike Trail will begin on San Juan Road and follow the river to Airline Highway. The Union Pacific Rail Road (UPRR) project will run from the county line to the Hollister city limits, providing nearly nine miles of recreational path. The UPRR path extends through Hollister, this section of the path is described in section 6.3.1, Hollister Bikeway Projects.

Recommended facilities that span more than one jurisdiction have been segmented and organized according to jurisdiction. Many facilities weave between a city and county and have therefore been identified by segment number.

Table 6-1: Unincorporated Class I Multi-Use Path Projects

ID	Location	From	To	Length (Miles)
U-1	San Benito River Trail	San Juan Bautista Park	Airline Hwy	15.35
U-2	UPRR	North St	County Line	8.57
U-37	Southside School Connection	San Benito River Trail	Southside School	0.68
U-38	Southside Rd	Bend in Southside Rd	Pinnacles Community School	0.90
			Total	25.50

A Class II bike lane is recommended for Highway 156 between Hollister and San Juan Bautista

Table 6-2 outlines the recommended Class II Bike Lanes for the unincorporated areas of the county. Bike lanes provide a signed, striped, and stenciled lane for one-way travel on both sides of a street or highway. Class II bikeways are typically recommended where traffic volumes require channelization of motorized and non-motorized users in order to achieve safer operations.

Table 6-2: Unincorporated Class II Bike Lane Projects

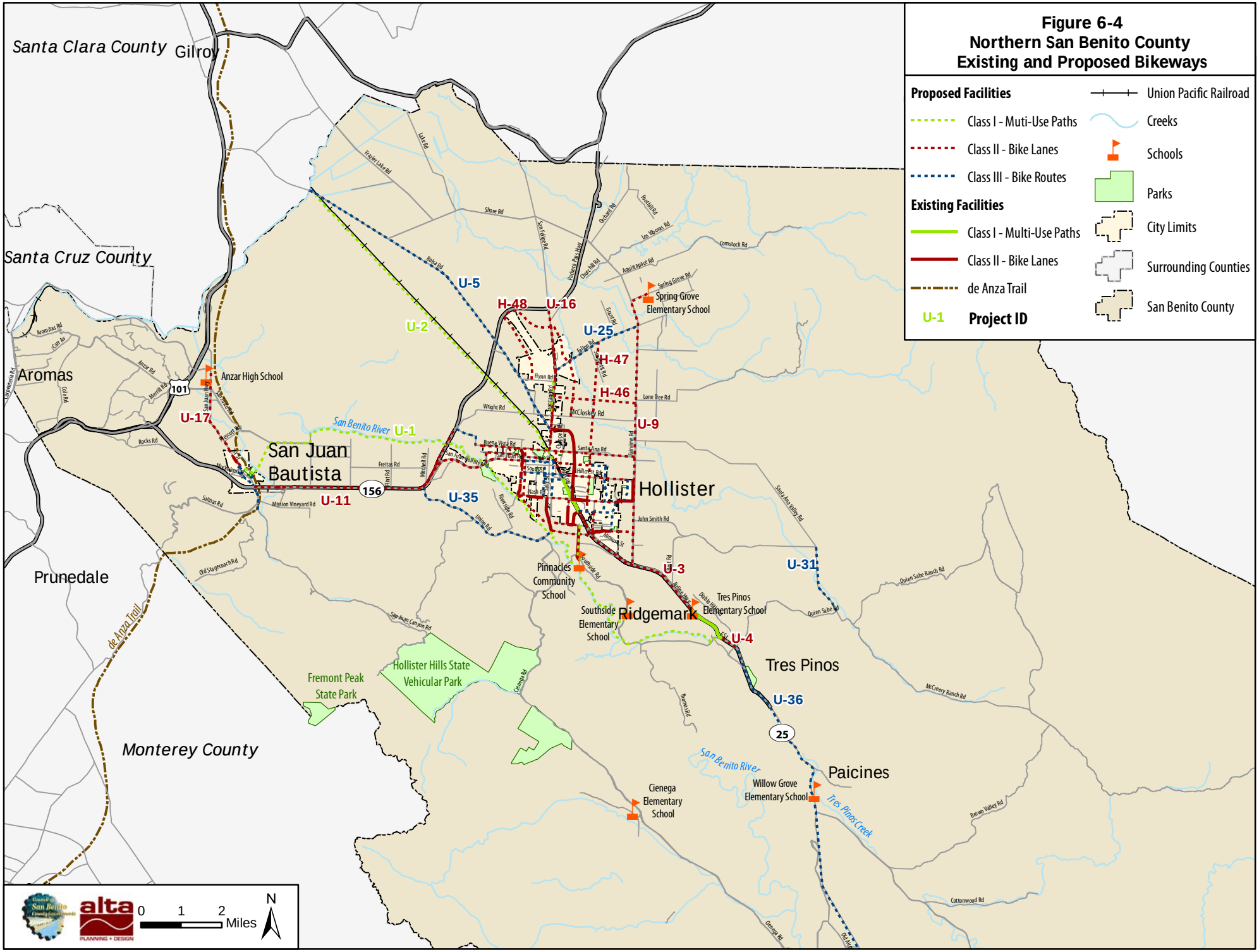
ID	Location	From	To	Length (Miles)
U-3	Airline Hwy	Hollister City Limit	Tres Pinos Elementary School and Existing Class I	3.84
U-4	Airline Hwy	Southside Rd	Quien Sabe Rd	0.39
U-6	Bridgevale Rd	Hollister City Limit South of Central Ave	Hollister City Limit north of San Juan Rd	0.18
U-7	Santa Ana Rd/ Buena Vista Rd	Buena Vista Rd	Falconi Wy	0.73
U-8	Fairview Rd	Airline Hwy	Sunnyslope Rd	1.57
U-9	Fairview Rd	Hillcrest Rd	Spring Grove Rd: Spring Grove Elementary School	4.95
U-10	Hillcrest Rd	El Toro Dr	Hollister City Limit West of Beverly Dr	0.69

ID	Location	From	To	Length (Miles)
U-11	Hwy 156	Breen Rd	Buena Vista Rd	6.33
U-13	Nash Rd	East of San Benito River	Hollister City Limit west of Westside Blvd	0.06
U-14	Nash/Tres Pinos Rd	West St	San Benito St	0.19
U-15	North St	Thompson St	San Benito St	0.03
U-16	San Felipe Rd	Flora Ave	Pacheco Pass	3.22
U-17	San Juan Hwy	Old San Juan Hwy	San Juan Bautista City Limit	2.18
U-18	San Juan Rd	Hwy 156	San Juan Rd Bridge	1.36
U-19	Santa Ana Rd	Fairview Rd	Hollister City Limit	1.29
U-21	Union Rd	Cienega Rd	Airline Hwy	0.99
U-22	Union Rd	Fairview Rd	Calistoga Dr	0.37
U-23	Valley View Dr	Hilltop Rd	Crestview Dr	0.15
			Total	28.52

Table 6-3 includes recommended Class III Bike Routes for the unincorporated areas of the county. Class III facilities are appropriate where there is little available right-of-way for a dedicated lane or shoulder widening but the route is an integral part of the bicycle network. All proposed Class III segments should be signed with Caltrans standard bicycle route signs. Wider shoulders should be prioritized according to a variety of factors with use and safety as key considerations. Long segments of narrow roadway/narrow lanes and uphill segments should be prioritized for installation of periodic shoulder paving, widening, or passing areas.

Table 6-3: Unincorporated Class III Bike Route Projects

ID	Location	From	To	Length (Miles)
U-5	Bolsa Rd	Wright Rd	County Line	8.17
U-24	Clearview Dr	Hillcrest Rd	County Line South of Hillcrest Rd	0.02
U-25	Fallon Rd	Santa Ana Creek	Fairview Rd	1.81
U-27	Meridian St	Hollister City Limit	End of Meridian St	0.03
U-31	Santa Ana Valley Rd	John Smith Rd	Quien Sabe Rd	1.75
U-32	Santa Ana Rd/Buena Vista Rd	Hwy 156	Bend in Buena Vista Rd	0.74
U-34	The Alameda-Salinas Rd	San Juan-Hollister Rd	Old Stagecoach Rd	0.45
U-35	Union Rd	Hwy 156	Cienega Rd	3.83
U-36	Hwy 25	Quien Sabe Rd	Pinnacles Monument	24.50
			Total	41.30



Source: San Benito County and ESRI.

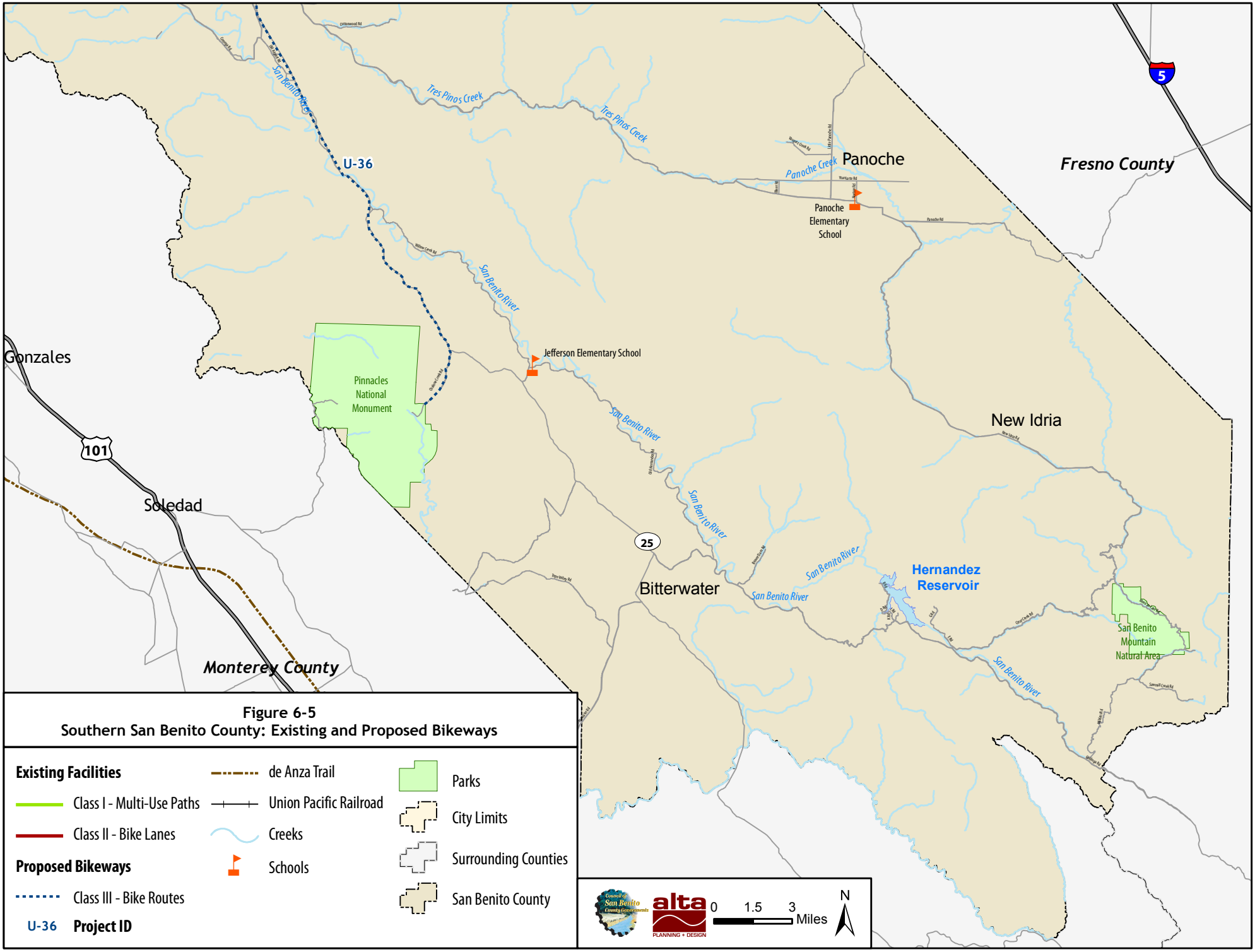
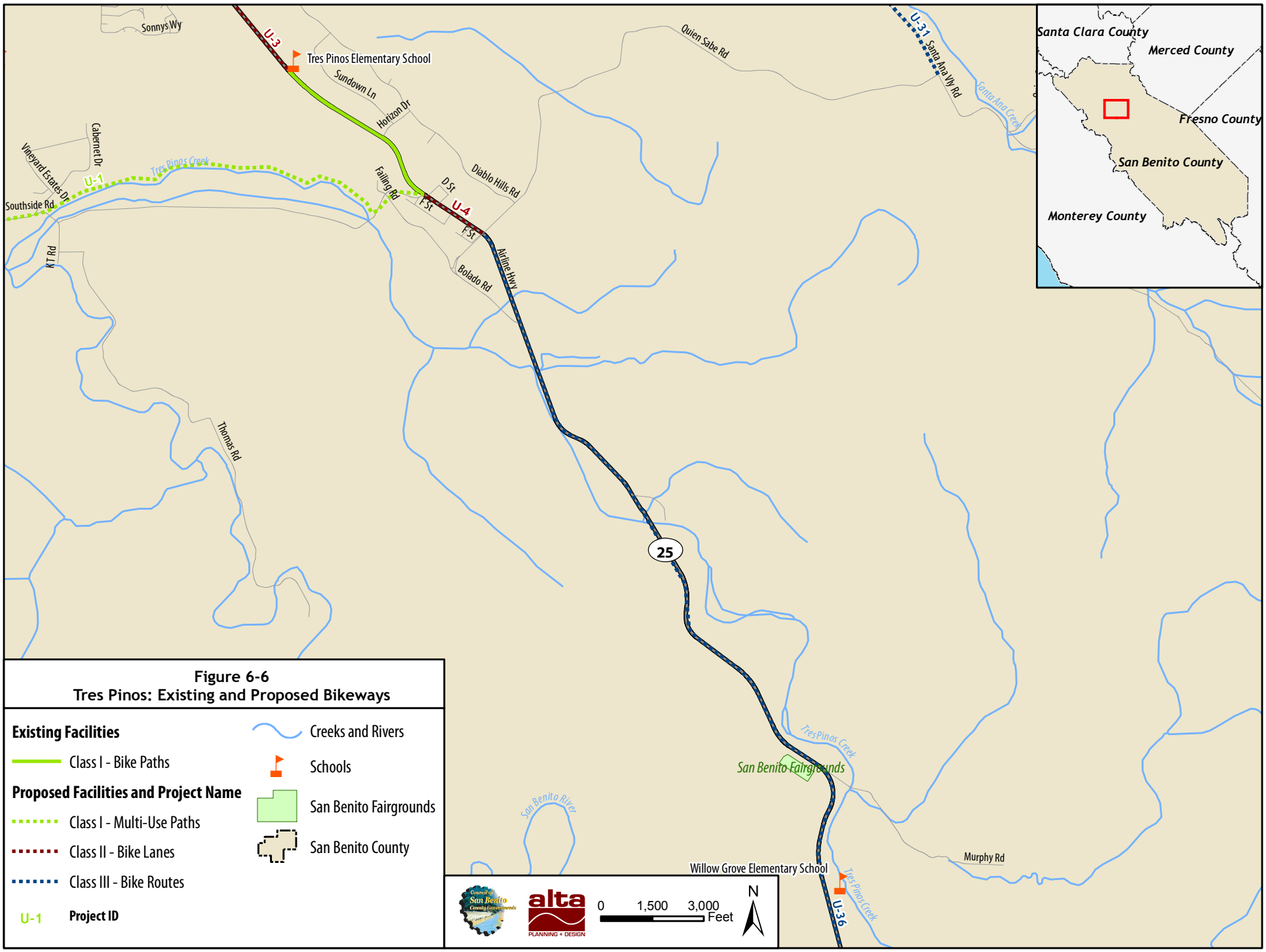


Figure 6-5
Southern San Benito County: Existing and Proposed Bikeways

Source: San Benito County and ESRI.



Source: County of San Benito and ESRI.

6.3. Incorporated Area Bikeway Projects

The following bikeway projects comprise specifically of recommended improvements for the incorporated areas of Hollister and San Juan Bautista. Incorporated area bikeway projects generally differ from the recommended unincorporated bikeways in that they are adjacent to population and activity centers and therefore provide different types of connections. The recommendations were developed focusing on connecting community destinations such as parks, libraries, transit, schools, recreational opportunities, as well as through public input.

The recommendations have been classified into three categories of improvements: Class I Multi-Use Path Projects, Class II Bike Lanes, and Class III Bike Routes.

6.3.1. Hollister

Hollister is the largest incorporated city in San Benito County. In 2008, the California Department of Finance estimated that Hollister's population was 37,051. The 2000 US Census reported a population of 34,614 and the 1990 US Census reported 19,212 residents in Hollister. The city has nearly doubled in population in the last 20 years.

The City of Hollister maintains its heritage of agriculture and cattle ranching while encouraging new businesses. Hollister has a walkable downtown district with community serving businesses. The area is sidewalk lined and has pedestrian amenities including lighting and benches. The main street through town is San Benito Street that has less pass-through traffic since the Highway 25 bypass completion. The major employer downtown is San Benito Foods located on Sally Street. Also in Hollister are the San Benito County offices, the County court, and the City Center.

The transportation network in Hollister consists of Highway 25 that connects to the north with Highway 101 near Gilroy and to the south through central San Benito County. 4th Street/ San Juan Hollister Road also connects west from Hollister to Highway 156 and Highway 101 and east on Highway 156 to the Central Valley. San Benito COG recently completed construction of the Highway 25 bypass through Hollister. The bypass replaced San Benito Street as Highway 25 through downtown. San Benito Street will be transferred to the City in the near future. A Union Pacific Railroad line bisects Hollister, extending from the northwest to the central part of the city.

Hollister Bikeway Network

Tables 6-4, 6-5, and 6-6 and **Figure 6-7** show the recommended Hollister bikeway network. Like the Unincorporated bikeways, the system of bikeways is classified into the standard Caltrans Class I, II, and III bikeway categories discussed in **Appendix B**. The recommendations serve as guidelines to those responsible for implementation. The system and segments may change over time as a result of changing bicycling patterns and implementation constraints and opportunities.

Table 6-4 lists the recommended Class I Multi-Use Path projects for Hollister. These facilities can be popular for recreational bicycling as well as for commuting and shopping. They connect Hollister with recreational opportunities in the unincorporated county. The San Benito River Bike Trail will circle Hollister from San Juan Road to Airline Highway. In total, the UPRR path will provide nearly nine miles of recreation from Hollister north to the county line. The Bicycle Pedestrian Bridge across the San Benito River at San Juan Road will connect the City to the Riverside Park.

Table 6-4: Hollister Class I Multi-Use Path Projects

ID	Location	From	To	Length (Miles)
H-1	San Benito River Trail	Hollister City Limit	County Line	0.75
H-2	Union Pacific RR	3rd St	North St	0.25
H-49	San Felipe Class I	Wright Rd	Flynn Rd	0.84
H-50	Bicycle and Pedestrian Bridge	San Juan Road	San Juan Road	0.06
			Total	1.90

Table 6-5 outlines the recommended Class II Bike Lanes for Hollister. These facilities are recommended where there is available right-of-way and where traffic volumes require channelization of users.

A Class II Bike Lane is recommended for Meridian Street in Hollister

Table 6-5: Hollister Class II Bike Lane Projects

ID	Location	From	To	Length (Miles)
H-3	Airline Hwy	Sunset Dr	Hollister City Limit	0.68
H-4	Bridgevale Rd	San Juan Rd	Central Ave	0.08
H-5	Santa Ana Rd/Buena Vista Rd	Hwy 25 Bypass	Beresini Ln	0.84
H-6	Central Ave-3rd St	Bridgevale Rd	East St	1.66
H-7	Fairview Rd	Sunnyslope Rd	Hillcrest Rd	0.53
H-8	Hillcrest Rd	McCray St	Fairview Rd	1.08
H-9	Ladd Ln	Tres Pinos Rd	Hillock Dr	0.16
H-10	Line St	Nash Rd	Buena Vista Rd	1.16
H-11	McCray St	Hillcrest Rd	Santa Ana Rd	0.61
H-12	Memorial Dr	Sunset Dr	Meridian St	1.15
H-13	Meridian St	Memorial Dr	McCray St	0.85
H-14	Nash Rd	Hollister City Limit	West St	0.57
H-16	North St	End of North St	Thompson St	0.05
H-18	San Felipe Rd	Santa Ana Rd	Fallon Rd	3.39
H-20	San Juan Rd	San Juan Rd Bridge	Westside Blvd	0.92
H-21	Buena Vista Rd	Hollister City Limit west of Westside Blvd	Monterey St	0.81
H-22	Santa Ana Rd	Hollister City Limit	Hwy 25 Bypass	0.21
H-23	Southside Rd	Sunset Dr	Bend in Southside Rd	0.16
H-24	Sunnyslope Rd Bike Lane	Memorial Dr	Cerra Vista Dr	0.70
H-25	Nash Rd/Tres Pinos Rd	San Benito St	Airline Hwy	0.61
H-26	Union Rd	Calistoga Dr	Cerra Vista Dr	0.19
H-27	Valley View Dr	Sunset Dr	Union Rd	0.37
H-28	Westside Blvd	South St	Jan Ave	0.13
H-29	Westside Blvd	Apricot Ln	Steinbeck Dr	0.14
H-43	Westside Blvd Extension	Nash Rd	Ladd Ln	1.49
H-46	Planned Road 1	Fairview Rd	San Felipe Frontage Rd	2.04
H-47	Memorial Dr Extension	Meridian St	Fallon Rd	3.07
H-48	Planned Road 2	McCloskey Rd	Flynn Rd (loops North around airport)	5.61
			Total	29.28

Table 6-6 includes recommended Class III Bike Routes for Hollister. Class III facilities are appropriate where there is little available right-of-way for a dedicated lane or shoulder widening but the route is an integral part of the bicycle network. A bicycle boulevard pilot project is recommended for Monterey Street.

A bicycle boulevard treatment is typically a lower volume street with traffic calming treatments that parallels a higher volume arterial and allows access to key destinations. Traffic calming typically includes a set of improvements to slow traffic and prevent cut-through traffic. Bicycle boulevards may have speed limit reductions from 25 MPH to 20 MPH. In addition, stop signs favor bicyclists and provide safe arterial street crossings by stopping perpendicular traffic. **Appendix B** discusses bicycle boulevards in further detail.

Included in the recommendations is a Class III bike route on Sally Street from 3rd Street to Nash Road. This bicycle facility should be implemented only after the street has been redeveloped and existing industrial uses have relocated. As it exists, there are too many potential conflicts with loading and unloading vehicles.

Table 6-6: Hollister Class III Bike Route Projects

ID	Location	From	To	Length (Miles)
H-17	Sally St	3rd St	Nash Rd	0.96
H-30	4th St	Westside Blvd	McCray St	0.83
H-31	Cerra Vista	Sunnyslope Rd	Union Rd	0.73
H-32	Clearview Dr	Meridian St	Sunset Dr	1.13
H-33	Fallon Rd	Frontage Rd	Santa Ana Creek	0.48
H-34	Hawkins St	Monterey St	Prospect Ave	0.45
H-35	South St/Hillcrest Rd	San Benito St	Hillcrest Rd east of McCray St	0.37
H-37	Meridian St	Memorial Dr	Clearview Dr	0.44
H-38	Monterey St	4th St	Nash Rd	0.88
H-41	South St	Westside Blvd	San Benito St	0.67
H-42	Sunset Dr	Cerra Vista Dr	Airline Hwy	0.84
H-44	Bolsa Rd	San Felipe Rd	Wright Rd	0.45
H-45	Steinbeck Drive	Westside Blvd	Line St	0.10
H-51	Beverly Dr	Hillcrest Rd	Sunny Slope Rd	0.99
			Total	8.87

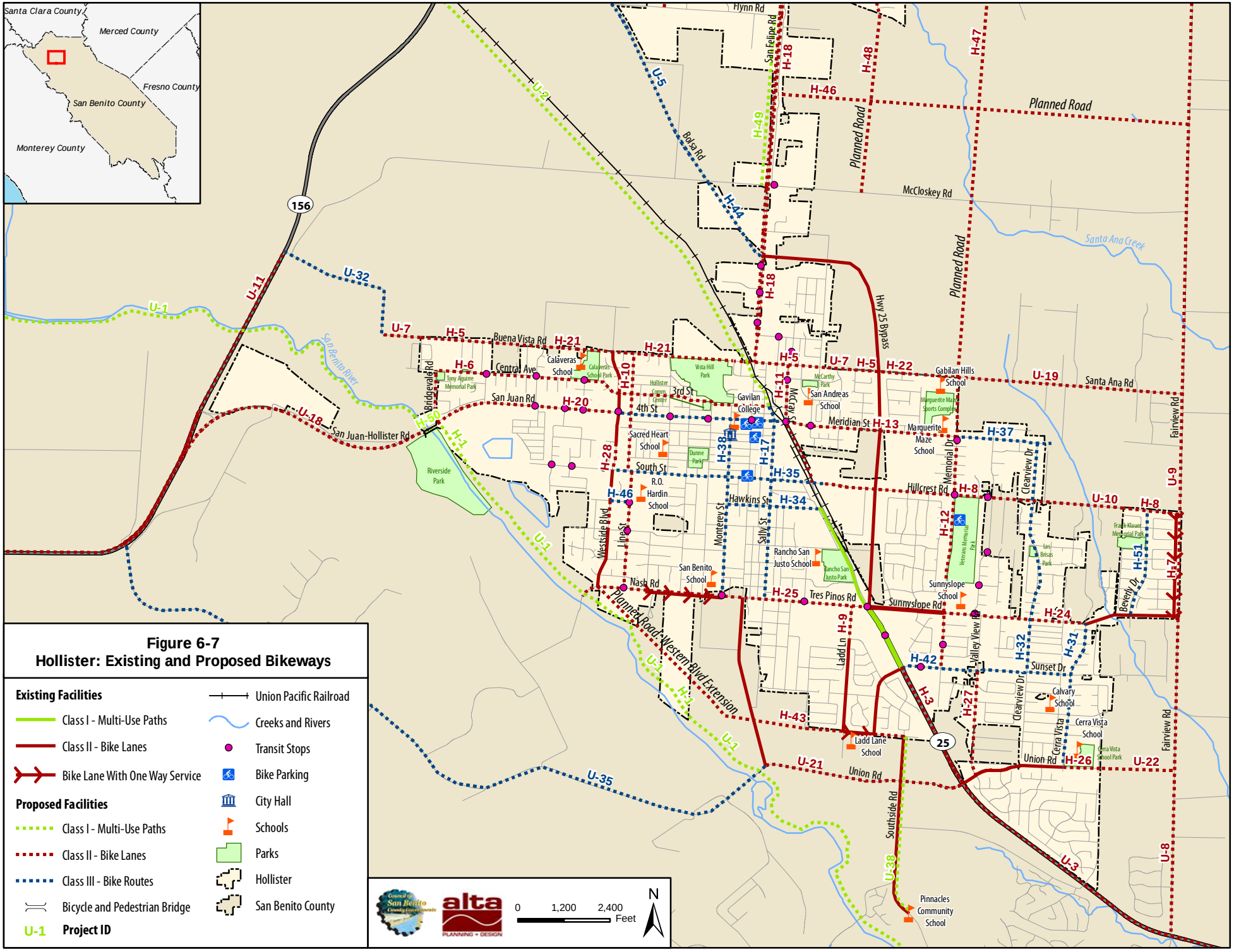


Figure 6-7
Hollister: Existing and Proposed Bikeways

Existing Facilities
- Class I - Multi-Use Paths
- Class II - Bike Lanes
- Bike Lane With One Way Service

Proposed Facilities
- Class I - Multi-Use Paths
- Class II - Bike Lanes
- Class III - Bike Routes
- Bicycle and Pedestrian Bridge
- U-1 Project ID

- Union Pacific Railroad
- Creeks and Rivers
- Transit Stops
- Bike Parking
- City Hall
- Schools
- Parks
- Hollister
- San Benito County

0 1,200 2,400 Feet

N

Source: County of San Benito and ESRI.

6.3.2. San Juan Bautista

San Juan Bautista is west of Hollister, located in the northwest section of San Benito County. It is an incorporated city and according to the 2000 US Census, it has 1,430 residents. The main attraction of the city is the Mission San Juan Bautista and Historic Park located on the original El Camino Real or California Mission Trail.

Mission San Juan Bautista is a major visitor attraction in to San Juan Bautista

In addition to the Mission, there is a small downtown with a grid street pattern. The California de Anza Trail passes east of the city, connecting with San Juan Canyon Road. The de Anza Trail is a 1,210 mile National Historic Trail that connects San Francisco, south to Arizona and the Mexican border. Highway 156 connects with San Juan Bautista. To the west is Highway 101 and to the east is Hollister. Other than the Mission, other destinations include the library at Second Street and Tahualami Street, Third Street shops and restaurants, and San Juan School (at Nyland Drive and The Alameda) located outside of downtown on San Juan Highway.

This bicycle parking art is located in front of the library in San Juan Bautista

San Juan Bautista Bikeway Network

Tables 6-7, 6-8 and 6-9 and **Figure 6-8** show the recommended bikeway for San Juan Bautista. Like the other sections, the projects are also classified by class and improvement type. Multi-Use Path Projects are paved off-street facilities completely separate from streets or highways. Class II Bike Lanes are on-street facilities that provide a signed, striped, and stenciled lane. Class III Bike Routes provides for shared use and is often identified by signing.

The recommended network will connect the city to county bikeways as well as provide connections to the school, library, parks, and the Mission. Additionally, the network will provide for multimodal connections, facilitating bicycle access to the bus stop at Abbe Park. The system and segments may change over time as a result of changing bicycling patterns and implementation constraints and opportunities.

Table 6-7 includes a recommendation for a Class I Multi-Use Path along the perimeter of the San Juan Bautista Historical Park. Currently, there is an existing unpaved path and it is recommended that it be improved to a paved Class I facility.

Table 6-7: San Juan Bautista Class I Multi-Use Path Projects

ID	Location	From	To	Length (Miles)
S-1	San Juan Bautista Historical Park	1st St	Franklin St	0.29
			Total	0.29

Table 6-8 lists recommended Class II bike lanes. The proposed bike lanes on 1st Street and San Juan highway will provide connections to Anzar High School. The recommended bike lane on Highway 156 will connect San Juan Bautista to Hollister.

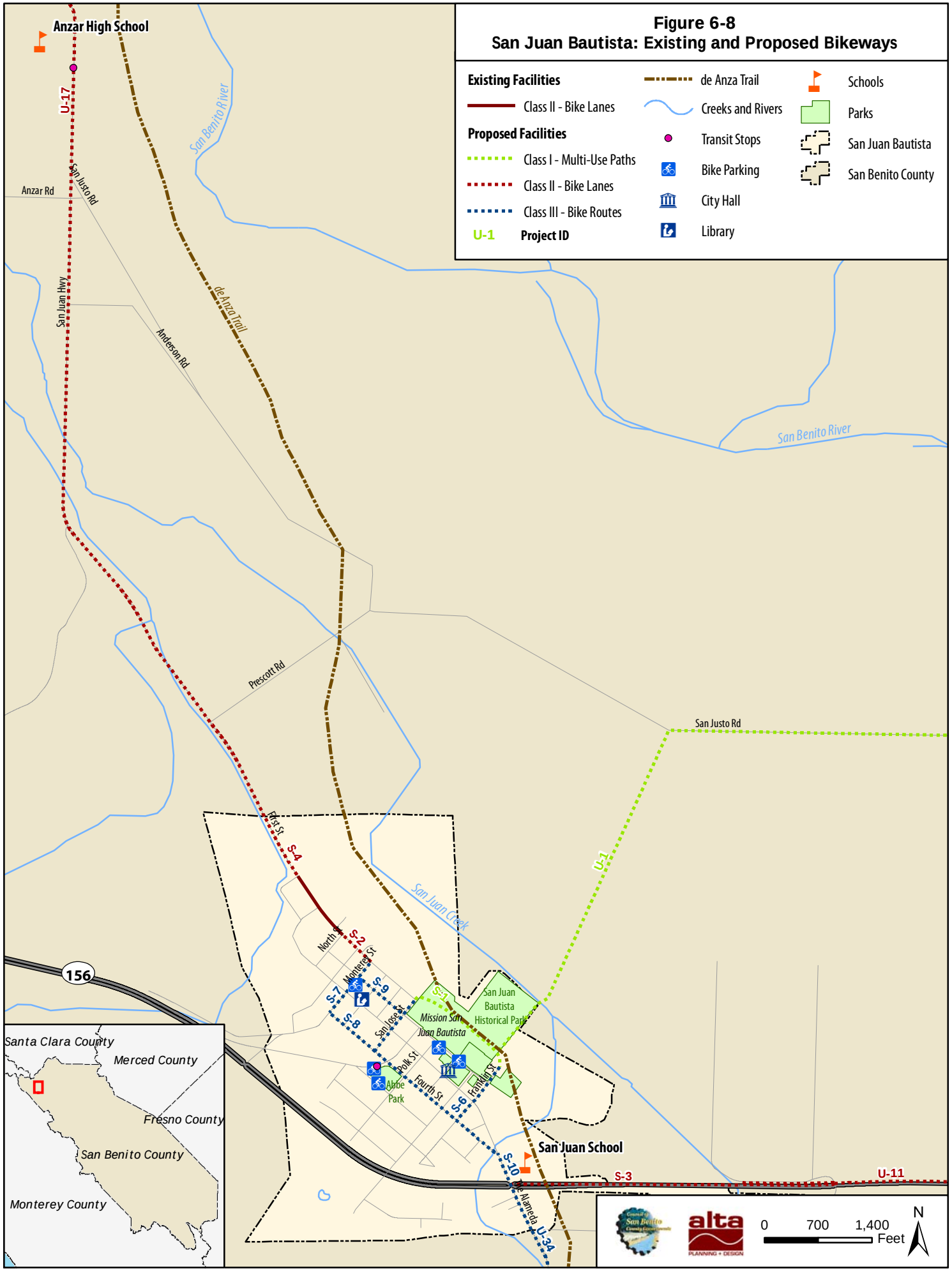
Table 6-8: San Juan Bautista Class II Bike Lane Projects

ID	Location	From	To	Length (Miles)
S-2	1st St	North St	Monterey St	0.10
S-3	Hwy 156	The Alameda	Breen Rd	0.55
S-4	San Juan Hwy	San Juan Bautista City Limit	Ahwahnee St	0.17
			Total	0.82

The proposed Class III facilities for San Juan Bautista are in **Table 6-9**. Because San Juan Bautista's streets are narrow with slow traffic, Class III Bike Routes are appropriate for the city center.

Table 6-9: San Juan Bautista Class III Bike Route Projects

ID	Location	From	To	Length (Miles)
S-5	4th St - San Jose St	4th St	1st St	0.16
S-6	Franklin St	4th St	End of 4th St/SJB Historical Park	0.17
S-7	Monterey St	4th St	1st St	0.16
S-8	4th St - The Alameda	The Alameda	Monterey St	0.54
S-9	Second St	San Jose St	Monterey St	0.14
S-10	The Alameda - Salinas	San Juan School	San Juan-Hollister Rd	0.21
			Total	1.38



Source: County of San Benito and ESRI.

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7. Recommended Pedestrian Improvements

This chapter details projects that provide increased opportunities for residents in the San Benito County region to walk for transportation or recreation.

Improvement recommendations are based on pedestrian facility design best practices and input from:

- Council of Governments (COG) Board of Directors input
- COG staff input
- Bicycle and Pedestrian Advisory Committee (BPAC) input
- Technical Advisory Committee (TAC) input
- Public input
- Review of existing planning efforts
- Local knowledge and experience of the consultant team

Most pedestrian activity in the County occurs in the developed areas and as a result most of the existing sidewalks are located in these locations. Primarily, recommendations in this Chapter relate to Hollister and San Juan Bautista. Recommendations for rural roads should also be considered where appropriate.

The term pedestrian refers to a person moving from place to place, on foot and/or with use of an assistive mobility device such as a wheelchair. Generally, there are two types of pedestrian facilities, those intended for exclusive use by pedestrians, such as sidewalks, and those shared with other users (Class I Multi-Use Paths). Pedestrian facilities at intersections can include crosswalks, pedestrian crosswalk signals, warning signage, curb ramps and other treatments to promote safety and accessibility for disabled users.

The California Vehicle Code Section 275 defines a crosswalk as either:

That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street.

Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.

At intersections, a crosswalk is effectively a legal extension of the sidewalk across the roadway. Crosswalks are present at all intersections, whether marked or unmarked, unless the pedestrian crossing is specifically prohibited by the local jurisdiction. At mid-block locations, crosswalks only exist if they are marked.

Traffic control devices must follow the procedures set forth in the CA MUTCD, while elements such as sidewalks and curb cuts must comply with guidelines for implementing the federal Americans with Disabilities Act (ADA).

7.1. Recommended Pedestrian Improvements

This chapter has a number of recommendations for pedestrian infrastructure projects. Some of these improvements should be implemented countywide and others are for specific locations. For improvements with specific locations, they are identified in the appropriate sections of this chapter. Projects are divided into several categories of improvements: infill of sidewalk gaps, signalized intersection improvements, unsignalized crosswalk improvements, curb ramp improvements, safe routes to school projects, multi-use path projects, and maintenance of pedestrian facilities. **Figure 7-1** and **Figure 7-2** show an overview of the pedestrian facility improvements at specific locations in Hollister and San Juan Bautista, including proposed paths and improvement projects.

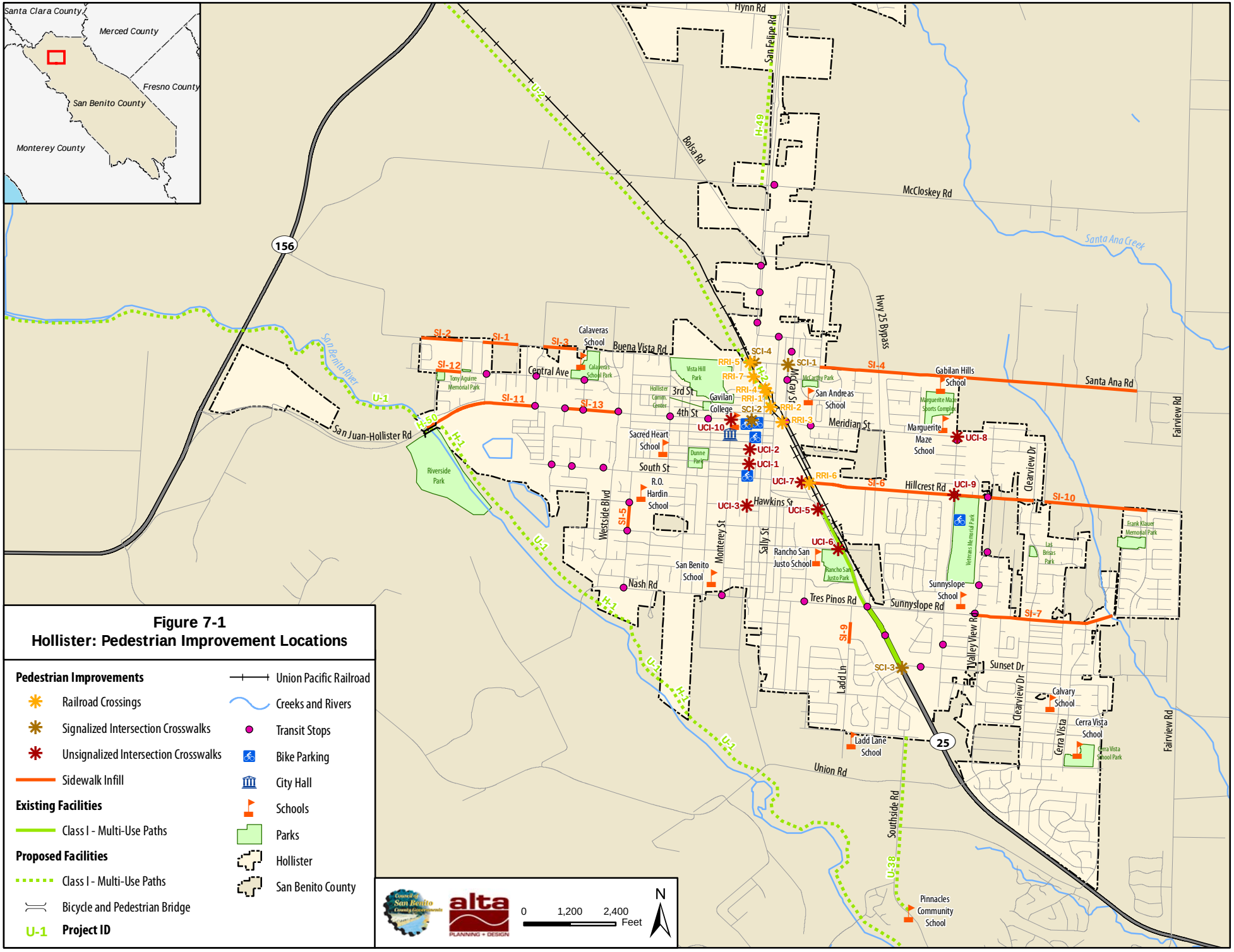
The Hollister Downtown Plan includes many pedestrian improvements for San Benito Street in Hollister. This chapter includes these same recommendations. The Downtown Plan has more details relating to pedestrian amenity recommendations, such as the type of sidewalk lighting, street trees, and newspaper racks. These same themes should be applied throughout Hollister, San Juan Bautista, and San Benito County where appropriate.

7.1.1. Infill of Sidewalk Gaps

Sidewalk gaps are areas in San Benito County and cities where there is pedestrian demand but no walkway, or the walkway ends abruptly, resulting in a discontinuous network. Areas without walkways may force pedestrians to walk along the edge of the roadway or may cause pedestrians to cross at undesignated crossing locations. The COG should work with San Benito's jurisdictions to fill sidewalk gaps located in the urban areas and near schools and transit stops. Where feasible, providing a continuous pedestrian sidewalk along roadways on both sides of the street is recommended. It is also recommended that sidewalks be required for commercial, business, and industrial parks where there is new development. New sidewalks can be capital projects or installed with roadway improvement projects, development, or redevelopment. Priority locations for sidewalks are in **Table 7-1.**

Table 7-1: Priority Sidewalk Gap Improvements

ID	Location	City/County	Miles
SI-1	South side of Buena Vista Rd – Carnoble Drive to Brandy Ct	Hollister	0.17
SI-2	South side of Buena Vista Rd – Beresini Lane to Ranchito Dr	Hollister	0.20
SI-3	South side of Buena Vista Rd – east of Miller Road to west of Calaveras School	Hollister	0.16
SI-4	North side of Santa Ana Rd – Chappell Road to Carey Wy	Hollister	1.57
SI-5	West side of Line St – Steinbeck Dr to Apricot Ln	Hollister	0.14
SI-6	North side of Hillcrest Rd – McCray Street to Memorial Dr	Hollister	0.71
SI-7	North side of Sunnyslope Rd – El Toro Drive to Mulberry St	Hollister	0.66
SI-8	South side 2nd Strt – Franklin St to Polk St	San Juan Bautista	0.17
SI-9	West side of Ladd St – North of Morning Glory Dr to Shopping Center	Hollister	0.11
SI-10	North and south side of Hillcrest Rd – Memorial Dr to Clearview Dr	Hollister	0.41
SI-11	North and south side of San Juan Rd – San Benito Bridge to Miller Rd	Hollister	0.57
SI-12	North side of Graf Rd – Bridgevale Road to Ranchito Dr	Hollister	0.12
SI-13	North side of San Juan Rd – Rajkovich Wy to Westside Blvd	Hollister	0.27
		Total	5.26



Source: County of San Benito and ESRI.

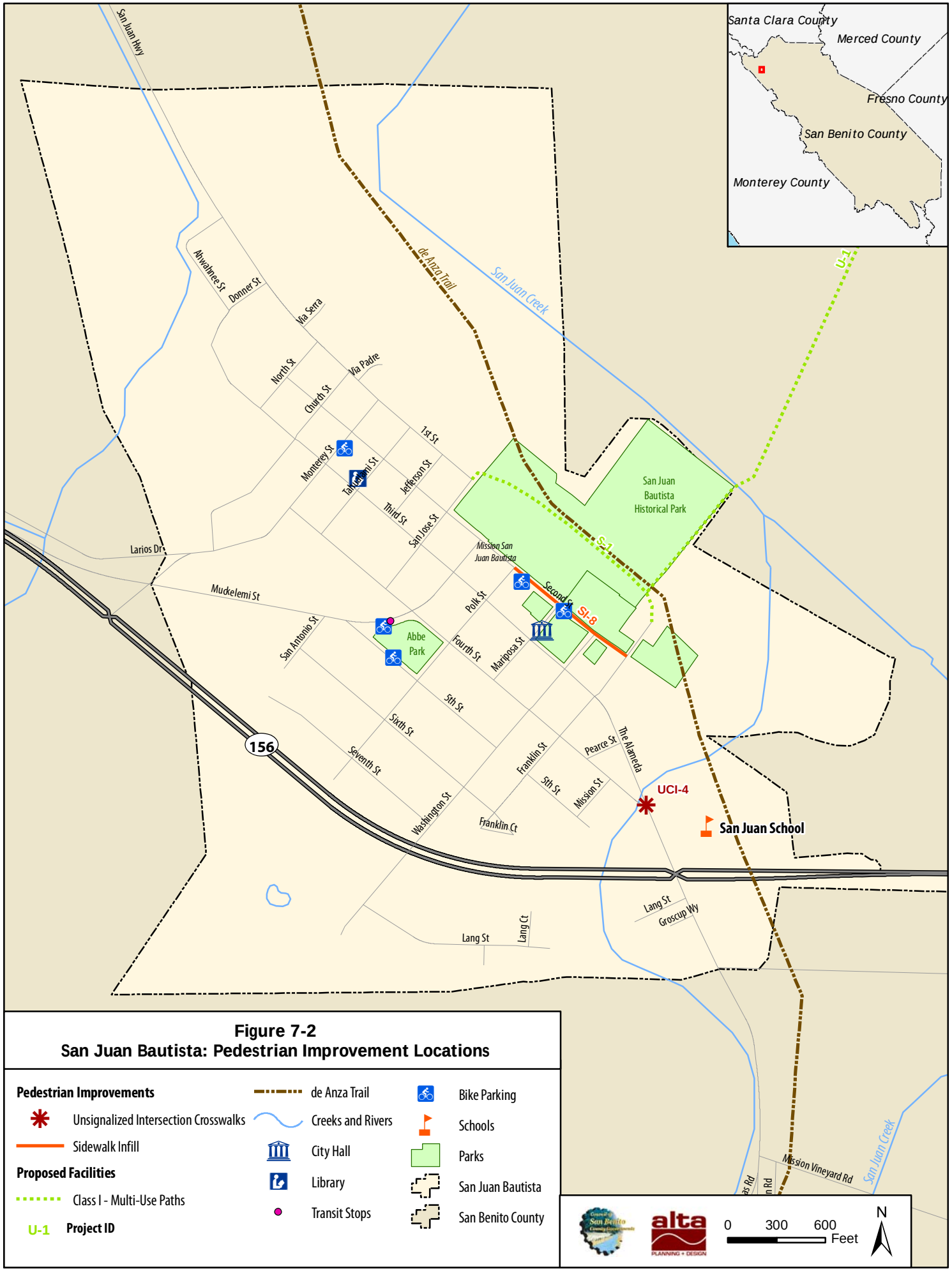


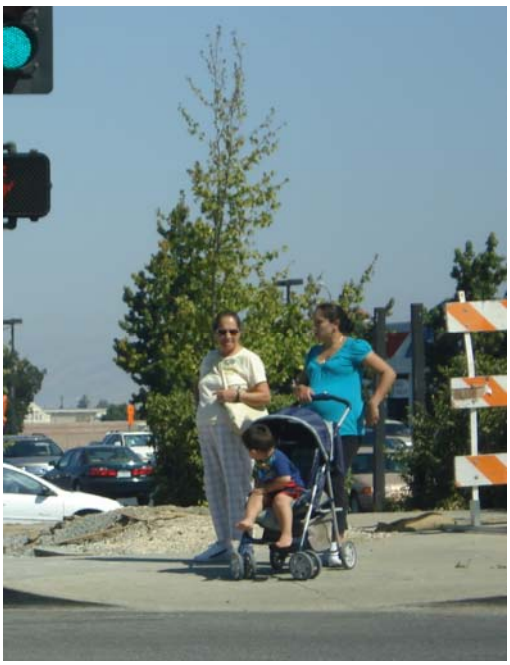
Figure 7-2
San Juan Bautista: Pedestrian Improvement Locations

Pedestrian Improvements
- Unsignalized Intersection Crosswalks
- Sidewalk Infill

Proposed Facilities
- Class I - Multi-Use Paths
- U-1 **Project ID**

- de Anza Trail
- Creeks and Rivers
- City Hall
- Library
- Transit Stops
- Bike Parking
- Schools
- Parks
- San Juan Bautista
- San Benito County

Source: County of San Benito and ESRI.



Pedestrians wait at a signalized intersection on Airline Highway in Hollister where there is a pedestrian signal but not a crosswalk

7.1.2. Signalized Intersection Improvements

There are a variety of engineering improvements that can improve pedestrian walking experience and safety when crossing signalized intersections. These improvements help alert motorists of the presence of pedestrians. They also help pedestrians know where they should cross streets at intersections.

Transverse Crosswalks

Crosswalks at signalized intersections help alert motorists of the presence of pedestrians. Most common crosswalk treatments at signalized intersections in the region are transverse crosswalks, or two parallel lines that extend from one curb face to the other. Where pedestrian crossing is permitted at signalized intersections, at a minimum, transverse crosswalks should be striped. At major intersections, where pedestrian activity is high and where significant pedestrian-vehicle conflicts may occur, or visibility of the crosswalk is a concern, ladder or zebra style crosswalks should be considered. **Table 7-2** is a priority list of recommended arterial/arterial or arterial/collector intersection locations that should have striped crosswalks on all or some of the intersection legs where they do not exist. The table includes the intersection and the number of crosswalks recommended.

Table 7-2: Recommended Crosswalk Improvements at Signalized Intersections

ID	Location	City	Number	Crosswalk Type
SCI-1	Santa Ana Road and McCray Street	Hollister	1	Ladder
SCI-2	San Benito Street and 4th Street	Hollister	4	Transverse (2) Ladder (2)*
SCI-3	Sunset Drive and Airline Highway	Hollister	4	Ladder
SCI-4	San Benito Street and Santa Ana Road	Hollister	2	Ladder (2)*

*Crosswalks with pavers

Countdown Signals

Countdown Signal

Countdown signals are similar to standard pedestrian crossing signals but they display the amount of time remaining for pedestrians to cross a street. Benefits of countdown signals include offering the most information possible to pedestrians, decreasing the number of pedestrians stranded in crosswalks, and increasing pedestrians feeling of safety.

As a first priority, the COG should work with the County and cities to install countdown signals at signalized intersections within 0.25 miles of

government buildings, hospitals, as well as in the central business districts of Hollister and San Juan Bautista.

Signal Timing

Signal timing is the amount of time each phase of a signal is allotted for vehicles to pass through or pedestrians to cross the street. Per the CA MUTCD, standard traffic engineering design assumes that pedestrians travel at 4.0-feet per second. This calculation is used to determine the amount of time for the pedestrian clearance interval. For slower pedestrians, such as the elderly and children, this assumed walking speed may result in them not being able to fully cross the street before the light changes. By adjusting signal timing to a slower walking rate, slower pedestrians have more time to cross the street.

With the COG's assistance, jurisdictions in the San Benito region should consider adjusting signal timing at arterial/arterial and arterial/collector signalized intersections within 0.25 miles of elementary schools to allow for a pedestrian pace of 3.0-feet per second. This slower walking speed is consistent with CA MUTCD recommendations for walking rates for slower pedestrians.

Audible Signals

Audible signals provide a cue to visually-impaired pedestrians that there is a 'Walk' signal. Audible signals are usually chirping sounds or the name of the street to cross. The pedestrian push-button activates these sounds. The CA MUTCD states that installation of audible signals should be based on an engineering study that considers:

- Potential demand for accessible pedestrian signals
- A request for accessible pedestrian signals
- Traffic volumes during times when pedestrians might be present; including periods of low traffic volumes or high turn-on-red volumes
- The complexity of traffic signal phasing
- The complexity of intersection geometry

The COG should work with Hollister, San Juan Bautista, and San Benito County to continue installing audible signals at signalized intersections. Priority locations are intersections within 0.25 miles of medical facilities, government buildings, and the central business districts.

7.1.3. Unsignalized Crosswalk Improvements

Infrastructure improvements at unsignalized crosswalk locations can help increase the visibility of pedestrians to motorists and improve pedestrian walking experiences. These improvements are for locations with unmarked crosswalks and existing marked crosswalks at unsignalized intersections.

Pedestrians cross San Benito Street in Hollister

Pedestrians cross Prospect Avenue at the end of the Class I path adjacent to the railroad tracks in Hollister

High-Visibility Crosswalk Markings

There are a variety of different striping styles for crosswalks but generally, in the San Benito region there are two different marking styles for pedestrian crosswalks: the standard transverse style, consisting of two parallel lines; and the ladder style consisting of two parallel lines with perpendicular ladder bars striped across the width of the crosswalk. Ladder style crosswalks are used in locations where heightened pedestrian visibility is important, such as around school areas.

As a countywide policy, the COG should encourage the installation of ladder crosswalk markings at all uncontrolled crosswalk locations where there are existing tranverse style markings. The COG should also encourage the installation of high-visibility ladder crosswalk markings at uncontrolled crosswalks on local streets adjacent to schools.

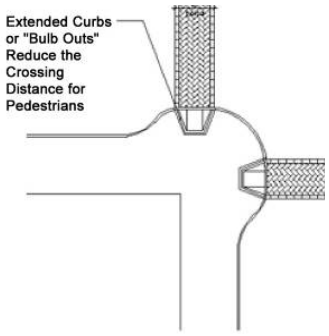
This Plan recommends, as listed in **Table 7-3**, high-visibility crosswalk markings on San Benito Street in Hollister's commercial district where there are not existing signals. As the Hollister Downtown Plan recommends, these should be enhanced with pavers. High visibility crosswalks are also recommended at other unsignalized locations on arterial streets near schools and connecting the existing Class I path along the railroad tracks to the street network in central Hollister.

Table 7-3: Recommended High Visibility Crosswalk Improvements at Unsignalized Intersections

ID	Location	City/County	Number
UCI-1	San Benito Street and 7th Street*	Hollister	2
UCI-2	San Benito Street and 6th Street*	Hollister	2
UCI-3	San Benito Street and Hawkins Street*	Hollister	2
UCI-4	The Alameda adjacent to San Juan School	San Juan Bautista	1
UCI-5	End of Class I path on Prospect Avenue to Hawkins Street	Hollister	1
UCI-6	E Park Avenue and Prospect Avenue	Hollister	4
UCI-7	Hillcrest Road and Prospect Avenue and South Street	Hollister	1
UCI-8	Meridian Street and Memorial Drive	Hollister	3
UCI-9	Hillcrest Road and Memorial Drive	Hollister	3
UCI-10	4th Street and Monterey Street	Hollister	2

*Crosswalks with pavers

Curb Extensions



Curb extensions reduce pedestrian crossing distance and increase visibility

Curb extensions, also known as "bulbouts" to describe their shape, are engineering improvements intended to reduce pedestrian crossing distance and increase visibility at intersections. In addition to shortening the crossing distance, curb extensions increase pedestrian visibility by allowing pedestrians to safely step out to the edge of the parking lane where they can see into the street, also making pedestrians more visible to oncoming motorists. Curb extensions can help improve safety by visually narrowing the roadway, cueing drivers to reduce speeds.

Despite their advantages, curb extensions can require major re-engineering of streets, can be extremely costly, and are not appropriate for all situations. As the Downtown Hollister Plan recommends, curb extensions should be installed between all intersections and mid-block crossings along San Benito Street, generally between Third Street and South Street. In other areas of the County, the COG should encourage the installation of curb extensions at crosswalk locations where appropriate.

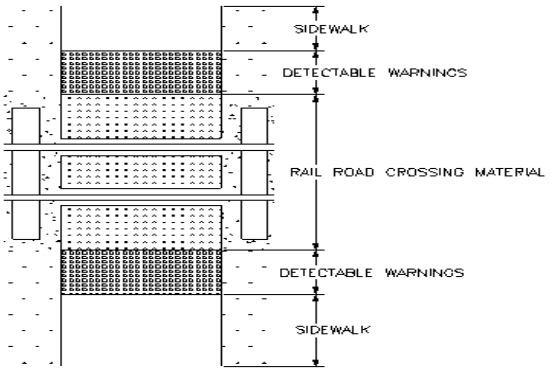
Railroad Crossings

There are several railroad lines with at-grade crossings in Hollister. At-grade crossings are where trains cross streets at the same level as vehicles and pedestrians. Improvements such as sidewalks, signals, and truncated domes placed at the crossing can help alert pedestrians of possible train traffic and meet current ADA requirements. **Table 7-4** has locations where these improvements should occur in Hollister. It is recommended that the City of Hollister work with the California Public Utilities Commission and the UPRR in determining the best design treatments for these crossings with further engineering study.

There are no pedestrian facilities at 4th Street and the railroad tracks in Hollister

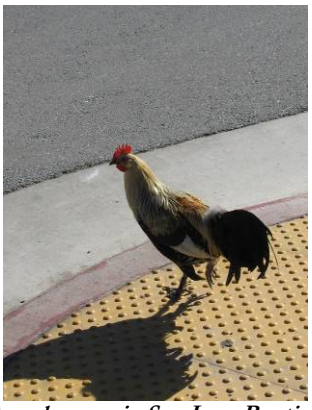
Table 7-4: Pedestrian Railroad Improvement Locations

ID	Location	City/County
RRI-1	2nd Street	Hollister
RRI-2	3rd Street	Hollister
RRI-3	4th Street	Hollister
RRI-4	East Street	Hollister
RRI-5	North Street	Hollister
RRI-6	Hillcrest Road	Hollister
RRI-7	San Benito Street	Hollister



Pedestrian railroad crossing that meets ADA Guidelines

7.1.4. Curb Ramp Improvements



A curb ramp in San Juan Bautista with truncated domes

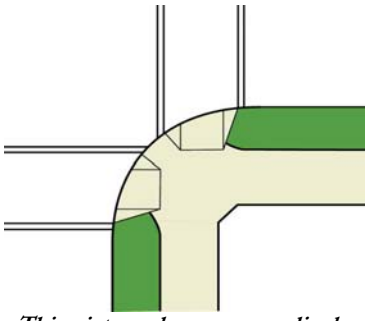
As part of a curb ramp inventory, locations for missing curb ramps should be inventoried, as well as existing ramp information including slope, side slope, landing dimensions, and other attributes measured in the field. An analysis of this data considers compliance with current ADA regulations for slope, lip height and presence of tactile warnings. Retrofitting non-compliant curb ramps is generally something the COG, County, or cities accomplish with roadway re-paving projects.

Truncated Domes

Truncated domes provide a cue to visually-impaired pedestrians that they are entering a street or intersection. Since 2002, ADA Guidelines have called for truncated domes on curb ramps.

Although it is not required to install truncated domes at existing curb ramps that were built prior to 2002, it is recommended that the jurisdictions continue installing these devices at locations with high pedestrian demand and when re-paving and upgrading existing curb ramps to meet ADA guidelines. In addition, as previously recommended, they should be installed where there are at-grade railroad crossings. Truncated domes are a visible improvement, and they are relatively inexpensive to install.

Perpendicular Curb Ramps



This picture shows perpendicular curb ramps

Perpendicular curb ramps are designed so there are two ramps at intersection corners. Perpendicular ramps allow pedestrians and people in wheelchairs to access the sidewalk perpendicular to stopped traffic and to enter into the crosswalk directly in their line of travel. Perpendicular ramps are not required by ADA or any other standard. However, perpendicular ramps are the preferred curb ramp style from a pedestrian standpoint since they provide the most direct access into the crosswalk. Perpendicular ramps do require more space to install than a single diagonal ramp, are more costly, and sometimes cannot be accommodated due to utilities or other obstructions at corners. Corners at major intersections in high pedestrian zones like in downtown Hollister should have perpendicular ramps where there is adequate right-of-way. San Juan Bautista has some perpendicular ramps that could be improved with resurfacing street overlay projects.

7.1.5. Safe Routes to School

San Benito County has 22 schools located throughout the County and cities. Improvements at these locations could benefit school-aged children walking to and from school, in addition to improving conditions for all pedestrians in the neighborhood. The COG conducted walking audits and has developed recommendations for infrastructure improvements at and around schools in the region.

San Benito jurisdictions should work with the COG on implementing the school area pedestrian improvements from the COG's school walking audits. The COG should also work with the County and cities to conduct a systematic evaluation of roadway networks around high schools and junior high schools and develop a capital improvement project list from these findings.

7.1.6. Multi-Use Path Projects

There are several potential Multi-Use Path projects that could increase pedestrian activity in Hollister, San Juan Bautista, and San Benito County. Descriptions of these projects are included in Chapter 6. These multi-use paths, outlined in **Table 7-5**, help connect pedestrians with various land uses and serve recreational activity. The COG should support pathway connector projects because they provide walking corridors for all types of users and for recreational and utilitarian purposes.

Table 7-5: Multi-Use Path Projects

Name	From	To	City/ County	Segment	Miles
San Benito River Trail	San Juan Bautista Park	Airline Highway	Hollister County	H-1, U-1	16.01
San Benito River Bicycle Pedestrian Bridge	San Juan Road over San Benito River		Hollister	H-50	0.05
San Felipe Class I	Wright Rd	Flynn Rd	Hollister	H-49	0.84
San Juan Bautista Historical Park	1 St	Franklin St	San Juan Bautista	S-1	0.29
Southside Rd	Bend in Southside Rd	Pinnacles Community School	County	U-38	.90
Southside School Connection	San Benito River Trail	Southside School	County	U-37	0.68
UPRR	3rd St	County Line	Hollister, County	H-2, U-2	8.81
				Total	27.67

Some of the existing crosswalks in San Juan Bautista need restriping

7.2. Pedestrian Facility Maintenance

Other than local funds, there are few sources of money for pedestrian maintenance projects. Given this, the COG should encourage the County and cities to work with private property owners to help maintain pedestrian facilities to a consistent standard, and allocates resources to address problems in its own right-of-way. Common pedestrian maintenance items are crosswalk re-striping, repairing special pavement treatments, and repairing sidewalks uprooted by trees. The COG should continue providing or improving pedestrian facilities whenever there are road resurfacing projects, major road repairs, utility installations, or new construction. The COG should work with local jurisdictions in responding to public complaints about specific problem locations. COG should also set up a website where residents report identified maintenance issue locations.

8. Education, Encouragement, Enforcement, and Evaluation Programs

Bicycle and walking programs can enhance the bicycling and walking experiences in the San Benito County region by supporting physical facilities. Programs are organized into four categories: education, encouragement, enforcement, and evaluation. This section describes programs best suited for the San Benito jurisdictions and its bicycle and pedestrian system.

8.1. Education Programs

8.1.1. Safe Routes to School

Older students escorting their peers across the roadway.

Safe Routes to School (SR2S) refers to a variety of multi-disciplinary programs aimed at promoting walking and bicycling to school and improving traffic safety around school areas through education, incentives, increased law enforcement, and engineering measures. Safe Routes to School programs typically involve partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies. San Benito's SR2S efforts are a vital component of the Bikeway and Pedestrian Master Plan, as they will facilitate the implementation and funding for specific improvements and help increase bicyclist and pedestrian safety and encourage fewer auto trips. Included in this Plan are a Safe Routes to School Tool Kit (**Appendix D**) and Suggested Routes to Schools Maps (**Appendix E**). The Safe Routes to School Toolkit provides an overview of tools and strategies to improve safety and accessibility. Building upon this effort will increase the number of students walking and bicycling to school. The Suggested Routes to Schools Maps can be used as part of the Safe Routes Program. They help direct students by showing suitable walking routes to schools.

Students receiving in-class training

A successful SR2S program in the San Benito area will need buy-in from individuals and organizations throughout the community. While each individual school will have unique concerns and goals for developing a SR2S program, an organizational strategy that promotes the sharing of ideas between schools can be more effective than several isolated school groups. The key components of an effective SR2S program include champions (individuals at each school who spearhead their school's organizing effort), stakeholders (a team of people from an individual school), and a task

force made up of all the stakeholder teams in the community. The basic components of the proposed SR2S program include: bicycle/pedestrian safety education, encouragement, engineering improvements, and enforcement of traffic laws.

Education

Students receiving on-street bicycle training.

Curriculum programs implemented in schools can teach children the basics of pedestrian and bicycle safety. Classroom educational materials should be presented in a variety of formats (safety videos, printed materials, and classroom activities), and should continually be updated to make use of the most recent educational tools available. Classroom education programs should also be expanded to promote the health and environmental benefits of bicycling and walking. Outside schools, educational materials should be developed for different audiences, including elected officials (describing the benefits of and need for a SR2S program), and parents (proper school drop-off procedures and safety for their children).

Educational programs should be linked with public events and incentive programs when appropriate, and students should be included in task force activities, such as mapping locations for improvements. Involving students can serve as an educational tool and can also provide the task force with meaningful data that is useful for prioritizing improvement locations. With the Council of Government's (COG) assistance, educational programs, and especially on-bike training, should be expanded to more schools and for more hours per year.

Encouragement

May is Bike to Work Month. The COG promotes Bike Week. The COG should promote Walk to School Day in October.

Over 500 students in the San Benito region participate in Bike to School Day. School commute events and frequent commuter contests are used to encourage participation. Programs that may be implemented include a "Walking School Bus Program," which involves parents taking turns walking (or bicycling) with groups of children to school. A good opportunity to kick-off a SR2S program is during International Walk to School Day, held annually in early October. Organized Bike and Walk to School Days should be held monthly or weekly to keep the momentum going and encourage more children and their parents to walk or bike to school. Prizes or drawings for prizes offered to participants can be used in schools as an incentive. Events related to bicycling and walking should be incorporated into existing curricula when practical. Publishing the names of student participants in events can be effective means of encouraging student involvement. Another key to successful events is promotion. Ensuring that parents are aware of events (whether classroom-specific or district-wide) is crucial to gaining maximum student participation.

Other contests and event ideas to encourage bicycling and walking to school include: competitions in which classrooms compete for the highest proportion of students walking or biking to school, themed or seasonal events, and keeping classroom logs of the number of miles biked and walked by children and plotting these distances on a map of California or the U.S. The COG should sponsor these types of events throughout the school year.

Enforcement

Various techniques are employed to ensure traffic laws are obeyed. The SR2S task force and stakeholder teams should develop priority areas in need of enforcement by the local police departments. One alternative to paying for physical police presence is to use innovative signage, such as in-roadway crosswalk signs to alert motorists that children may be crossing, or speed feedback signs that indicate to motorists their current speed. These measures could be especially effective for schools near higher-volume roadways.

The COG should work with the jurisdictions' police departments in expanding enforcement around schools in the region.

Engineering

Engineering measures for Safe Routes to Schools include the design, construction and maintenance of physical infrastructure that can improve the safety and comfort of students that are biking and walking to school. This infrastructure includes signage, stenciling, traffic control devices such as stop signs, bulb-outs, sidewalks, paths, bike lanes, and trails.

Crosswalk at San Benito High School

To provide safe access for children, school sites should have designated non-motorized transportation access points that do not require students to cross in front of drop-off and pickup traffic. Task Force members can work with the COG to develop their priorities for funding and implementation. Chapter 9 also calls out bicycle and pedestrian projects that are within close proximity to schools.

8.1.2. Bicyclist and Motorist Education

It is important to complement bikeway and pedestrian facilities with effective education programs. Education programs ensure bicyclists, pedestrians, and motorists know how to travel safely and understand the regulations that governs each mode of transportation. These programs can increase public awareness of the legal rights and responsibilities of bicyclists, pedestrians and motorists about topics such as passing distances, sidewalk bicycling, and non-motorized use of travel lanes.

The COG should work with local jurisdictions to develop education through a variety of means including:

- Public service announcements on radio and TV to promote the health and livability benefits of bicycling, and provide accurate information about motorist and bicyclists rights and responsibilities on the road.

- Bicycle safety a part of traffic school curriculum (California Department of Motor Vehicles' responsibility).
- Brochures on bicycle safety and laws to the public (such brochures are available from organizations such as AAA and the California Highway Patrol). An excellent bicycle safety handbook is the "From A to Z By Bike" handbook and should be made available to each school.
- Bicycle helmet subsidy program to provide low-cost approved helmets for all school-aged bicyclists.

All bicycle and motorist educational program materials should be developed in both English and Spanish at a minimum, and other languages as appropriate.

8.1.3. One-Stop Bicycle Website

The COG has a website dedicated to Bike Week that includes bicycling and walking information. This website could be updated to include information for all year around. It could provide information about laws, events, maps, tips, bicycling groups, and other information including.

- A list of all bicycling groups, including clubs, racing teams, and advocacy groups.
- Information about current projects and how to get involved (e.g., public meetings, comment periods).
- Maps and brochures (links to on-line maps and brochures, where to find in person, and how to request mailed materials).
- Links to laws and statutes relating to bicycling.
- Links to all relevant local jurisdictions and their bicycling information.
- Information about bicycling events (rides, classes, volunteer opportunities).
- A list of local bike shops, including phone numbers and addresses.
- Relevant phone numbers (hotlines for pothole repair, parking enforcement, bike rack installation request, etc.).
- Service Request forms to report roadway conditions affecting bicyclists.

A one-stop bicycling website is a relatively easy and inexpensive education program.

8.1.4. Share the Road Outreach Program

A Share the Road Outreach Program is intended to educate motorists, bicyclists and pedestrians about their legal rights and responsibilities on the road, and the need to increase courtesy and cooperation to improve safety. The program targets not just youth but all residents and visitors to a community.

It is recommended that the COG develop a Share the Road outreach program to benefit both motorists and cyclists. The Share the Road program could be a partnership between local cycling groups and the San Benito Sherriff's Department. San Benito County or the COG could seek annual funding to develop the following elements of the Share the Road Program, implemented in a phased approach. All bicycle and motorist educational program materials should be developed in both English and Spanish at a minimum, and other languages as appropriate.

8.2. Encouragement Programs

Strategies for community involvement in bicycle improvements will be important to ensure broad-based support to help secure financial resources. Raising awareness for the benefits of bicycling can range from small incremental activities by non-profit groups, to efforts by the largest employers in the county. Targeting these encouragement programs to specific user groups improves their effectiveness. Specific programs are described in this section.

8.2.1. Individualized Social Marketing

In the US, many cities are interested in an emerging transportation demand management program based on individualized socialized marketing. The first such program was created in Perth, Australia and named TravelSmart®. Several communities, including Portland, Oregon and Alameda, California have planned and implemented similar individualized marketing programs aimed at shifting residents' travel mode away from drive-alone trips. Marin County is currently undergoing a similar program. This type of marketing program was proven to be successful for increasing bicycle and pedestrian mode share and integrating marketing and promotional programs into one strategy.

The COG should work with the jurisdictions' to develop individualized social marketing programs.

8.2.2. Bike and Walk to Work/School Day

Bike to Work Day is usually the third Thursday in May -Bike to Work month. San Benito Bike Week takes place every year in May, and is sponsored by the San Benito COG Rideshare Program. Past count events included a Kid's Bike Rodeo, Bike to Church Day, Bike to Work/School Day, and a Bikes Count Discount Program. The COG should continue to support Bike Week.

The COG should also encourage residents to participate in the annual international Walk-to-School Day held each October. This event raises the profile of walking among children. Local Walk-to-School days can be held annually in conjunction with the school-related events and provide parents with an opportunity to set an example for their children.

The COG should continue these annual events and work to make them bigger encouraging more bicyclists countywide.

Way to Go Sausalito! is an individualized social marketing program to increase nonmotorized transportation

The San Francisco Bicycle Coalition and Municipal Transportation Agency gives bicycle lights away for daylight savings time.

Source: SFBC

8.2.3. Bicycle Light Campaign

A bicycle light give away is an excellent way to promote bicycle safety. The COG could coordinate this campaign. Often, light giveaways occur at daylight savings time in the fall when darkness comes earlier.

The COG should work with the police department to study whether there is no light bicycling that occurs at night. Based on these results, lights should be ordered and handed to riders in need.

8.3. Enforcement Programs

Enforcement programs work to bring awareness to bicyclists and pedestrians through the increased efforts of the Sherriff and Police Departments, and even the public. Enforcement measures may target specific locations or larger areas. The following suggestions represent possible ways for the San Benito COG to interact with the San Benito County Sherriff's Department and the Hollister Police Department to prioritize enforcement activities, and receive valuable statistics regarding collisions that help determine targets for future education and encouragement programs. In addition to these programs, it is suggested that San Benito COG work with law enforcement to highlight the importance of understanding and enforcing bicycling-related California Vehicle Codes into their regular law enforcement training curriculum.

8.3.1. Continue to Enforce Traffic Laws

Citations issued for moving violations are bicycle-safety education opportunities. While proactive measures are best, classes to correct errant roadway behavior should be developed by the COG in partnership with police and offered at traffic school when deemed appropriate. San Benito's curriculum should focus primarily on bicycling skills including: bicycling in traffic, share the road concepts, and rights and responsibilities of both the bicyclist and the motorist. As an alternative to a fine for a bicycle-related violation, offenders might be given the option of enrolling in a traffic school program with an emphasis on bicycle issues. Such a program could also be an option for non-bicycle related traffic infractions.

In a crosswalk enforcement operation, law enforcement targets motorists who fail to yield to pedestrians in school crosswalk. A plain-clothes "decoy" police officer ventures into a crosswalk or crossing guard-monitored location, and motorists who do not yield are given a citation by a second officer stationed nearby. Typically a motorcycle officer issues the citations. The police department or school district may alert the media to crosswalk enforcement operation to increase public awareness of the issue of crosswalk safety, and news cameras may accompany the police officers to report on the operation.

The Sherriff's Department and the Hollister Police Department should continue to perform enforcement of applicable laws on all bikeway and pedestrian facilities. Specifically, this should occur at historically high-collision areas. Spot enforcement should be highly visible, and publicly advertised. It may take the form of crosswalk stings, handing out informational sheets to motorists,

bicyclists and pedestrians, or enforcing speed limits and right-of-way at shared use path-roadway intersections.

8.4. Evaluation Programs

8.4.1. Annual Bicycle and Pedestrian Counts and Surveys

Many jurisdictions do not perform regular bicycle and pedestrian user counts. As a result, they do not have a mechanism for tracking ridership trends and pedestrian activity over time or for evaluating the impact of projects, policies, and programs. It is recommended that the COG perform or supervise biannual counts of bicyclists and pedestrians according to national practices. The National Bicycle and Pedestrian Documentation Project (www.bikepeddocumentation.org) has developed a recommended methodology, survey, count and reporting forms, and can be modified to serve the needs and interests of individual jurisdictions. The counts and surveys can be conducted either by staff or by volunteers.

If desired, further bicycle and pedestrian data collection opportunities may be pursued as well, such as:

- Including before-and-after bicycle/pedestrian/vehicle data collection on priority roadway projects.
- Requiring counting of bicyclists/pedestrians in all traffic studies
- Purchasing National Household Travel Survey add-on

Results of this program are an excellent resource for grants, reporting to the public, and validating bicycle expenditures.

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9. Implementation

This chapter identifies steps towards implementing the proposed facilities and programs in this plan and the estimated costs for these improvements.

9.1. Implementation Process

The steps required to implement projects identified in this Plan will vary by project. Many signing and striping projects are exempt for the California Environmental Quality Act (CEQA) requirements because they do not result in significant impacts and are categorically exempt from environmental review. More complex projects with potential environmental impacts, like the proposed Class I pathways, typically include the following steps:

- Preparation of a Feasibility Study involving a conceptual design (with consideration of possible alternatives and environmental issues) and cost estimate for individual projects as needed.
- Secure, as necessary, outside funding and any applicable environmental approvals.
- Approval of the project by the local government.
- Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
- Construction of Project.

Projects exempt from CEQA can be implemented as funding becomes available and in conjunction with other infrastructure improvements such as repaving, overlay and curb and gutter projects.

9.2. Ranking Process

The intent of ranking projects is to create a prioritized list of bicycle projects for construction. As projects are constructed, lower ranked projects move up the list. The project list and individual projects outlined in the San Benito Bikeways and Pedestrian Master Plan are flexible concepts that serve as implementation guidelines. The high-priority project list, and perhaps the overall system and segments themselves, may change over time as a result of changing bicycling and walking patterns, land use patterns, implementation constraints and opportunities, and the development of other transportation system facilities. The Council of Governments (COG), in conjunction with the County and Cities, should review the project list at regular intervals to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bicycle network in a logical and efficient manner.

In **Chapter 6** of this plan, bikeway projects are identified by jurisdiction as well as street route/name. To facilitate the ranking process, in this chapter bikeways along the same route that may be in more than one jurisdiction are identified as one project. San Benito jurisdictions, in association with the COG, should complete these projects at one time rather than implementing improvements along routes with a piecemeal approach.

Chapter 7 lists the pedestrian projects. Specific pedestrian improvements identified in the chapter are all high priority and should be implemented by themselves and in conjunctions with other larger projects.

9.2.1. Criteria and Scores

Ranking criteria used for this plan include connections to parks, major employment centers, schools, closure of gaps in the existing network, public input and safety. It was developed with input from the COG, Bicycle and Pedestrian Advisory Committee (BPAC) and Technical Advisory Committee (TAC). The ranking criteria are described in **Table 9-1**. The overall score of a project is the sum of individual criteria. Projects are placed into three phasing groups: Tier 1, Tier 2 and Tier 3.

- >20 Points: Tier 1 projects are the highest potential bicycle projects and intended for near-term project implementation within 1-5 years.
- 10-20 Points: Tier 2 projects are intended for development within 6-10 years.
- <10 Points: Tier 3 projects are projects that are not currently ready to be implemented, but are included as long-term potential bicycle-specific projects over the next 11-20 years.

Table 9-1: Project Ranking Criteria

Criteria	Description	Maximum Score
Connections Parks	Parks and recreational facilities are bicycle attractors. Scoring is based on the number of parks and recreational facilities within a ½ mile of the proposed improvement with more attractors equaling higher scores. The maximum number of parks within the buffer is seven.	10
Connections to Major Employment Centers	Scoring for this criteria is based the density of the top 10 major employers within ½ mile of recommended improvements. The maximum employer density within the buffer is five.	10
Connections to Schools	This scoring is based on the density of schools within ½ mile of the proposed bikeway. Projects with more schools score higher. The maximum number of schools within the buffer is six.	10
Gap Closure in Existing Network	Projects that close gaps in the existing network will have higher scores. Projects were scored by either a yes or no.	10
Public Input	Projects that have been indicated by the public as important at public meetings and by communication with the COG have higher scores. The maximum number of comments a project received is five.	10
Safety	This ranking is based on SWITRS data identifying corridors with high incidents of bicycle collisions. Proposed improvements along streets with high frequencies of collisions have greater scores. The maximum number of collisions within the buffer is five.	10
	Maximum Score	60

Table 9-2 is a list of projects prioritized into the three Tiers. **Table 9-2** also identifies projects within one half mile of a school and therefore considered Safe Routes to School projects.

Table 9-2: Prioritized Projects by Tier

Rank	Tier	Class	Name	Project ID	From	To	Within ½ Mile of School	Proximity to Schools Score	Proximity to Parks Score	Proximity to Major Employers Score	Collision Score	Gap Closure Score	Public Input Score	Total Score
Tier 1														
1.	1	II	Sunnyslope Rd	H-24	Memorial Dr	Cerra Vista Dr	✓	5.00	5.71	8.00	6.00	10.00	4.00	38.71
2.	1	II	Nash Rd/Tres Pinos Rd	U-13, U-14, H-14, H-25	East of San Benito River	Airline Hwy	✓	6.67	2.86	8.00	10.00	10.00	0.00	37.52
3.	1	II	Airline Hwy	U-3, U-4, H-3	Sunset Dr	Quien Sabe Rd	✓	8.33	4.29	10.00	4.00	0.00	10.00	36.62
4.	1	II	Central Ave-3rd St	H-6	Bridgevale Rd	East St	✓	6.67	10.00	4.00	10.00	0.00	0.00	30.67
5.	1	III	South St/Hillcrest Rd	H-35, H-41	Westside Blvd	Hillcrest Rd East of McCray St	✓	10.00	8.57	4.00	8.00	0.00	0.00	30.57
6.	1	II	Ladd Ln	H-9	Tres Pinos Rd	Hillock Dr	✓	5.00	2.86	8.00	4.00	10.00	0.00	29.86
7.	1	I	San Benito River Trail	U-1, H-1	San Juan Bautista Park	Airline Hwy	✓	8.33	7.14	6.00	0.00	0.00	8.00	29.48
8.	1	III	Sally St	H-17	3rd St	Nash Rd	✓	5.00	7.14	6.00	4.00	0.00	6.00	28.14
9.	1	II	Memorial Dr	H-12, H-47	Sunset Dr	Fallon Rd	✓	8.33	5.71	8.00	6.00	0.00	0.00	28.05
10.	1	III	4th St	H-30	Westside Blvd	McCray St	✓	6.67	7.14	4.00	10.00	0.00	0.00	27.81
11.	1	II	San Felipe Rd	U-16, H-18	Santa Ana Rd	Pacheco Pass Hwy	✓	1.67	5.71	8.00	10.00	0.00	2.00	27.38
12.	1	II	Meridian St	H-13	Memorial Dr	McCray St	✓	5.00	8.57	4.00	8.00	0.00	0.00	25.57
13.	1	II	Hillcrest Rd	U-10, H-8	Prospect Ave	Fairview Rd	✓	8.33	8.57	4.00	2.00	0.00	2.00	24.90
14.	1	III	Sunset Dr	H-42	Cerra Vista Dr	Airline Hwy	✓	8.33	4.29	8.00	4.00	0.00	0.00	24.62
15.	1	II	Westside Blvd	H-28, H-29	Apricot Ln	Jan Ave	✓	6.67	5.71	0.00	0.00	10.00	0.00	22.38
16.	1	III	Monterey St	H-38	4th St	Nash Rd	✓	8.33	7.14	4.00	2.00	0.00	0.00	21.48
17.	1	II	McCray St	H-11	Hillcrest Rd	Santa Ana Rd	✓	3.33	7.14	4.00	6.00	0.00	0.00	20.48
18.*	1	I	Bicycle and Pedestrian Bridge	H-50	San Juan Rd Bridge	San Juan Rd Bridge		0.00	2.86	0.00	0.00	0.00	0.00	2.86
Tier 2														
19.	2	II	Westside Blvd Extension	H-43	Nash Rd	Ladd Ln	✓	5.00	0.00	4.00	0.00	10.00	0.00	19.00
20.	2	II	Line St	H-10	Nash Rd	Buena Vista Rd	✓	6.67	5.71	0.00	6.00	0.00	0.00	18.38
21.	2	II	Southside	U-20, H-23	Sunset Dr	Union Rd	✓	1.67	0.00	6.00	0.00	10.00	0.00	17.67
22.	2	III	Cerra Vista	H-31	Sunnyslope Rd	Union Rd	✓	3.33	4.29	0.00	0.00	10.00	0.00	17.62

Rank	Tier	Class	Name	Project ID	From	To	Within ½ Mile of School	Proximity to Schools Score	Proximity to Parks Score	Proximity to Major Employers Score	Collision Score	Gap Closure Score	Public Input Score	Total Score
23.	2	II	San Juan Rd	U-18, H-20	Hwy 156	Westside Blvd	✓	5.00	8.57	0.00	4.00	0.00	0.00	17.57
24.	2	III	Hawkins St	H-34	Monterey St	Prospect Ave	✓	6.67	4.29	4.00	2.00	0.00	0.00	16.95
25.	2	III	Santa Ana Rd	U-7, U-19, H-5, H-22	Railroad Tracks	Fairview Rd	✓	5.00	7.14	2.00	2.00	0.00	0.00	16.14
26.	2	II	Hwy 156	U-11, S-3	The Alameda	Buena Vista Rd	✓	1.67	4.29	6.00	0.00	0.00	4.00	15.95
27.	2	III	Clearview Dr	U-24, H-32	Meridian St	Sunset Dr	✓	8.33	7.14	0.00	0.00	0.00	0.00	15.48
28.	2	I	Union Pacific RR	U-2, H-2	3rd St	County Line	✓	1.67	5.71	4.00	4.00	0.00	0.00	15.38
29.	2	II	Buena Vista Rd/North Street	H-21	Hollister City Limit East of Millard Rd	Railroad Tracks	✓	5.00	10.00	0.00	0.00	0.00	0.00	15.00
30.	2	II	Fairview Rd	U-8, U-9, H-7	Airline Hwy	Spring Grove Rd: Spring Grove Elementary School	✓	3.33	2.86	2.00	0.00	0.00	6.00	14.19
31.	2	II	Union Rd	U-21,U-22, H-26	Cienega Rd	Fairview Rd	✓	6.67	1.43	2.00	0.00	0.00	4.00	14.10
32.	2	II	Valley View Dr	U-23, H-27	Sunset Dr	Union Rd	✓	5.00	2.86	4.00	2.00	0.00	0.00	13.86
33.	2	III	Bolsa Rd	U-5, H-44	San Felipe Rd	County Line		0.00	0.00	2.00	0.00	10.00	0.00	12.00
34.	2	III	Franklin St	S-6	4th St	End of 4th St/SJB Historical Park	✓	1.67	4.29	4.00	2.00	0.00	0.00	11.95
Tier 3														
35.	3	III	The Alameda-Salinas Rd	U-34, S-10	San Juan School	Old Stagecoach Rd	✓	1.67	4.29	4.00	0.00	0.00	0.00	9.95
36.	3	III	4th St - The Alameda	S-8	The Alameda	Monterey St	✓	1.67	4.29	4.00	0.00	0.00	0.00	9.95
37.	3	I	San Juan Bautista Historical Park	S-1	1st St	Franklin St	✓	1.67	4.29	4.00	0.00	0.00	0.00	9.95
38.	3	III	4th St - San Jose St	S-5	4th St	1st St	✓	1.67	4.29	4.00	0.00	0.00	0.00	9.95
39.	3	III	Second St	S-9	San Jose St	Monterey St	✓	1.67	4.29	4.00	0.00	0.00	0.00	9.95
40.	3	III	Union Rd	U-35	Hwy 156	Cienega Rd	✓	3.33	0.00	2.00	0.00	0.00	4.00	9.33
41.	3	II	Planned Road 2	H-48	McCloskey Rd	Flynn Rd (loops North around airport)		0.00	0.00	8.00	0.00	0.00	0.00	8.00

Rank	Tier	Class	Name	Project ID	From	To	Within ½ Mile of School	Proximity to Schools Score	Proximity to Parks Score	Proximity to Major Employers Score	Collision Score	Gap Closure Score	Public Input Score	Total Score
42.	3	I	Southside Rd	U-38	Bend in Southside Rd	Pinnacles Community School	✓	1.67	0.00	6.00	0.00	0.00	0.00	7.67
43.	3	III	Steinbeck Drive	H-45	Westside Blvd	Line St	✓	5.00	1.43	0.00	0.00	0.00	0.00	6.43
44.	3	III	Meridian St	U-27	Memorial Dr	End of Meridian St	✓	3.33	2.86	0.00	0.00	0.00	0.00	6.19
45.	3	III	Monterey St	S-7	4th St	1st St	✓	1.67	4.29	0.00	0.00	0.00	0.00	5.95
46.	3	II	1st St	S-2	North St	Monterey St	✓	1.67	4.29	0.00	0.00	0.00	0.00	5.95
47.	3	II	San Juan Hwy	U-17, S-4	Old San Juan Hwy	Ahwahnee St	✓	1.67	1.43	2.00	0.00	0.00	0.00	5.10
48.	3	II	Bridgevale Rd	U-6, H-4	San Juan Rd	Central Ave		0.00	2.86	0.00	2.00	0.00	0.00	4.86
49.	3	III	Fallon Rd	U-25, H-33	Frontage Rd	Fairview Rd		0.00	0.00	4.00	0.00	0.00	0.00	4.00
50.	3	III	Beverly Dr	H-51	Hillcrest Rd	Sunnyslope Rd		0.00	1.43	0.00	2.00	0.00	0.00	3.43
51.	3	III	Santa Ana Rd/Buena Vista Rd	U-32	Hwy 156	Bend in Buena Vista Rd		0.00	2.86	0.00	0.00	0.00	0.00	2.86
52.	3	II	Planned Road 1	H-46	Fairview Rd	San Felipe Frontage Rd		0.00	0.00	2.00	0.00	0.00	0.00	2.00
53.	3	I	San Felipe Class I	H-49	Wright Rd	Flynn Rd		0.00	0.00	2.00	0.00	0.00	0.00	2.00
54.	3	III	Hwy 25	U-36	Quien Sabe Rd	Pinnacles Monument	✓	1.67	0.00	0.00	0.00	0.00	0.00	1.67
55.	3	I	Southside School Connection	U-37	San Benito River Trail	Southside School	✓	1.67	0.00	0.00	0.00	0.00	0.00	1.67
56.	3	III	Santa Ana Valley Rd	U-31	John Smith Rd	Quien Sabe Rd		0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Project 18 will meet future demand for Riverside Park as well as future demand for the San Benito River Trail.

9.3. Project Cost Estimates

This section lists cost estimates for recommended bikeway and pedestrian improvement projects. After developing the proposed bicycle network and pedestrian improvements, cost estimates were developed for the projects. **Table 9-3** outlines the unit costs for developing bicycle facilities. The costs for developing pedestrian facilities were developed using **Table 9-4**.

Table 9-3: Estimated Bicycle Facility Basic Unit Costs

Facility	Per Mile Cost
Class I Multi-Use Path	$880,100
Class II Bike Lane	$29,800
Class III Bicycle Route	$13,300
Bicycle Boulevard with traffic calming	$409,900

Table 9-4: Estimated Pedestrian Improvement Basic Unit Costs

Item	Unit	Unit Cost
Audible Signals	Each	$1,000
Countdown Signal Heads	Each	$800
Crosswalk - High Visibility	Each	$1,200
Crosswalk - In Pavement Flashing Lights	Each	$75,000
Crosswalk - Transverse	Each	$500
Curb Extension - Additional Installments	Each	$50,000
Curb Extension - First Installment	Each	$100,000
Curb Ramp Retrofit (diagonal, per corner)	Each	$2,000
Curb Ramp Retrofit (perpendicular, per corner)	Each	$5,000
Pedestrian Push Button	Each	$800
Railroad Crossing	Each	$150,000
Sidewalk - 5' Wide	Linear ft.	$45
Truncated Domes (retrofit plastic)	Each	$800

Unit costs presented here are planning level cost estimates based on typical or average cost experienced by California cities and counties when constructing similar projects. Planning level cost estimates do not reflect project specific factors such as intensive grading, landscaping, intersection modifications, and right-of-way acquisition that may increase the actual cost of construction. These project specific cost factors are not included in all project specific cost estimates resulting in an unknown margin of error. Project costs for some segments may be significantly greater.

Before constructing recommended facilities, additional field work will be required to verify conditions. These include but are not limited to: roadway width, travel lanes, actual motor vehicle speeds, motor vehicle volumes, bicycle and motor vehicle travel patterns and conflicts, and pavement conditions. Final bikeway treatments should be selected based on verified conditions.

9.3.1. Bikeway Project Cost Estimates

Table 9-5 summarizes the cost estimates for the recommended bicycle improvements organized into project ranking and tier. Tier 1 includes short-term projects, Tier 2 includes mid-term projects, and Tier 3 includes long-term projects. The total tier costs have been rounded to the nearest hundred thousand dollars. Tiers 1 and 2 include two Class I facilities that have significant length. These Class I facilities increase the estimated costs of each tier. The estimated cost of Tier 1 without the San Benito River Bike Trail and the Bicycle and Pedestrian Bridge is approximately $750,000. The estimated cost of Tier 2 without the UPRR Path is $860,000. Tier 3 includes four Class I bike paths, all of which increase the estimated cost of the tier.

Table 9-5: Estimated Bikeway Improvement Costs

Rank	Name	Project ID	From	To	Class	Miles	Cost
Tier 1							
1.	Sunnyslope Rd	H-24	Memorial Dr	Cerra Vista Dr	II	0.70	$20,800
2.	Nash Rd/Tres Pinos Rd	U-13, U-14, H-14, H-25	East of San Benito River	Airline Hwy	II	1.43	$42,600
3.	Airline Hwy	U-3, U-4, H-3	Sunset Dr	Quien Sabe Rd	II	4.91	$146,300
4.	Central Ave-3rd St	H-6	Bridgevale Rd	East St	II	1.66	$49,500
5.	South St/Hillcrest Rd	H-35, H-41	Westside Blvd	Hillcrest Rd east of McCray St	III	1.04	$13,900
6.	Ladd Ln	H-9	Tres Pinos Rd	Hillock Dr	II	0.16	$4,900
7.	San Benito River Trail	U-1, H-1	San Juan Bautista Park	Airline Hwy	I	16.09	$14,164,700
8.	Sally St	H-17	3rd St	Nash Rd	III	0.96	$12,800
9.	Memorial Dr	H-12, H-47	Sunset Dr	Fallon Rd	II	4.22	$125,700
10.	4th St	H-30	Westside Blvd	McCray St	III	0.83	$11,000
11.	San Felipe Rd	U-16, H-18	Santa Ana Rd	Pacheco Pass Hwy	II	6.61	$196,900
12.	Meridian St	H-13	Memorial Dr	McCray St	II	0.85	$25,400
13.	Hillcrest Rd	U-10, H-8	Prospect Ave	Fairview Rd	II	1.77	$52,800
14.	Sunset Dr	H-42	Cerra Vista Dr	Airline Hwy	III	0.84	$11,200
15.	Westside Blvd	H-28, H-29	Apricot Ln	Jan Ave	II	0.28	$8,300
16.	Monterey St	H-38	4th St	Nash Rd	III	0.88	$11,700
17.	McCray St	H-11	Hillcrest Rd	Santa Ana Rd	II	0.61	$18,300
18.	Bicycle and Pedestrian Bridge	H-50	San Benito River Bridge	San Benito River Bridge	I	0.06	$1,500,000
						Total Tier 1	**$16,000,000**

Rank	Name	Project ID	From	To	Class	Miles	Cost
Tier 2							
19.	Westside Blvd Extension	H-43	Nash Rd	Ladd Ln	II	1.49	$44,400
20.	Line St	H-10	Nash Rd	Buena Vista Rd	II	1.16	$34,700
21.	Southside	H-23	Sunset Dr	Union Rd	II	0.16	$2,400
22.	Cerra Vista	H-31	Sunnyslope Rd	Union Rd	III	0.73	$9,700
23.	San Juan Rd	U-18, H-20	Hwy 156	Westside Blvd	II	2.28	$30,400
24.	Hawkins St	H-34	Monterey St	Prospect Ave	III	0.45	$6,000
25.	Santa Ana Rd	U-7,U-19,H-5,H-22	Railroad Tracks	Fairview Rd	II	2.15	$64,000
26.	Hwy 156	U-11, S-3	The Alameda	Buena Vista Rd	II	6.88	$205,100
27.	Clearview Dr	U-24, H-32	Meridian St	Sunset Dr	III	1.15	$15,300
28.	Union Pacific RR	U-2, H-2	3rd St	County Line	I	8.81	$7,755,700
29.	Buena Vista Rd/ North Street	H-21	Hollister City Limit east of Millard Rd	Railroad Tracks	II	1.83	$54,400
30.	Fairview Rd	U-8, U-9, H-7	Airline Hwy	Spring Grove Elementary School	II	7.05	$210,100
31.	Union Rd	U-21,U-22, H-26	Cienega Rd	Fairview Rd	II	1.54	$46,000
32.	Valley View Dr	U-23, H-27	Sunset Dr	Union Rd	II	0.52	$15,500
33.	Bolsa Rd	U-5, H-44	San Felipe Rd	County Line	III	8.63	$114,700
34.	Franklin St	S-6	4th St	End of 4th St/SJB Historical Park	III	0.17	$2,300
					Total Tier 2		**$8,600,000**
Tier 3							
33.	The Alameda-Salinas Rd	U-34, S-10	San Juan School	Old Stagecoach Rd	III	0.65	$8,700
36.	4th St - The Alameda	S-8	The Alameda	Monterey St	III	0.54	$7,200
37.	San Juan Bautista Historical Park	S-1	1st St	Franklin St	I	0.29	$253,000
38.	4th St - San Jose St	S-5	4th St	1st St	III	0.16	$2,100
39.	Second St	S-9	San Jose St	Monterey St	III	0.14	$1,900
40.	Union Rd	U-35	Hwy 156	Cienega Rd	III	3.83	$50,900
40.	Planned Road 2	H-48	McCloskey Rd	Flynn Rd (loops North around airport)	II	5.61	$167,300
42.	Southside Rd	U-38	Bend in Southside Rd	Pinnacles Community School	I	0.90	$789,300
43.	Steinbeck Drive	H-45	Westside Blvd	Line St	III	0.10	$1,300
44.	Meridian St	U-27	Memorial Dr	End of Meridian St	III	0.47	$6,200
45.	Monterey St	S-7	4th St	1st St	III	0.16	$66,200
46.	1st St	S-2	North St	Monterey St	II	0.10	$2,900
47.	San Juan Hwy	U-17, S-4	Old San Juan Hwy	Ahwahnee St	II	2.35	$70,000
48.	Bridgevale Rd	U-6, H-4	San Juan Rd	Central Ave	II	0.26	$7,700

Rank	Name	Project ID	From	To	Class	Miles	Cost
49.	Fallon Rd	U-25, H-33	Frontage Rd	Fairview Rd	III	2.29	$30,500
50.	Beverly Dr	H-51	Hillcrest Rd	Sunnyslope Rd	III	0.53	$7,100
51.	Santa Ana Rd/Buena Vista Rd	U-32	Hwy 156	Bend in Buena Vista Rd	III	0.74	$9,900
52.	Planned Road 1	H-46	Fairview Rd	San Felipe Frontage Rd	II	2.04	$60,700
53.	San Felipe Class I	H-49	Wright Rd	Flynn Rd	I	0.84	$741,600
54.	Hwy 25	U-36	Quien Sabe Rd	Pinnacles Monument	III	24.50	$325,900
55.	Southside School Connection	U-37	San Benito River Trail	Southside School	I	0.68	$596,600
56.	Santa Ana Valley Rd	U-31	John Smith Rd	Quien Sabe Rd	III	1.75	$23,300
						Total Tier 3	**$3,200,000**

9.3.2. Pedestrian Project Cost Estimates

The tables below outline recommended pedestrian improvement projects and their estimated costs. All identified are projects within one-half mile of a school that may be eligible for Safe Routes to School project. The total estimated cost for each type of improvement project has been rounded to the nearest hundred thousand dollars.

Table 9-6 summarizes the cost estimates for the recommended sidewalk gap improvements previously outlined. The costs include the installation of a five foot sidewalk.

Table 9-6: Estimated Sidewalk Gap Improvement Costs

Project Number	Street	Jurisdiction	Cost
SI-1	Buena Vista Rd	Hollister	$41,400
SI-2	Buena Vista Rd	Hollister	$48,000
SI-3	Buena Vista Rd	Hollister	$39,000
SI-4	Santa Ana Rd	Hollister	$373,000
SI-5	Line St	Hollister	$34,000
SI-6	Hillcrest Rd	Hollister	$261,000
SI-7	Sunnyslope Rd	Hollister	$163,000
SI-8	2nd St	San Juan Bautista	$39,000
SI-9	Ladd Ln	Hollister	$25,000
SI-10	Hillcrest Rd	Hollister	$121,000
SI-11	San Juan Rd	Hollister	$272,000
SI-12	Graf Rd	Hollister	$29,000
SI-13	San Juan Rd	Hollister	$63,000
		Total	**$1,500,000**

Table 9-7 summarizes the cost estimates for the recommended signalized intersection improvements outlined in **Chapter 7**.

Table 9-7: Estimated Signalized Intersection Improvement Costs

Project Number	Street	Improvements	Jurisdiction	Cost
SCI-1	Santa Ana Rd and McCray St	• Audible Signals • Countdown Signals • Transverse Crosswalks	Hollister	$12,400
SCI-2	San Benito St and 4th St	• Audible Signals • Countdown Signals • High Visibility Crosswalks • Transverse Crosswalks • Curb Extensions	Hollister	$263,800
SCI-3	Sunset Dr and Airline Hwy	• Audible Signals • Countdown Signals • Transverse Crosswalks	Hollister	$12,400
SCI-4	San Benito St and Santa Ana Road	• Audible Signals • Countdown Signals • Transverse Crosswalks (2)	Hollister	$11,400
			Total	**$300,000**

Table 9-8 summarizes the cost estimates for the recommended unsignalized intersection improvements described in **Chapter 7**.

Table 9-8: Estimated Unsignalized Intersection Improvement Costs

Project Number	Street	Improvements	Jurisdiction	Cost
UCI-1	San Benito St and 7th St	• High Visibility Crosswalks • Curb Extensions	Hollister	$252,400
UCI-2	San Benito St and 6th St	• High Visibility Crosswalks • Curb Extensions	Hollister	$252,400
UCI-3	San Benito St and Hawkins St	• High Visibility Crosswalks • Curb Extensions	Hollister	$252,400
UCI-4	The Alameda adjacent to San Juan School	• High Visibility Crosswalks	San Juan Bautista	$1,200
UCI-5	Path, across Prospect Ave to Hawkins St	• High Visibility Crosswalks	Hollister	$1,200
UCI-6	E Park Ave and Prospect Ave	• High Visibility Crosswalks	Hollister	$4,800
UCI-7	Hillcrest Rd and Prospect Ave and South St	• High Visibility Crosswalks	Hollister	$1,200
UCI-8	Meridian St and Memorial Dr	• High Visibility Crosswalks	Hollister	$3,600
UCI-9	Hillcrest Rd and Memorial Dr	• High Visibility Crosswalks	Hollister	$3,600
UCI-10	4th St and Monterey St	• High Visibility Crosswalks • In-pavement Flashers	Hollister	$152,000
			Total	**$900,000**

Table 9-9 summarizes the cost estimates for the pedestrian railroad crossing improvements outlined in **Chapter 7**. These improvements include sidewalks, signals and truncated domes. The City should work with UPRR to develop these crossings. If all of these crossings are not possible, Hollister and the COG should study the crossings that are needed most for pedestrians.

Table 9-9: Estimated Pedestrian Railroad Crossing Improvement Costs

Project Number	Street	Jurisdiction	Cost
RRI-1	2nd St	Hollister	$150,000
RRI-2	3rd St	Hollister	$150,000
RRI-3	4th St	Hollister	$150,000
RRI-4	East St	Hollister	$150,000
RRI-5	North St	Hollister	$150,000
RRI-6	Hillcrest Rd	Hollister	$150,000
RRI-7	San Benito St and Railroad	Hollister	$150,000
		Total	**$1,000,000**

Buildout of the proposed bicycle network will result in over 130 miles of bicycle facilities and significant pedestrian improvements. As **Table 9-10** shows, the estimated total cost of constructing all the recommended bicycle and pedestrian project is approximately $32 million.

Table 9-10: Estimated Cost Summary of Proposed Improvements

Project Category	Cost
Tier 1 Bikeway Projects	$16,000,000
Tier 2 Bikeway Projects	$8,600,000
Tier 3 Bikeway Projects	$3,200,000
Sidewalk Gap Improvements	$1,500,000
Crosswalk Improvements (Signalized Intersections)	$300,000
Crosswalk Improvements (Unsignalized Intersections)	$900,000
Railroad Crossing Improvements	$1,100,000
Total	**$32,000,000**

9.4. Bikeway Maintenance Cost Estimates

Bikeways require regular maintenance and repair. On-street bikeways are maintained as part of the normal roadway maintenance program and extra emphasis should be put on keeping the bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility. The high cost of maintaining Class I facilities may be shared among various agencies or departments. The typical maintenance costs for the bikeway network are shown in **Table 9-11**.

Using cost estimates in **Table 9-11,** it is estimated that maintenance of the bikeway network envisioned by this plan as well as existing facilities would cost approximately $405,000 annually (rounded to nearest thousand).

Table 9-11: Bikeway Maintenance Frequency and Cost Estimates

Facility Type	Unit Cost	Description	Length (Miles)	Annual Cost	Notes
Class I	$8,500	Miles/Year	27.67	$240,000	Lighting and debris and removal of vegetation overgrowth.
Class II	$2,000	Miles/Year	58.82	$118,000	Repainting lane stripes and stencils, sign replacement as needed
Class III	$1,000	Miles/Year	51.55	$52,000	Sign and shared use stencil replacement as needed
Annual Cost				$405,000	

10. Funding Resources

Funding for bicycle and pedestrian projects, programs, and plans comes from a variety of different sources. This chapter covers Federal, State, regional and local sources of bicycle and pedestrian funding, as well as some non-traditional funding sources that have been used by local agencies to fund bicycle and pedestrian infrastructure and programs.

FUNDING GLOSSARY

CTC *California Transportation Commission*

FHWA *Federal Highway Administration*

MPO *Metropolitan Planning Organization*

RTIP *Regional Transportation Improvement Program*

RTP *Regional Transportation Plan*

RTPA *Regional Transportation Planning Agency*

SAFETEA-LU *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*

STIP *State Transportation Improvement Program*

10.1. Federal Funding Sources

The primary federal source of surface transportation funding—including bicycle facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 and 2003 through the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA). Also known as the federal transportation bill, the $286.5 billion SAFETEA-LU bill was passed in 2005 and authorizes Federal surface transportation programs for the five-year period between 2005 and 2009.

SAFETEA-LU funding is administered through the State (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA-LU programs require a local match of 11.47 percent. SAFETEALU funding is intended for capital improvements and safety and education programs and projects must relate to the surface transportation system.

Specific funding programs under SAFETEA-LU include, but are not limited to:

- Congestion Mitigation and Air Quality (CMAQ) – Funds projects that are likely to contribute to the attainment of national ambient air quality standards (the San Benito region is an attainment area and not currently qualified for CMAQ funding)
- Recreational Trails Program—$370 million nationally through 2009 for non-motorized trail projects
- Safe Routes to School Program—$612 million nationally through 2009
- Transportation, Community and System Preservation Program—$270 million nationally over five years
- Federal Lands Highway Funds—Approximately $4.5 billion dollars are available nationally through 2009.

10.1.1. Federal Lands Highway Funds

Federal Lands Highway Funds may be used to build bicycle facilities in conjunction with roads and parkways at the discretion of the department charged with administration of the funds. The projects must be transportation-related and tied to a plan adopted by the State and MPO (Metropolitan Transportation Commission). Federal Lands Highway Funds may be used for planning and construction.

10.1.2. Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation (TCSP) Program provides federal funding for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. This program provides communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. TCSP Program funds require a 20 percent match.

10.1.3. Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) is a block grant program which provides funding for bicycle projects, among many other transportation projects. Under the RSTP, Regional Transportation Planning Agencies (RTPA), such as the San Benito COG, prioritize and approve projects which will receive RSTP funds. The San Benito COG distributes the RSTP funds to local jurisdictions. RTPAs can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated. In California, 62.5 percent of RSTP funds are allocated according to population. The remaining 37.5 percent is available statewide.

10.1.4. Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a derivative of the STIP program and identifies projects which are needed to improve regional transportation. Such projects may include bicycle facilities, safety projects and grade separation, among many others. RTIP project planning, programming and monitoring may be funded up to 5 percent of total RTIP funds in urbanized regions. The COG prepares the RTIP, consisting of projects to be funded through STIP. The COG helps prioritize projects for the RTIP. Funded projects must be identified in the Regional Transportation Plan.

10.1.5. Recreational Trails Program

The Recreational Trails Program of SAFETEA-LU provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. In California, the funds are administered by the California

Department of Parks and Recreation. RTP projects must be ADA compliant. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails;
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Six million dollars was available in 2008.

www.fhwa.dot.gov/environmnet/rectrails/index.htm

10.1.6. Land and Water Conservation Fund

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015.

Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and are reimbursed for 50 percent of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and 40 percent of grants are reserved for Northern California.

10.1.7. Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments.

10.1.8. Conservation Grant Block Program

The U.S. Department of Energy Conservation Grant Block program funds are available to assist State, local, territorial and Tribal governments in implementing strategies to reduce fossil fuel emissions, energy use, and improve energy efficiency. Eligible programs include bike lanes, multi-use paths and pedestrian walkways.

10.2. Statewide Funding Sources

The State of California uses both federal sources and its own budget to fund the following bicycle and pedestrian projects and programs.

10.2.1. Bicycle Transportation Account

The Bicycle Transportation Account (BTA) provides state funding for local projects that improve the safety and convenience of bicycling for transportation. Because of its focus on transportation, BTA projects, including trail, must provide a transportation link. Funds are available for both planning and construction. BTA funding is administered by Caltrans and cities and counties must have an adopted Bicycle Transportation Plan in order to be eligible. Bicycle Transportation Plans must be approved by Caltrans. Out of $5 million available statewide, the maximum amount available for individual projects is $1.2 million.

http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm

10.2.2. Transportation Development Act Article 3

This state program specifies that one quarter cent of the gasoline tax is returned to the county of origin to fund transportation improvements in that county that primarily benefit bicyclists and pedestrians.

http://www.dot.ca.gov/hq/MassTrans/State-TDA.html

10.2.3. Wildlife Conservation Board Public Access Program

This program provides funding for the acquisition of lands or improvements that preserve wildlife habitat or provide recreational access for hunting, fishing or other wildlife-oriented activities. Up to $250,000 dollars is available per project, applications accepted quarterly. Projects eligible for funding include interpretive trails, river access, and trailhead parking areas. The State of California must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

http://www.wcb.ca.gov/

10.2.4. California Conservation Corps

The California Conservation Corps (CCC) is a public service program which occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project partner. In order to utilize CCC labor, project sites must be public land or be publicly accessible. CCC labor cannot be used to perform regular maintenance, however, they will perform annual maintenance, such as the opening of trails in the spring.

http://www.ccc.ca.gov/

10.2.5. Federal Safe Routes to School (SRTS) and California Safe Routes to School (SR2S)

Caltrans administers funding for Safe Routes to School projects through two separate and distinct programs: the state-legislated Program (SR2S) and the federally-legislated Program (SRTS). Both programs competitively award reimbursement grants with the goal of increasing the number of children who walk or bicycle to school. The programs differ in some important respects.

California Safe Routes to School Program expires January 1, 2013, requires a 10% local match, is eligible to cities and counties and targets children in grades K-12. The fund is primarily for construction, but up to 10% of the program funds can be used for education, encouragement, enforcement and evaluation activities. Forty-eight million dollars were available for Cycle 8 (FY 08/09 and 09/10).

The Federal Safe Routes to School Program expires September 30, 2009, reimburses 100%, is eligible for cities, counties, school districts, non-profits, and tribal organizations, and targets children in grades K-8. Program funds can be used for construction or for education, encouragement, enforcement and evaluation activities. Construction must be within 2 miles of a grade school or middle school. Forty-six million dollars are available for Cycle 2 (FY 08/09 and 09/10).

http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

10.2.6. Environmental Justice: Context Sensitive Planning Grants

The Caltrans administered Environmental Justice: Context Sensitive Planning Grants promotes context sensitive planning in diverse communities and funds planning activities that assist low-income, minority and Native American communities to become active participants in transportation planning and project development. Grants are available to transit districts, cities, counties and tribal governments. This State Highway Account at funds $1.5 million annually. The cap for statewide grants is $250,000.

http://www.dot.ca.gov/hq/tpp/grants.html

10.2.7. Office of Traffic Safety (OTS) Grants

The California Office of Traffic Safety distributes federal funding apportioned to California under the National Highway Safety Act and SAFETEA-LU. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle and pedestrian safety are included in the list of traffic safety priority areas. Eligible grantees are: governmental agencies, state colleges, and state universities, local city and county government agencies, school districts, fire departments and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include: potential traffic safety impact, collision statistics and rankings, seriousness of problems, and

performance on previous OTS grants. OTS expects to have $56 million in funding available statewide for FY 2006/07.

http://www.dot.ca.gov/hq/traffops/saferesr/

http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm

10.2.8. Community Based Transportation Planning Demonstration Grant Program

This fund, administered by Caltrans, provides funding for projects that exemplify livable community concepts including bicycle improvement projects. Eligible applicants include local governments, MPO's and RPTA's. A 20 percent local match is required and projects must demonstrate a transportation component or objective. There are $3 million dollars available annually statewide.

http://www.dot.ca.gov/hq/tpp/grants.html

10.3. Regional Funding Sources

10.3.1. Monterey Bay Unified Air Pollution Control District Vehicle Emission Reduction Grant Program

The Monterey Bay Unified Air Pollution Control District's AB 2766 Vehicle Emission Reduction Grant Program is a funding source for bicycle and pedestrian programs. The grants, which can be for up to $200,000, must achieve motor vehicle emission reduction and be implemented within two years. The grants are highly competitive and are based on cost effectiveness, VMT reduction, whether the project is an adopted transportation control measure, and whether it will help leverage other grant funds.

10.4. Non-Traditional Funding Sources

10.4.1. Community Development Block Grants

The CDBG program provides money for streetscape revitalization. Federal Community Development Block Grant Grantees may "use CDBG funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities, paying for planning and administrative expenses, such as costs related to developing a consolidated Plan and managing CDBG funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs."

$39 million in CDBG funds were distributed statewide in 2008.

www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm

10.4.2. Requirements for New Developments

With the increasing support for "routine accommodation" and "complete streets," requirements for new development, road widening and new commercial development provide opportunities to efficiently construct bicycle facilities.

10.4.3. Impact Fees

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on- and off-site bicycle improvements designed to encourage residents, employees and visitors to the new development to bike rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical to ensure legal soundness.

10.4.4. Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act was passed by the Legislature in 1982 in response to reduced funding opportunities brought about by the passage of Proposition 13. The Mello-Roos Act allows any county, city, special district, school district or joint powers of authority to establish a Community Facility Districts (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within that district. CFDs must be approved by a two-thirds margin of qualified voters in the district. Property owners within the district are responsible for paying back the bonds. Pedestrian facilities are eligible for funding under CFD bonds.

http://mello-roos.com/pdf/mrpdf.pdf

10.4.5. Volunteer and Public-Private Partnerships

Volunteer programs may substantially reduce the cost of implementing some of the proposed pathways. Use of groups such as the California Conservation Corp (who offers low cost assistance) will be effective at reducing project costs. Local schools or community groups may use the bikeway projects as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right of way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations 'adopt' a bikeway and help construct and maintain the facility.

10.4.6. Operation Lifesaver-Rail Safety Education

Rail education is important to San Benito County due to at-grade rail crossings. Operation Lifesaver is a non-profit organization that provides public education to end collisions, deaths, and injuries from locations where roads cross railroads. The organization was established in 1972 and is sponsored by governments and the railroad industry. Its education resources are available online.

San Benito County could work with local school districts on implementing these education programs. Operation Lifesaver provides lesson plans for all grades. The Organization also has

speakers and videos available as well as certificates for participating students. A staff member could become an Operation Lifesaver presenter and visit schools helping to educate younger walkers about train traffic.

http://www.oli.org/

Appendix A. County Land Use Maps

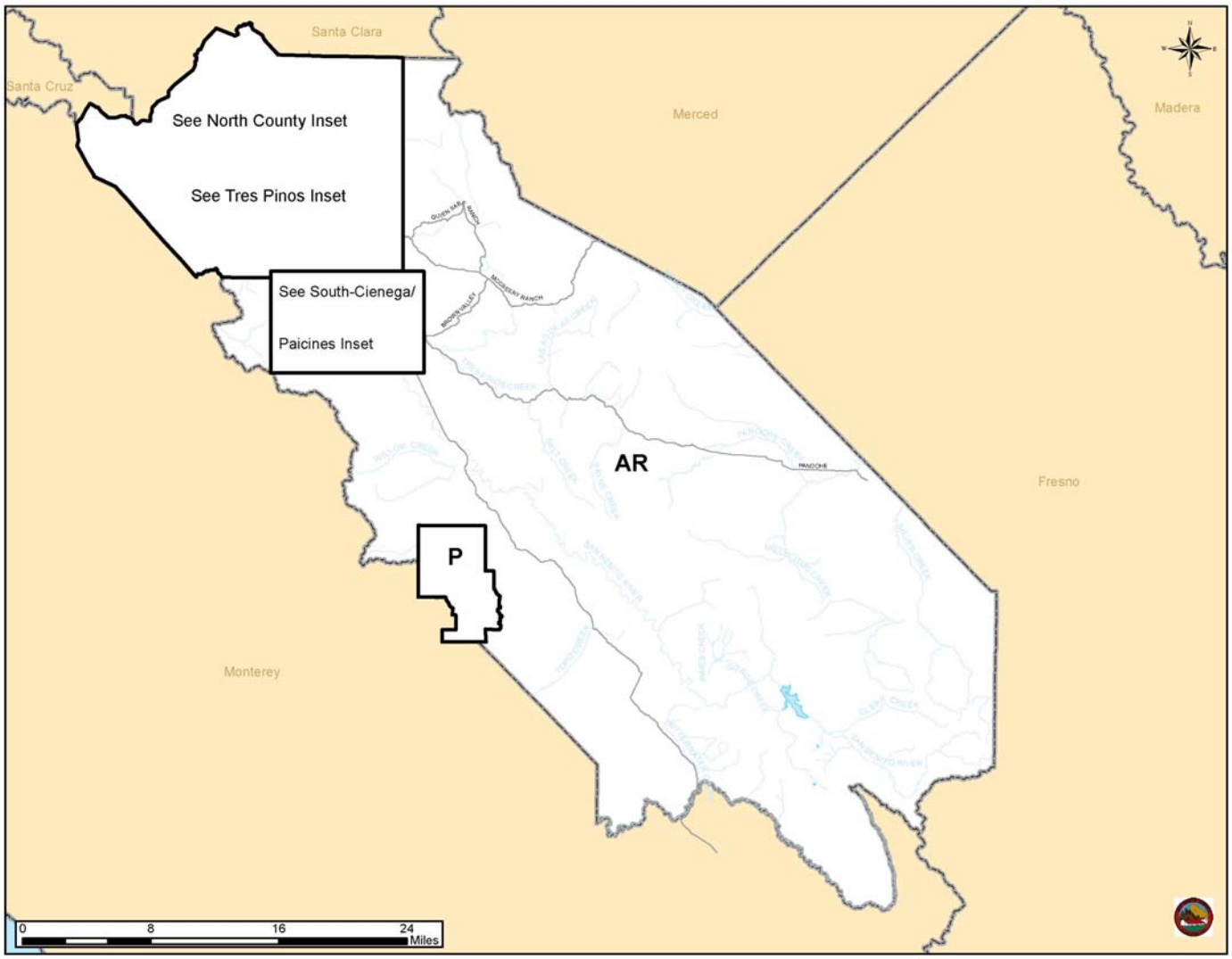


Figure A-1: San Benito County Land Use Map

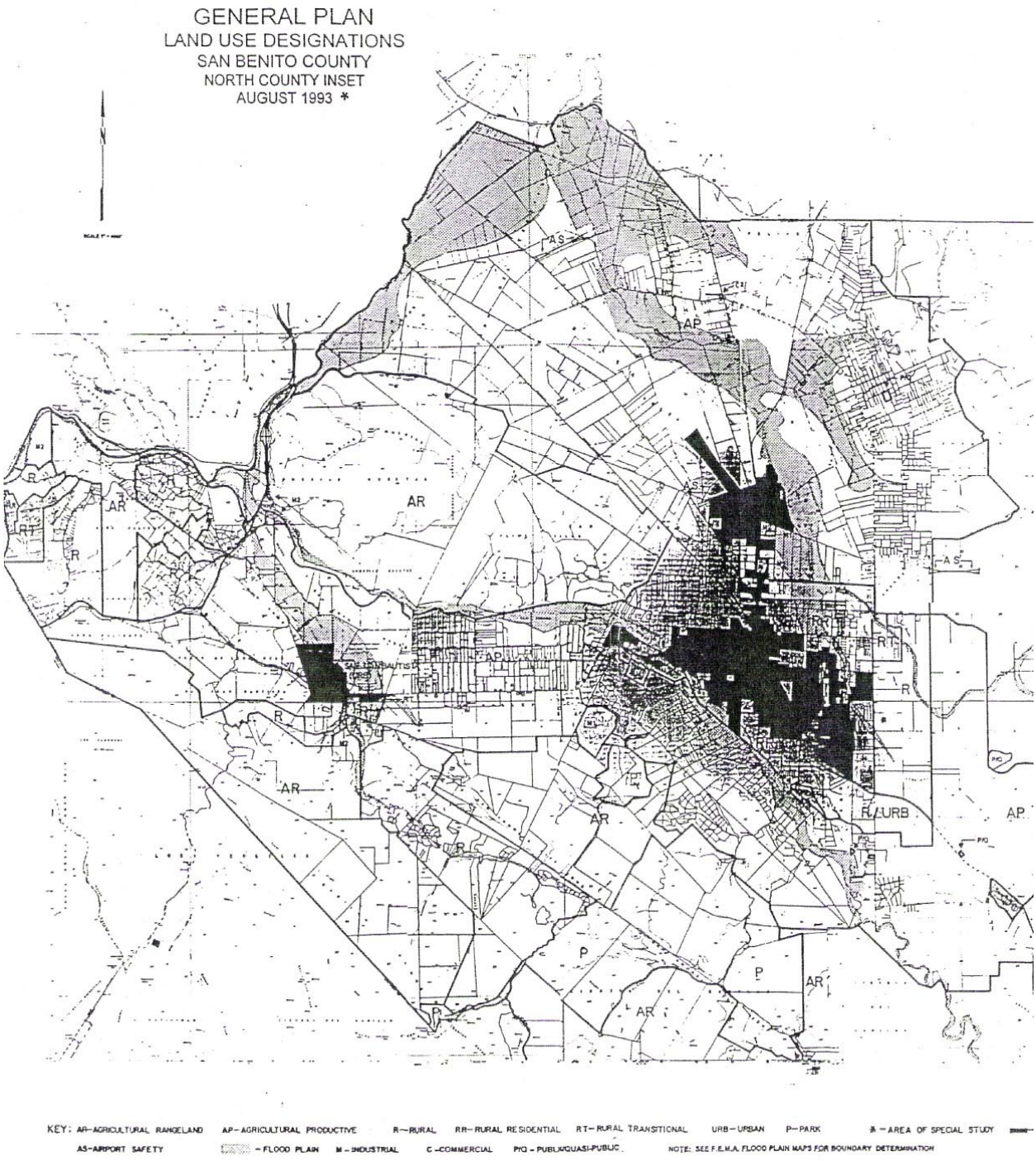


Figure A-2: Northern San Benito County Land Use Map

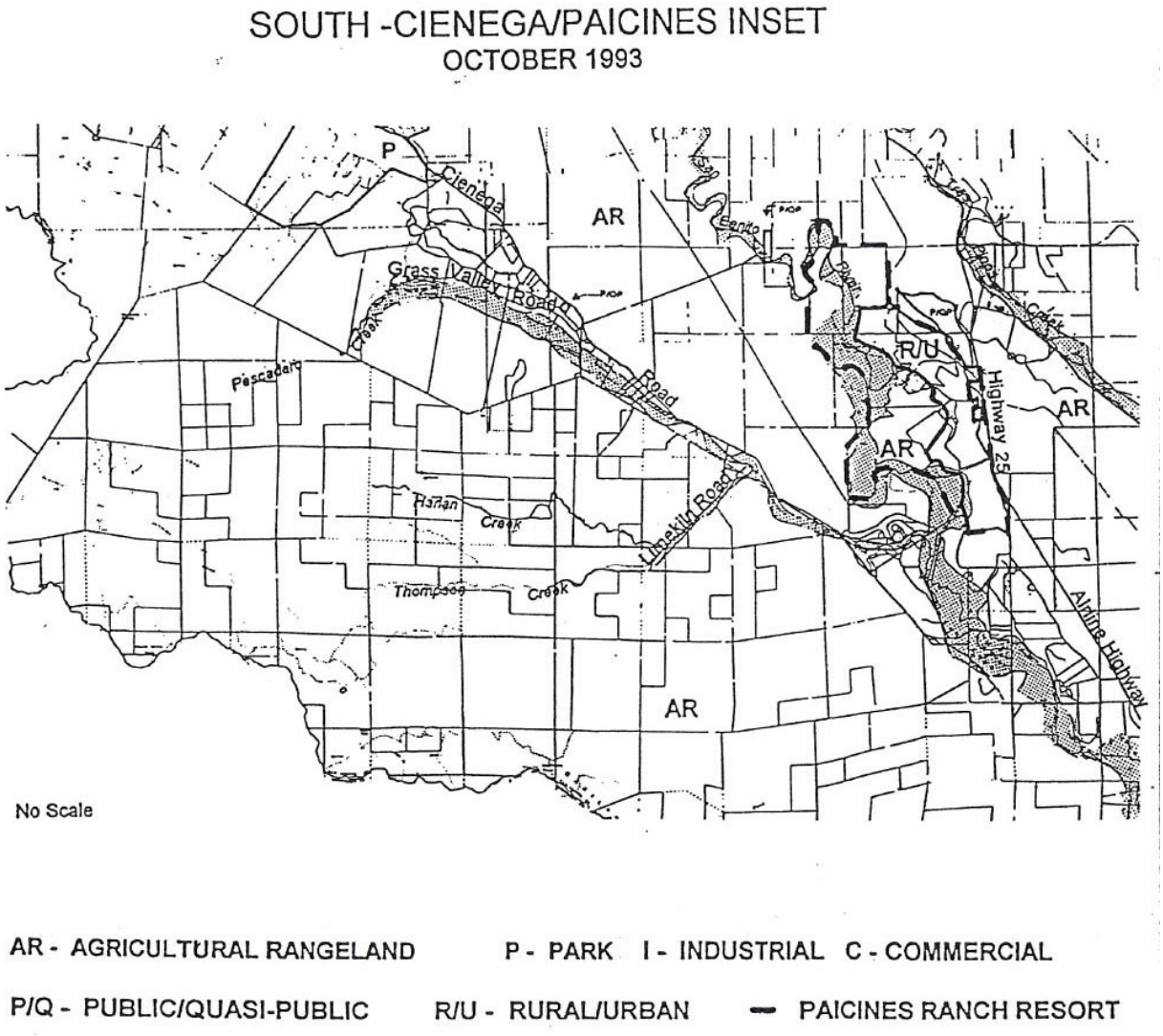


Figure A-3: Southern San Benito County Land Use Map

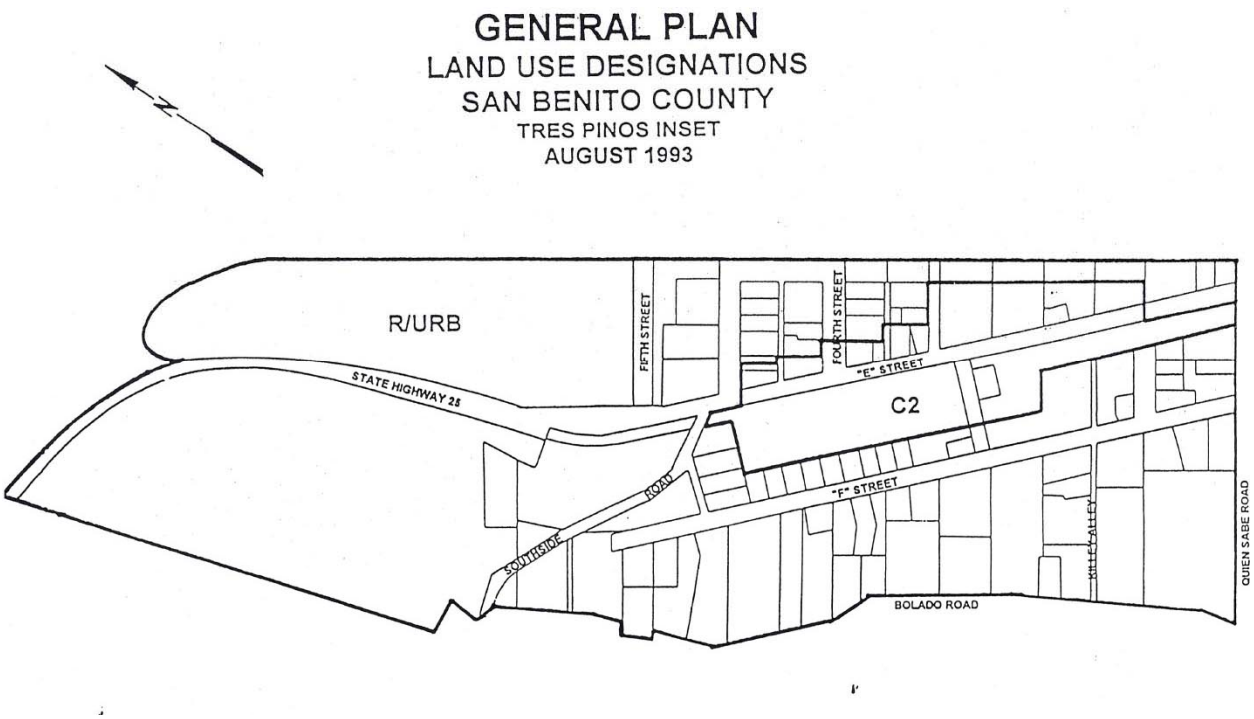


Figure A-4: Tres Pinos Land Use Map

Appendix B. Bicycle Design Guidelines

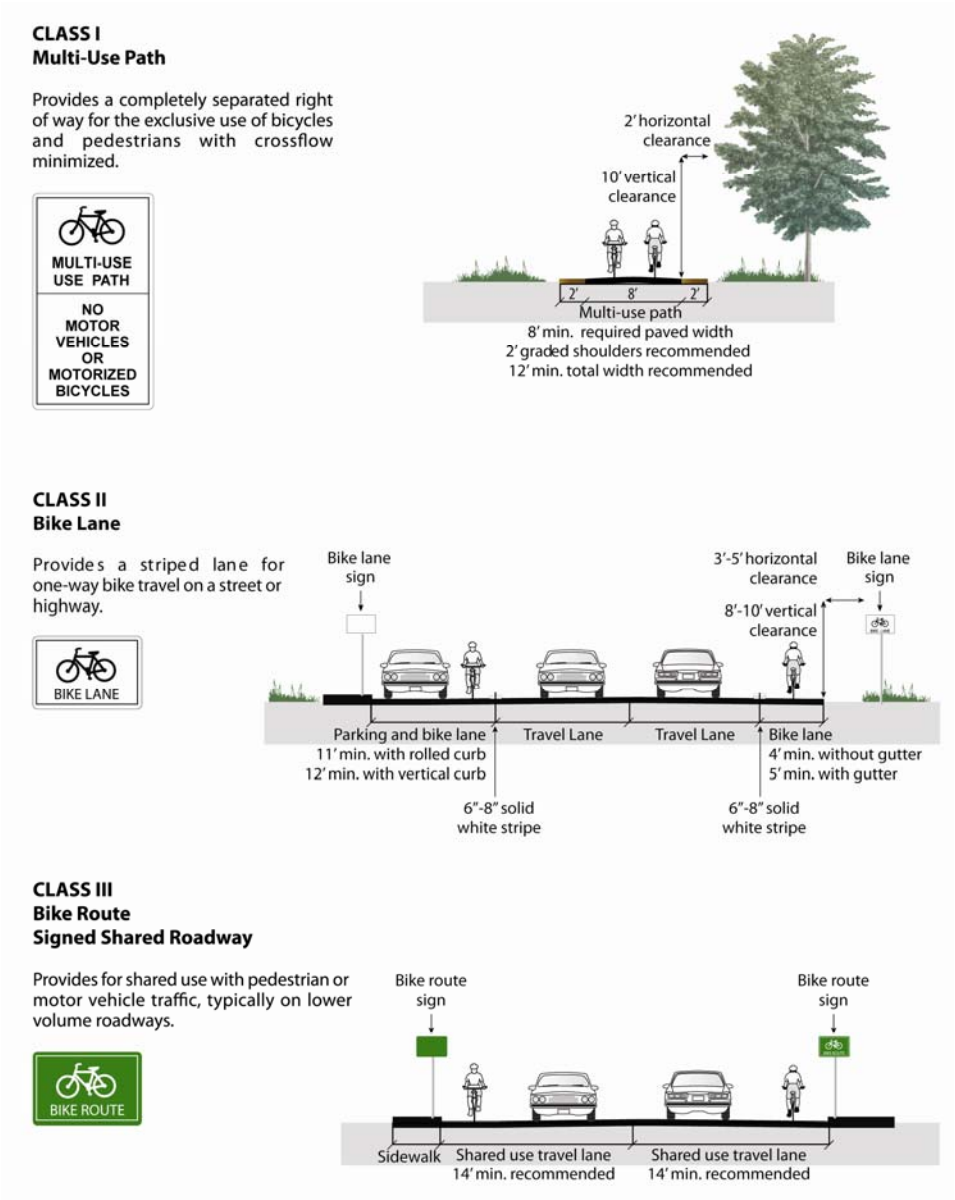
The design guidelines presented in this appendix are a combination of minimum standards outlined by the *California Highway Design Manual's* Chapter 1000, recommended standards prescribed by the American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* and the CA MUTCD. The minimum standards and guidelines presented by Chapter 1000 and AASHTO provide basic information about the design of bicycle network infrastructure, such as bicycle lane dimensions, striping requirements and recommended signage and pavement markings. Guidelines addressing more complicated bicycle facility design issues provide solutions for safely accommodating bicyclists through major arterial intersections, freeway interchanges, at transit stops and in other situations. The minimum standards for bicycle facilities used in combination with the design recommendations for specific San Benito bicycle facility issues should provide the foundation for a safe, functional and inviting bicycle network.

Caltrans Bikeway Classification Overview

Description

Caltrans has defined three types of bikeways in Chapter 1000 of the Highway Design Manual: Class I, Class II, and Class III. Signage and striping for bicycle facilities is outlined in the CA MUTCD. Minimum and recommended standards for each of these bikeway classifications are shown below.

Graphic

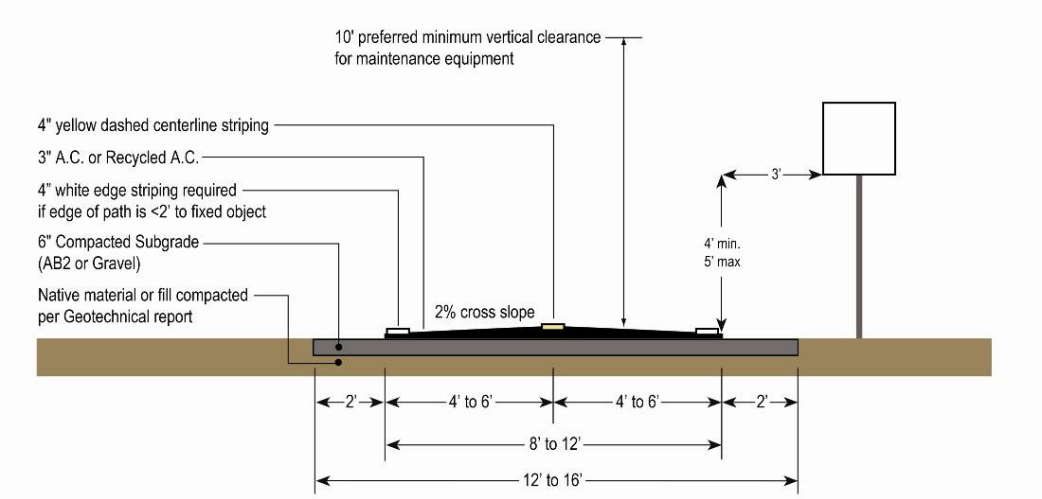


Class I Bike Path Minimum Standards

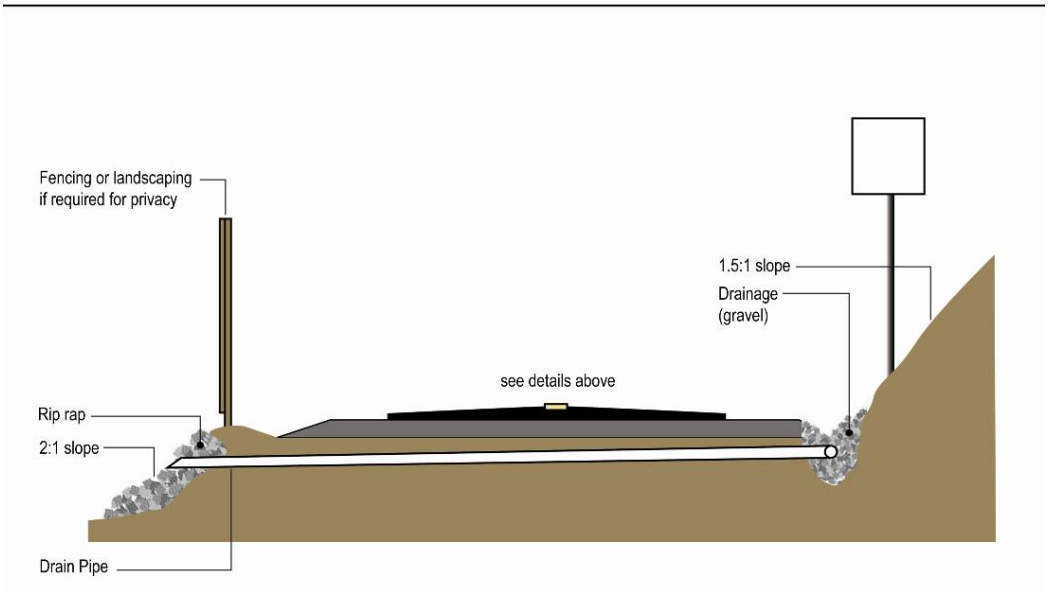
Description

In order to accommodate both bicyclists and pedestrians, Class I paths should be designed to the minimum standards shown below. In locations with high use, or on curves with limited sight distance, a yellow centerline should be used to separate travel in opposite directions. High use areas of the trail should also provide additional width up to 12 feet as recommended below. Lighting should be provided in locations where evening use is anticipated or where paths cross below structures.

Graphic



Implementation on Level Ground



Summary of Standards

- 8' (2.4 m) is the minimum width for Class I facilities
- 8' (2.4 m) may be used for short neighborhood connector paths (generally less than one mile in length) due to low anticipated volumes of use
- 10' (3.0 m) is the recommended minimum width for a typical two-way bicycle path
- 12' (3.6 m) is the preferred minimum width if more than 300 users per peak hour are anticipated, and/or if there is heavy mixed bicycle and pedestrian use
- A minimum 2' (0.6 m) wide graded area must be provided adjacent to the path to provide clearance from trees, poles, walls, guardrails, etc. On facilities with expected heavy use, a yellow centerline stripe is recommended to separate travel in opposite directions.
- Paths should be constructed with adequate sub grade compaction to minimize cracking and sinking, and should be designed to accommodate appropriate loadings, including emergency vehicles.
- A 2% cross slope shall be provided to ensure proper drainage.

Additional Considerations

Shared use trails and unpaved facilities that serve primarily a recreation rather than a transportation function and will not be funded with federal transportation dollars may not be required to be designed to Caltrans standards. However, state and national guidelines have been created with user safety in mind and should be followed. Wherever any trail facility intersects with a street, roadway, or railway, standard traffic controls should always be used.

Class I bike path crossings of roadways require preliminary design review. Generally, bike paths that cross roadways with average daily trips (ADTs) over 20,000 vehicles will require signalization or grade separation.

Landscaping should generally be low water consuming native vegetation and should have the least amount of debris.

Lighting should be provided where commuters will use the bike path during hours of darkness.

Barriers at pathway entrances should be clearly marked with reflectors and be ADA accessible (minimum five feet clearance).

Bike path construction should take into account impacts of maintenance and emergency vehicles on shoulders and vertical and structural requirements. Paths should be constructed with adequate sub grade compaction to minimize cracking and sinking.

All structures should be designed to accommodate appropriate loadings. The width of structures should be the same as the approaching trail width, plus minimum two-foot wide clear areas.

Where feasible, provide two-foot wide unpaved shoulders for pedestrians/runners, or a separate tread way.

Direct pedestrians to the right side of pathway with signing and/or stenciling.

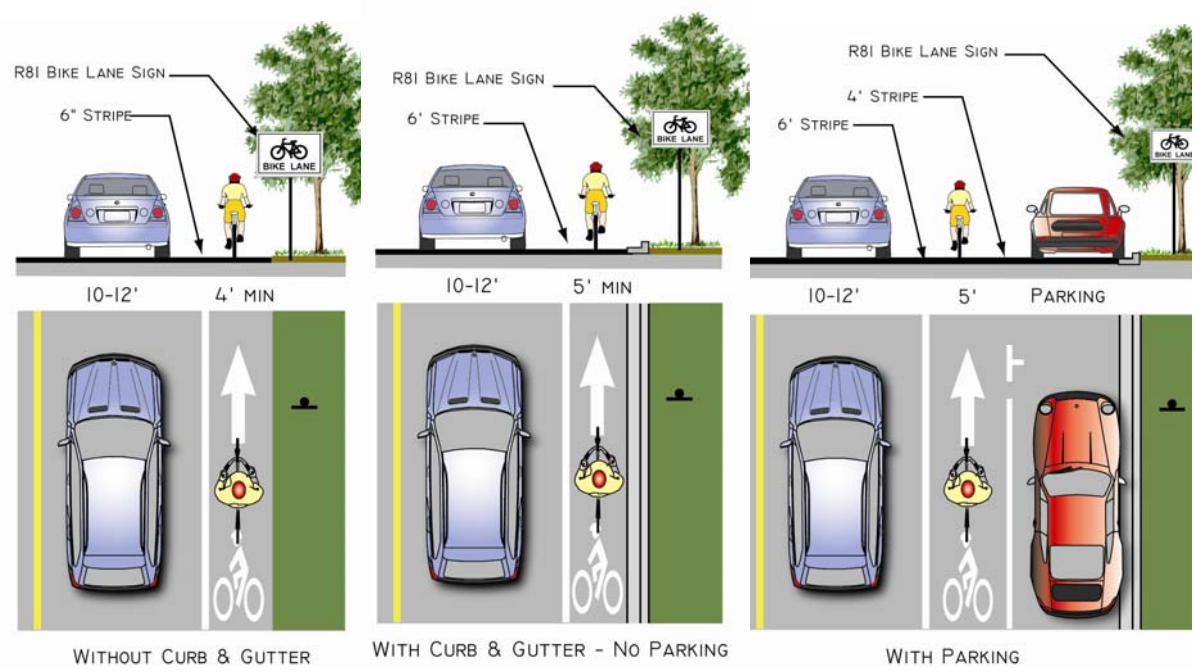
Consider using bicycle signal heads at locations where sidepaths meet signalized intersections.

Class II Bike Lane Minimum Standards

Description

Chapter 1000 of the Caltrans Highway Design Manual provides standards for bicycle facilities planning and design. These standards outline minimum dimensions, proper pavement markings and other design treatments for bicycle facilities. Signage and striping for bicycle facilities is outlined in the CA MUTCD.

Graphic



Summary of Standards

- Bicycle lanes shall be one way facilities, running with the direction of traffic.
- Where on-street parking is allowed, bicycle lanes must be striped between the parking area and the travel lanes.
- Width of bicycle lane:
    1. Without an existing gutter, bicycle lanes must be a minimum of 4 feet wide.
    2. With an existing gutter, bicycle lanes must be a minimum of 5 feet wide.
    3. Where on-street parking stalls are marked and bicycle lanes are striped adjacent to on-street parking, bicycle lanes must be a minimum of 5 feet wide.
    4. Where on-street parking is allowed but stalls are not striped, bicycle lanes must be a minimum of 12 feet wide. Depending on the type and frequency of traffic, wider bicycle lanes may be recommended.
- Bicycle lane striping standards:
    1. Bicycle lanes shall be comprised of a 6 inch solid white stripe on the outside of the lane, and a 4 inch solid white stripe on the inside of the lane.
    2. Bicycle lanes must never be delineated with raised barriers.

3. The inside 4 inch stripe of the bicycle lane should be dropped 200 feet prior to any intersection where right turns are permitted, and the outside 6 inch stripe should be dashed in this location. Bicycle lanes are generally not marked through intersections.
4. Bicycle lanes shall never be striped to the right of a right-hand turn lane

- Bicycle lane signage standards:
  1. The R81 (CA) bicycle lane sign shall be placed at the beginning of all bicycle lanes, on the far side of arterial street intersections, at all changes in direction and at a maximum of .6 mile intervals.
  2. Standard signage is shown in Chapter 9 of the 2006 California MUTCD.

Additional Considerations

Class II Bikeway - Additional Design Recommendations:

Intersection and interchange treatment – Caltrans provides recommended intersection treatments in Chapter 1000 including bike lane "pockets" and signal loop detectors. The County should develop a protocol for the application of these recommendations, so that improvements can be funded and made as part of regular improvement projects.

Bike lane pockets (min. 4' wide) between right turn lanes and through lanes should be provided wherever available width allows, and right turn volumes exceed 150 motor vehicles/hour.

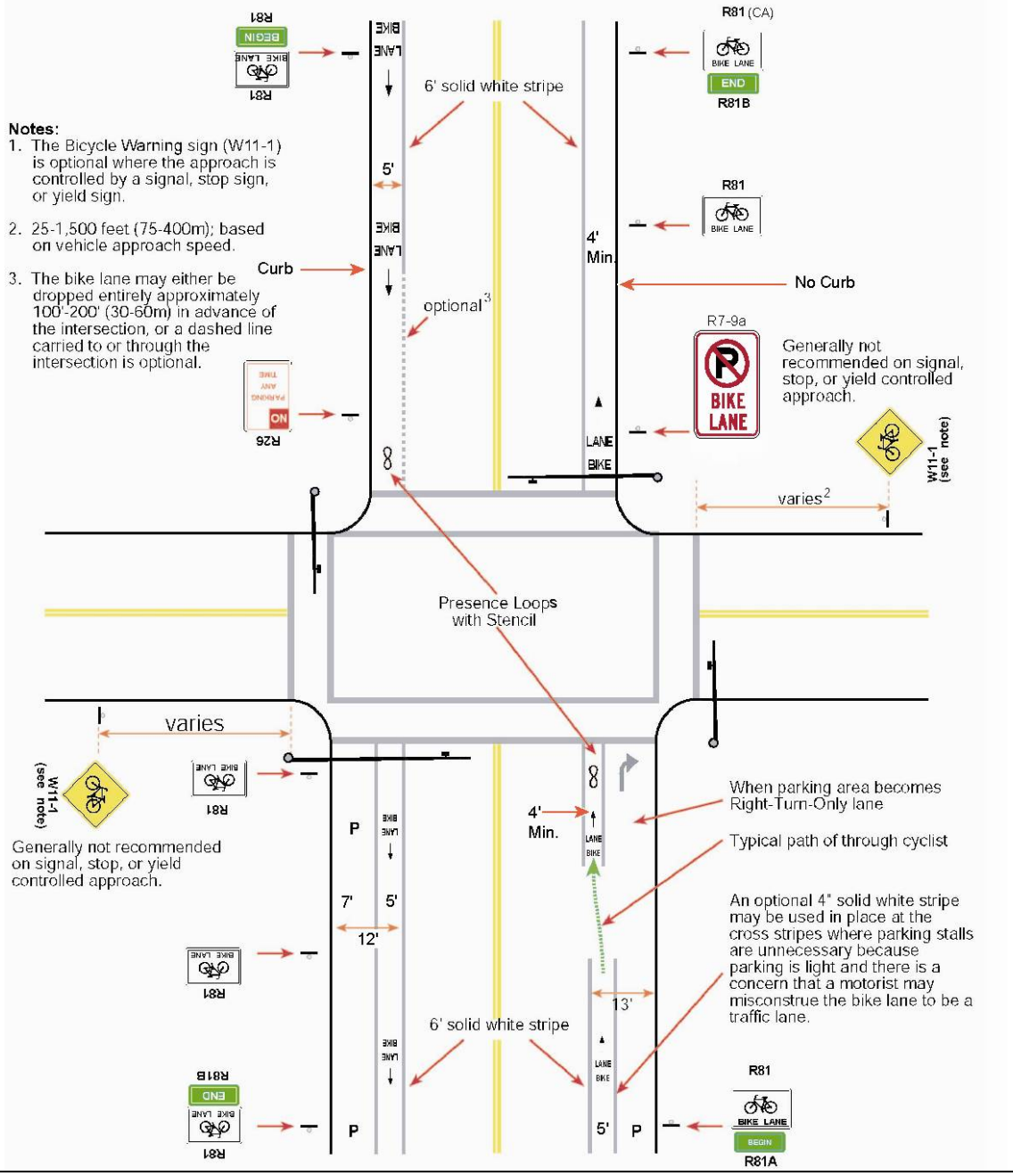
Word and symbol pavement stencils should be used to identify bicycle lanes, as per Caltrans and MUTCD specifications.

Typical Class II Bike Lane Signing at a Signalized Intersection

Description

This treatment provides a design for where a roadway with Class II bike lanes intersects with a road at a signalized intersection.

Graphic

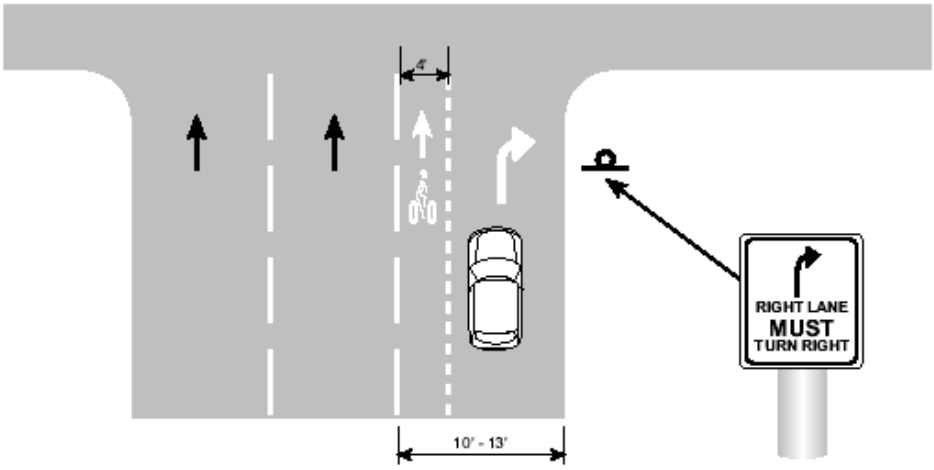


Shared Bicycle Right Turn Pocket

Description

This treatment places standard-width bicycle lane striping within left side of a dedicated right-hand turn lane when there isn't enough room for both to be placed side-by-side. A dashed stripe delineates the space for bicyclists and motorists within the right-hand turn lane. Signs should be installed to instruct bicyclists and motorists of the usage of this facility. This is an experimental treatment not specified in Chapter 1000 of the Caltrans Highway Design Manual.

Graphic



Potential Applications

- At intersections along bicycle network streets where there is not enough space to implement a standard-width bicycle lane and a standard-width dedicated right-turn lane.
- At intersections along bicycle network streets with low speeds, low volumes of truck traffic (or other vehicles requiring large turning radii), and dedicated right-turn lanes.

Guidelines

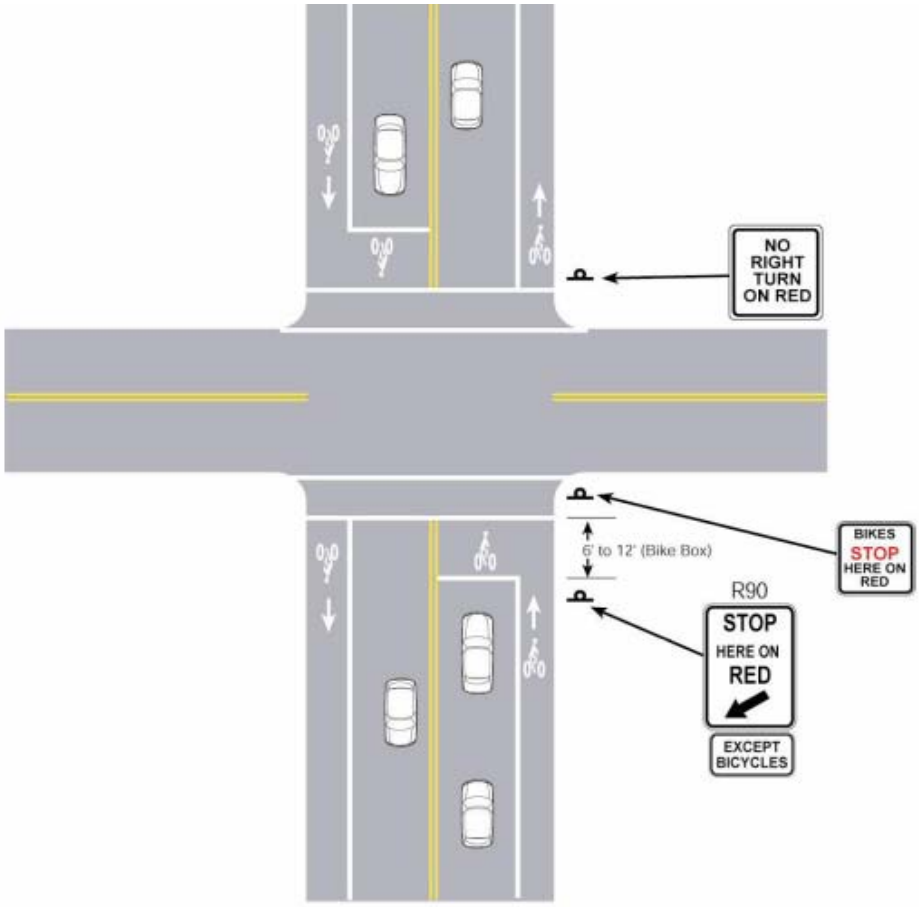
1. Dashed striping on the inside of the bicycle lane should be initiated 90-180 feet before the intersection, in accordance with the requirements of Chapter 1000.
2. Appropriate signage should be used to warn bicyclists and motorists of the shared lane treatment.

Bicycle Boxes

Description

This treatment includes a bicycle lane leading to a "box" situated behind the crosswalk and in front of the motor vehicle stop bar. The bike box allows bicyclists to move to the front of the queue and position themselves for turning movements. The treatment is also intended to improve the visibility of bicyclists. A bicycle marking is stenciled in the box and should be accompanied by signs communicating where bicycles and motor vehicles should stop.

Graphic



Guidelines

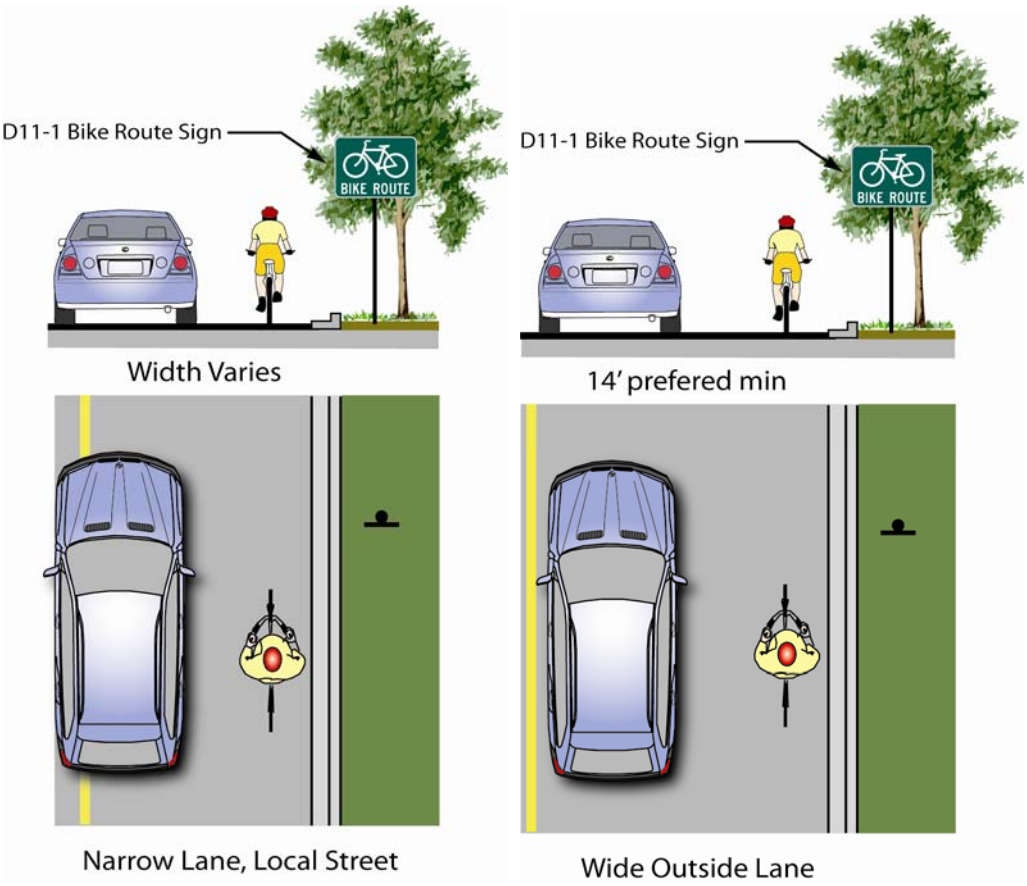
- At intersections with a high volume of bicycles and motor vehicles
- Where there are frequent turning conflicts and/or intersections with a high percentage of turning movements by both bicyclists and motorists
- No right turn on red
- In the US, bicycle boxes have been used in Cambridge, MA, Portland, OR and Eugene, OR. They have been used in a variety of locations throughout Europe.

Typical Class III Bike Route Minimum Standards

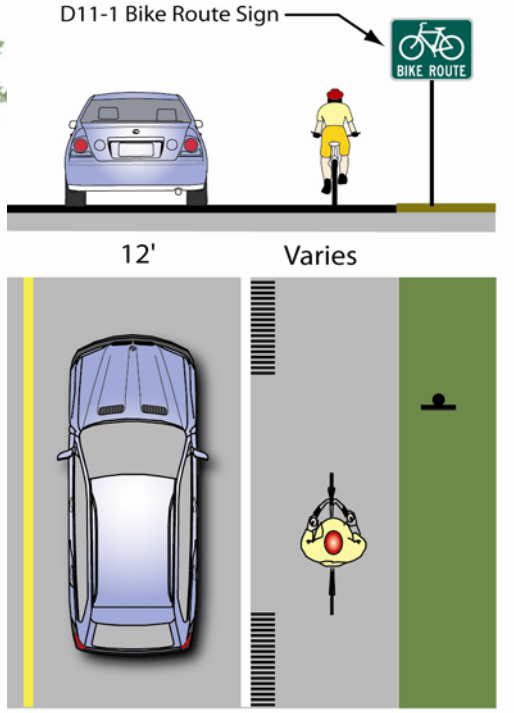
Description

Chapter 1000 of the Caltrans Highway Design Manual provides standards for bicycle facilities planning and design. These standards outline minimum dimensions, proper pavement markings, signage and other design treatments for bicycle facilities. Signage and striping for bicycle facilities is outlined in the CA MUTCD.

Graphic



With Shoulder Stripe



Highway Bike Route with Wide Shoulder and Bike Friendly Rumble Strip

Summary of Standards

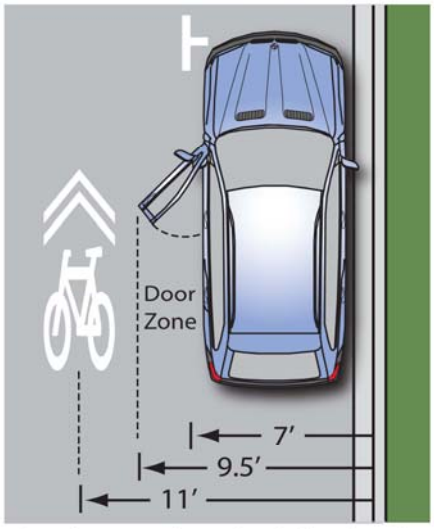
- Class III bikeway provides routes through areas not served by Class I or II facilities or to connect discontinuous segments of a bikeway.
- Class III facilities can be shared with either motorists on roadways or pedestrians on a sidewalk (not advisable).
- Width of roadway:
    1. Minimum widths are not presented
    2. When encouraging bicyclists to travel along selected routes, traffic speed and volume, parking, traffic control devices, and surface quality should be acceptable for bicycle travel
    3. Although it is not a requirement, a wide outside traffic lane (14') is typically preferable to enable cars to safely pass bicyclists without crossing the centerline.
- Bicycle route signage standards:
    1. The D11-1 (CA) bicycle route sign shall be placed along the roadways.
    2. Standard signage is shown in Chapter 9 of the 2006 California MUTCD.

Shared Lane Marking

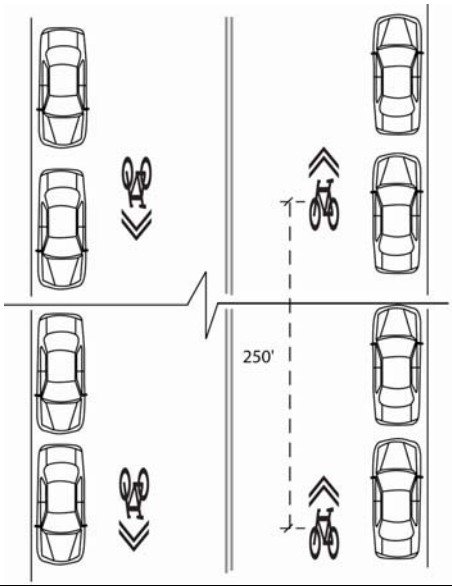
Description

The primary purpose of this shared use arrow is to provide positional guidance to bicyclists on roadways that are too narrow to be striped with bicycle lanes. Markings may be placed on the street to inform motorists about the presence of cyclists, and also to inform cyclists how to position themselves with respect to parked cars and the travel lane. The Shared Lane Marking has been approved by Caltrans for use in California jurisdictions.

Graphic



Shared Lane Marking should be placed 11 feet minimum from curb.



Potential Applications

- Bicycle network streets that are too narrow for standard striped bicycle lanes.
- Areas that experience a high level of "wrong-way" riding
- Bicycle network streets that have moderate to high parking turnover.

Guidelines

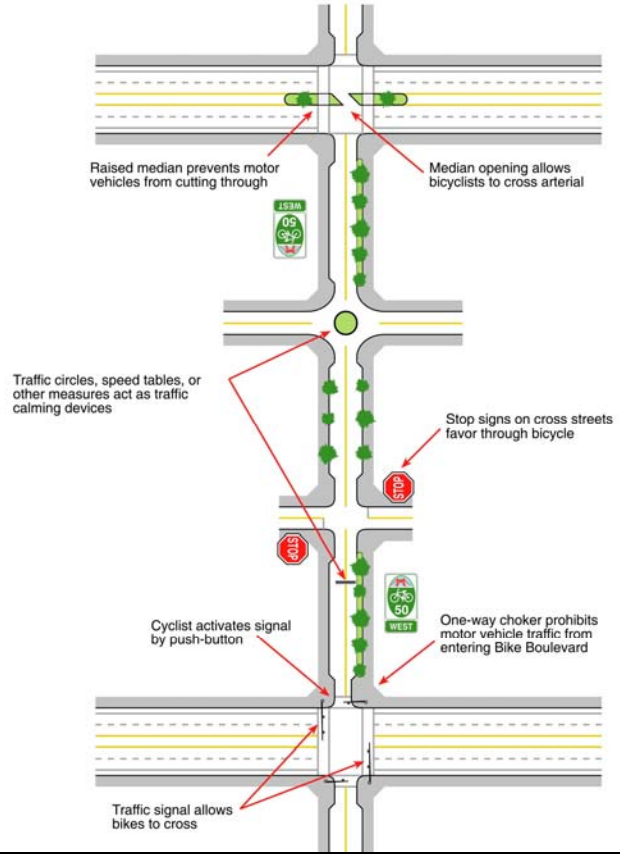
1. Shared lane arrow markings should be installed in conjunction with “share the road” signs
2. Arrows should be spaced approximately 250’ center to center, with the first arrow on each block or roadway segment placed no further than 100’ from the nearest intersection.

Bicycle Boulevard

Description

A bicycle boulevard treatment is typically a lower volume street with traffic calming treatments that parallels a higher volume arterial. Traffic calming typically includes a set of improvements to slow traffic and prevent cut-through traffic such as: traffic circles, chokers, and medians. In addition, stop signs favor bicyclists by stopping perpendicular traffic. Sensor loops activate traffic signals to allow safe crossings of higher volume roadways.

Graphic



Guidelines

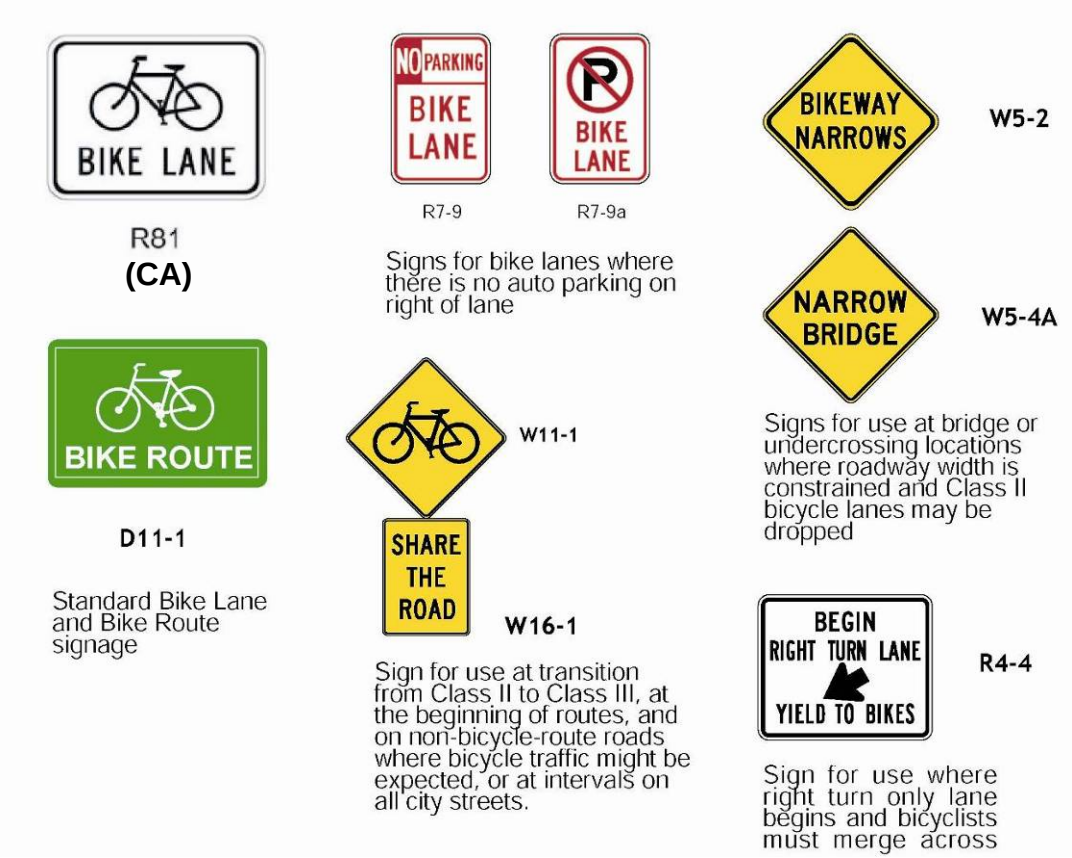
- Typically used on low volume streets
- Traffic-calmed streets located within 1/4 mile of parallel arterials
- Allows access to key destinations
- Provides safe arterial street crossing for cyclists
- Possible Speed Limit reduction from 25 MPH to 20 MPH
- For more information, see the City of Berkeley Bicycle Boulevard Design Tools and Guidelines at http://www.ci.berkeley.ca.us/transportation/Bicycling/BB/Guidelines/linkpag.htm

On-Street Bikeway Regulatory & Warning Signage

Description

Signage for on-street bikeways includes standard BIKE LANE and BIKE ROUTE signage, as well as supplemental signage such as SHARE THE ROAD and warning signage for constrained bike lane conditions.

Graphic



Figures are from Chapter 9 of the 2006 MUTCD, California Supplement.

Potential Applications

Various situations, specific to each site.

- The City should install SHARE THE ROAD signs along all Class III Bike Routes in addition to standard BIKE ROUTE signage.
- SHARE THE ROAD signs may be installed at one-half mile intervals along the designated route.

Guidelines

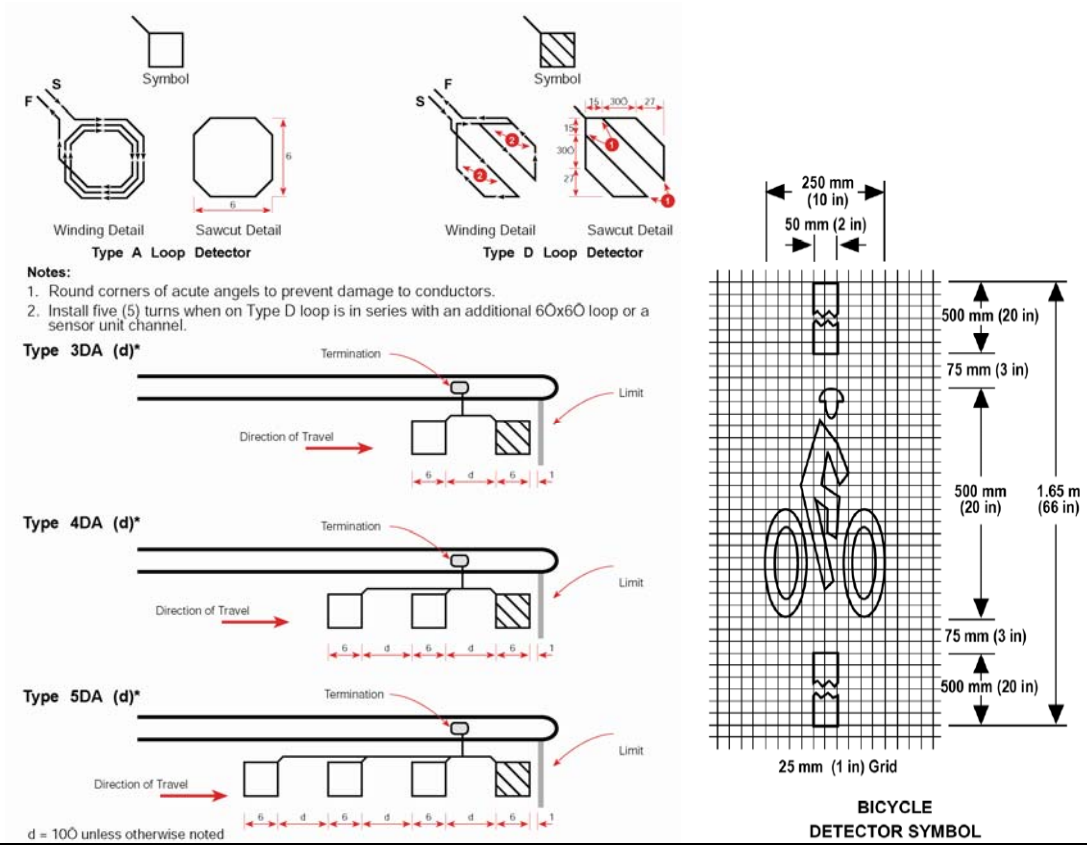
1. Signage should be installed on existing signposts if possible, reducing visual clutter along the path or roadway.

Bicycle Loop Detectors

Description

Bicycle loop detectors activate traffic signals at intersections, similar to standard loop detectors used for auto traffic. Where bicycle loop detectors are not present, bicyclists are forced to wait for a motor vehicle to trigger a signal; where motor vehicle traffic is infrequent, they may cross against a red signal. Bicycle loop detectors should be identified with pavement markings that show cyclists where to position themselves to trigger the traffic signal.

Graphic



Potential Applications

- At signalized intersections along bicycle network streets.

Guidelines

1. Pavement markings should identify proper cyclist position above the loop detector.
2. Loop detectors should provide adequate time for cyclists to cross the intersection, keeping in mind the slower travel speed (10-15 mph) of bicyclists.

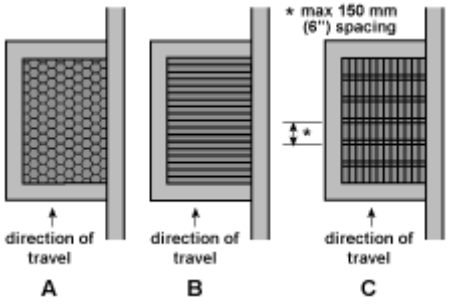
Drainage Grates and Utility Covers

Description

Improper drainage grates, slot drains, and utility covers can catch bicycle tires and cause bicyclists to lose control. Because of this, cyclists may veer into traffic lanes to avoid them. Properly designed slot drains, grates and utility covers allow cyclists to maintain their direction of travel without catching tires or being forced into travel lanes.

Graphic

Examples of bicycle unfriendly slot drain



Examples of bicycle friendly drainage grates.

Potential Applications

- Wherever slot drains, drainage grates or utility covers are located along bicycle network streets.
- Construction or street maintenance zones along bicycle network streets.

Guidelines

1. Grates must feature crossbars or a grid which prevents bicycle tires from catching or slipping through, as shown above.
2. Metal covers used in construction zones must have a non-slip coating.
3. The transition between the pavement and drainage grates or utility covers should be smooth.
4. Slot drains should be covered or oriented so they are perpendicular to all bicycle traffic.

Bicycle Parking

Description

Secure bicycle parking is an essential element of a functional bicycle network. Bicycle racks are a common form of short-term secure bicycle parking and can be installed in various locations, including sites adjacent to retail such as parking lots, as well as in the public right of way in the furnishings zone of the sidewalk. Racks are appropriate for locations where there is demand for short-term bicycle storage. Bicycle lockers provide secure and sheltered bicycle parking and are recommended in locations where long-term bicycle storage is needed, such as transit stations.

Graphic

Bicycle Racks

Potential Applications

- Throughout San Benito, with priority given to significant destinations such as parks, schools, shopping centers, transit hubs and job centers.

Guidelines

1. Bicycle parking should be a design that is intuitive and easy to use.
2. Bicycle parking should be securely anchored to a surface or structure.
3. Bicycle parking spaces should be at least six feet long and two-and-a-half feet wide. Overhead clearance should be at least seven feet.
4. The rack element (part of the rack that supports the bicycle) should keep the bicycle upright by supporting the frame in two places without the bicycle frame touching the rack. The rack should allow one or both wheels to be secured.
5. A standard inverted-U style rack (shown above) is a simple and functional design that takes up minimal space on the sidewalk and is easily understood buy users. Avoid use of multiple-capacity "wave" style racks. Users commonly misunderstand how to correctly park at wave racks, placing their bikes parallel to the rack and limiting capacity to 1 or 2 bikes.
6. Position racks so there is enough room between parked bicycles. If it becomes too difficult for a bicyclist to easily lock their bicycle, they may park it elsewhere. Racks should be situated on 36" minimum centers.
7. A five-foot aisle for bicycle maneuvering should be provided and maintained beside or between each row of bicycle parking

8. Empty racks should not pose a tripping hazard for visually impaired pedestrians. Position racks out of the walkway's clear zone.
9. Racks should be located close to a main building entrance, in a lighted, high-visibility, covered area protected from the elements. Long-term parking should always be protected.

Additional Considerations

All bicycle parking should be in a safe, secure area visible to passersby. Commuter locations should provide secure indoor parking, covered bicycle corrals, or bicycle lockers. Short term bicycle parking facilities, such as bicycle racks, are best used to accommodate visitors, customers, messengers and others expected to depart within two hours. They are usually located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers. Bicycle parking on sidewalks in commercial areas should be provided according to specific design criteria, reviewed by merchants and the public, and installed as demand warrants. **The table below** provides recommended guidelines for bicycle parking locations and quantities.

Land Use or Location	Physical Location	Bicycle Capacity
City Park	Adjacent to restrooms, picnic areas, fields, and other attractions	8 bicycles per acre
City Schools	Near office entrance with good visibility	8 bicycles per 40 students
Public Facilities (city hall, libraries, community centers)	Near main entrance with good visibility	8 bicycles per location
Commercial, retail and industrial developments over 10,000 gross square feet	Near main entrance with good visibility	1 bicycle per 15 employees or 8 bicycles per 10,000 gross square feet
Shopping Centers over 10,000 gross square feet	Near main entrance with good visibility	8 bicycles per 10,000 gross square feet
Commercial Districts	Near main entrance with good visibility; not to obstruct auto or pedestrian movement	2 bicycles every 200 feet
Transit Stations	Near platform or security guard	1 bicycle per 30 parking spaces

Appendix C. Pedestrian Design Guidelines

The pedestrian design guidelines provide design requirements for compliance with the Americans with Disabilities Act (ADA), as well as design recommendations intended to create inviting, walkable environments for pedestrians. In addition to recommendations for better pedestrian design, implementation of the ADA design requirements outlined in this chapter will provide a foundation of accessible pedestrian facilities which will make better pedestrian environments for not only the disabled, but everyone who walks.

State and Federal Guidelines

The design of many streetscape elements is regulated by state and federal law. Traffic control devices must follow the procedures set forth in the California Manual of Uniform Traffic Control Devices (CA MUTCD), while elements such as sidewalks and curb cuts must comply with guidelines implementing the ADA.

MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

San Benito COG jurisdictions follow the procedures and policies set out in the CA MUTCD. Traffic control devices include traffic signals, traffic signs, and street markings. The manual covers the placement, construction, and maintenance of devices. The CA MUTCD emphasizes uniformity of traffic control devices to protect the clarity of their message. A uniform device conforms to regulations for dimensions, color, wording, and graphics. Uniformity also means treating similar situations in the same way.

AMERICANS WITH DISABILITIES ACT

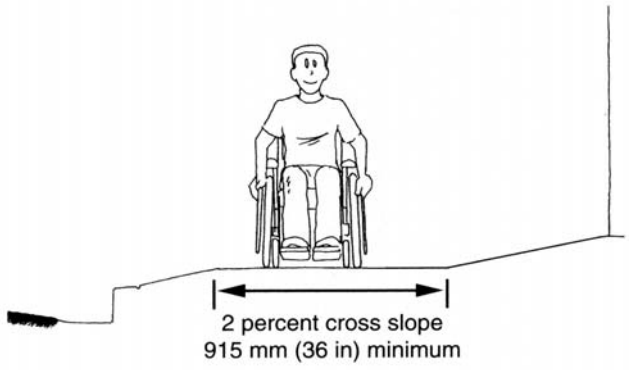
Title II of the Americans with Disabilities Act (ADA), signed into law in 1990, is a civil rights act that prohibits public entities from discrimination on the basis of disability. Newly constructed facilities must be free of architectural barriers that restrict access or use by individuals with disabilities. Cities in California uses two technical standards for accessible design: the Americans with Disability Act Accessibility Guidelines (ADAAG), adopted by the Department of Justice for places of public accommodation and commercial facilities covered by Title 3 of the ADA, and the California Title 24 State Accessibility Standards, State Architectural Regulations for Accommodation of the Physically Handicapped in Public Facilities.

ADA Sidewalks and Trail – Grade and Cross Slope

Description

Making sidewalks and trails ADA compliant involves ensuring that the grade and the cross slope of the sidewalk or trail is safe for disabled users. Gentle grades are preferred to steep grades due issues of control, stability and endurance. The cross slope is significant for issues of control, not only for wheelchair users, but for those with difficulty walking as well.

Graphic



Potential Applications

- All sidewalks, especially those on uneven or steep terrain.

Guidelines

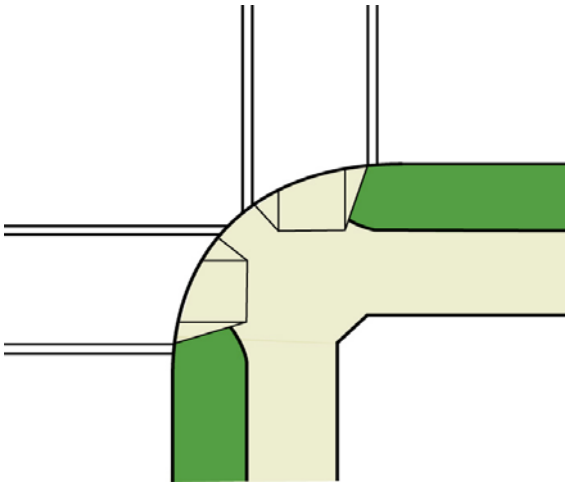
1. Cross slope should not exceed 2 percent.
2. Longer, steeper grades should have landings every 400 feet where people can rest.

ADA Curb Ramp Design and Location

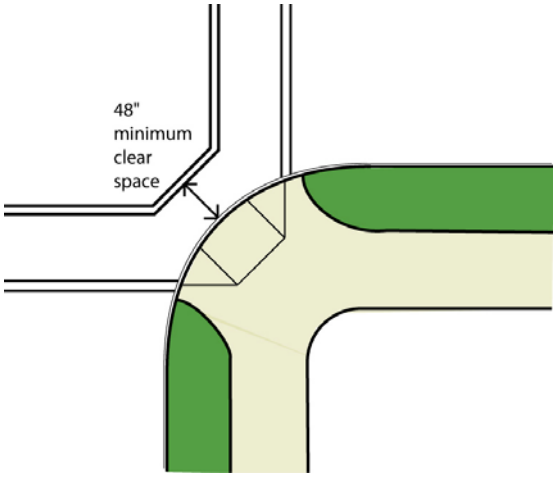
Description

Curb ramps are necessary for people who use wheelchairs to access sidewalks and crosswalks. ADA requires the installation of curb ramps in new sidewalks, as well as retrofitting existing sidewalks. Curb ramps may be placed at each end of the crosswalk (perpendicular curb ramps), or between crosswalks (diagonal curb ramps). The ramp may be formed by drawing the sidewalk down to meet the street level, or alternately building up a ramp to meet the sidewalk.

Graphic



Perpendicular curb ramps



Diagonal curb ramp

Potential Applications

- All intersections.
- Midblock crossings.
- Multi-use path and roadway intersections.

Guidelines

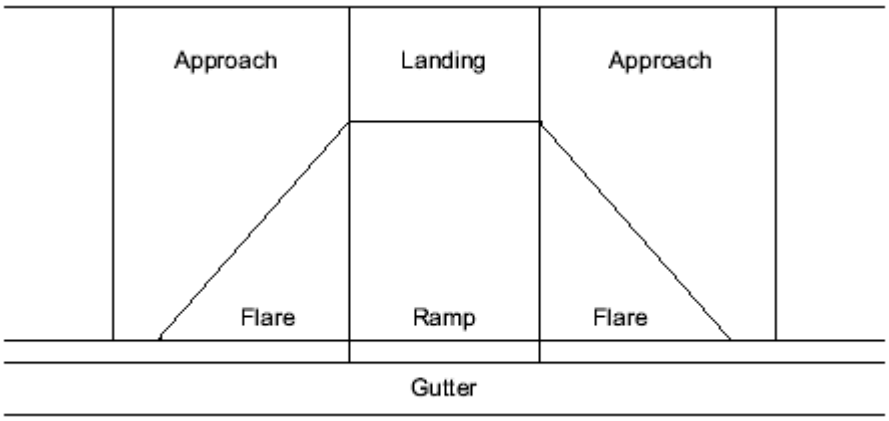
1. Perpendicular curb ramps should be used at large intersections. Curb ramps should be aligned with crosswalks, unless they are installed in a retrofitting effort and are located in an area with low vehicular traffic.
2. The minimum width of a curb ramp should be 36 inches, in accordance with ADAAG Guidelines.

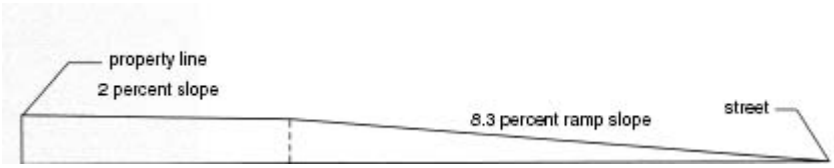
ADA Curb Ramp Components and Slope

Description

The main components of curb ramps are the landing, approach, flare, ramp and gutter, and are necessary to provide a gentle transition between the curb and sidewalk. Various ramp designs may be used to regulate the slope of the ramp.

Graphic





NOTE: Use Caltrans Standards

Potential Applications

- All intersections.
- Midblock crossings.
- Multi-use trail and roadway intersections.

Guidelines

1. Curb ramps should be designed to accommodate the level of use anticipated at specific locations, e.g. sufficient width for the expected level of peak hour pedestrian volumes and other potential users.
2. Adequate drainage should be provided to prevent flooding of curb ramps.
3. Tactile strips must be used to assist sight-impaired pedestrians in locating the curb ramp.

Sidewalk Design

Description

Sidewalks are comprised of four zones: curb, furnishings, through pedestrian, and frontage. The curb zone abuts the street and provides a buffer between the sidewalk and the street. The furnishings zone lies between the through zone and the curb zone and provides a location for street furniture and other public amenities such as trash receptacles, bicycle racks, lighting, news racks, and water fountains. The through pedestrian zone is the sidewalk space for walking and is located between the furnishings zone and the frontage zone. The through pedestrian zone is the widest zone and should be clear of obstructions at all times. Finally, the frontage zone provides a transition between the building or property line and the through zone. The frontage zone may feature furniture and act as an outdoor extension of restaurants or cafés.

Potential Applications

- All sidewalk locations.

Guidelines

1. Sidewalks should be located on both sides of the street.
2. Sidewalks should be constructed of durable, slip-resistant materials, like Portland cement.
3. Sidewalk zones should be clearly delineated—furniture should not be placed in the curb zone, etc.
4. The through pedestrian zone should be kept clear of obstructions at all times.
5. While the width of the curb, furnishings and frontage zones may be adjusted to reflect the needs of the site, the through zone should always occupy the majority share of the sidewalk space, and should be at least 5’ wide in all locations.
6. Meandering sidewalks should be avoided, as straight sidewalk segments provide pedestrians with the most direct route possible between destinations.
7. General maintenance should be conducted regularly to repair cracks and gaps and remove debris, which can present safety hazards to pedestrians.

Sidewalk and Pathway Materials

Description

Sidewalks are generally constructed of Portland cement concrete. Sidewalk surfaces should be firm, stable and slip-resistant when dry. Some sidewalks are designed using decorative materials, such as brick or cobblestone. Although these surfaces may improve the aesthetic quality of the sidewalk, they may make mobility difficult for wheelchair users and create vibration. Brick and cobblestone also have a tendency to buckle, creating a tripping hazard and requiring increased maintenance. For these reasons, brick and cobblestone sidewalks are not recommended. Creative alternatives to brick sidewalks include concrete sidewalks with brick trim, which preserves the decorative quality of brick but is an easier surface to negotiate; or colored asphalt or concrete stamped to look like brick.

Graphic

Sidewalk with brick trim

Potential Applications

- All sidewalk corridors.

Guidelines

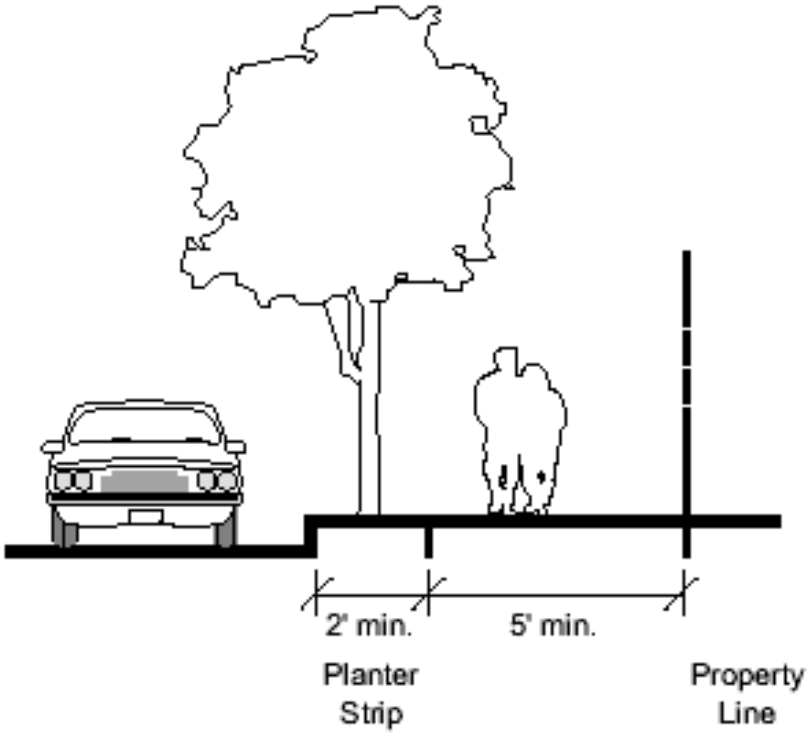
1. See Sidewalk Design above for additional sidewalk design details.

Sidewalk Zones – Residential

Description

Residential sidewalks are generally narrower than commercial zone sidewalks, and priority should be given to the through pedestrian zone's width in residential sidewalk design. Residential sidewalks do include the other sidewalk zones, such as for placement of utility boxes in the furnishings zone, yet these zones are less prominent than in commercial areas where furnishings and frontage zones may feature ample seating and amenities like newsstands.

Graphic



Potential Applications

- Residential areas

Guidelines

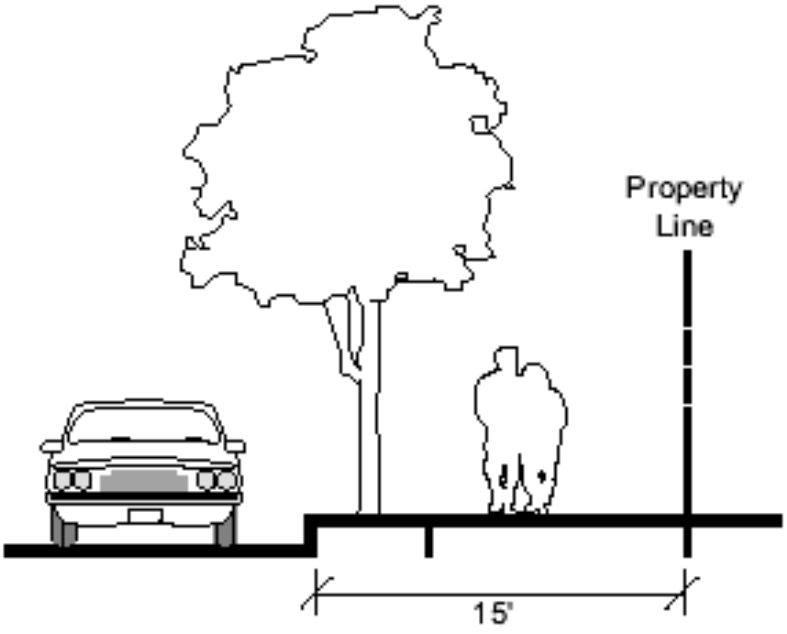
1. See also guidelines Sidewalk Design - Sidewalk Zones.
2. 2' minimum planter strip is recommended on all collector and arterial roadways to provide a buffer to pedestrians.

Sidewalk Zones – High Density

Description

Medium to high-density pedestrian zones located in areas with commercial or retail activity like Downtown Hollister provide excellent opportunities to develop an inviting pedestrian environment. The frontage zone in retail and commercial areas may feature seating for cafés and restaurants. The furnishings zone may feature seating, as well as newspaper racks, water fountains, utility boxes, lampposts, street trees and other landscaping. The medium to high-density pedestrian zone should provide an interesting and inviting environment for walking as well as window shopping.

Graphic



Potential Applications

- Sidewalks in commercial zones should have an entire width of approximately 15 feet.

Guidelines

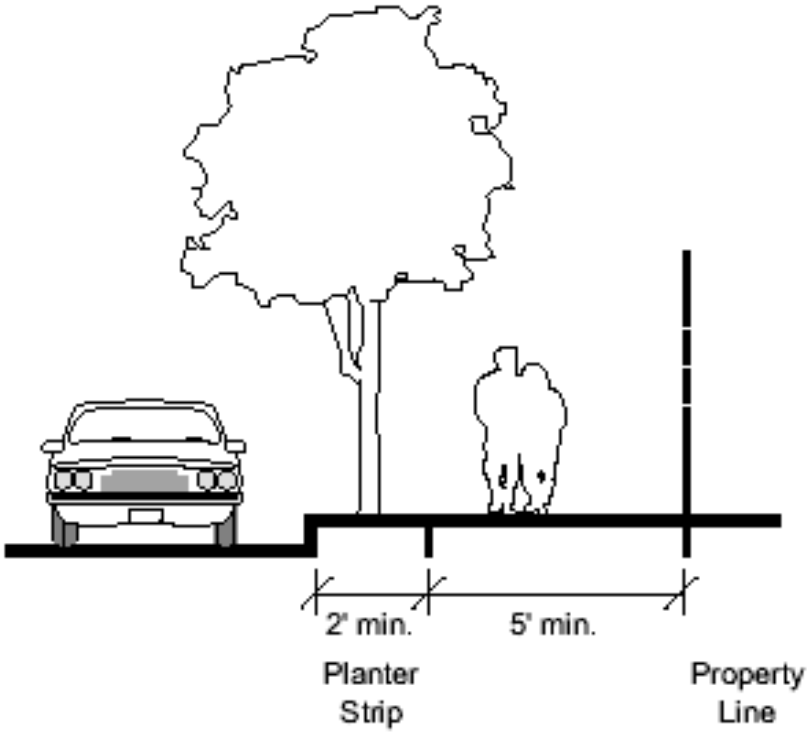
1. See guidelines for Sidewalk Design – Sidewalk Zones.

Sidewalk Zones – Industrial Zones

Description

Sidewalks through industrial zones are essential components of the pedestrian network. Industrial zones and arterial roadways often experience heavy truck traffic which is both unpleasant and potentially dangerous for pedestrians. Providing a broad furnishings zone will help separate pedestrians from heavy vehicle traffic. A limited frontage zone is appropriate for industrial zones and arterial roadways because there is a reduced need for seating or street-side vending in these locations.

Graphic



Potential Applications

- Industrial areas or zones.
- Along arterial roadways or other routes with heavy truck traffic.

Guidelines

1. The furnishings zone, in combination with the curb zone, should provide a minimum 2 foot buffer between the pedestrian through zone and heavy traffic on industrial or arterial roadways.
2. See also Sidewalk Design – Sidewalk Zones.

Sidewalk Design – Furniture

Description

Street furniture is an integral part of good pedestrian design and walkable neighborhoods. The design and placement of street furniture should take into consideration the security, comfort and convenience of the user. Street furnishings should always be accessible to the disabled, and should be sited in a manner that preserves the width of the through zone.

Graphic

Potential Applications

- All sidewalks with a ten foot minimum width necessary to accommodate a furnishings zone.
- Sidewalks with significant pedestrian volumes.

Guidelines

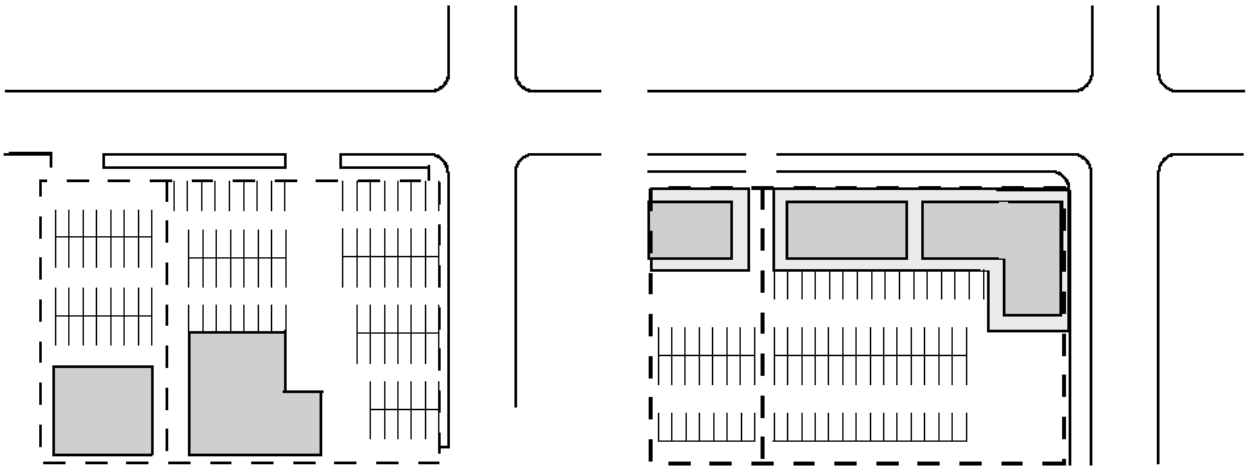
1. Sidewalk amenities should be located within the Furnishings or Frontage Zones as described in Sidewalk Design – Sidewalk Zones.
2. Seating should be provided adjacent to major destination points, such as restaurants, where they are often necessary and where they will be used frequently.
3. Seating and other amenities should be made of durable, high-quality materials which visually reinforce community identity and the design of nearby buildings.
4. Sidewalk bulb-outs can be used to accommodate additional street furniture in high-use areas.
5. Street furnishing design and location should consider car overhangs and door movement when placed near the curb and be located at the ends of the on-street stalls rather than the center.
6. No sidewalk amenity should reduce the clear width of a sidewalk or walkway to less than 4 feet.
7. To aid the visually disabled, use colors that contrast with the sidewalks color and surroundings.
8. Design and location of streetscape amenities should comply with ADA requirements.

Sidewalk Design – Driveways and Curb Cuts

Description

Driveways in locations with significant pedestrian traffic become conflict zones for motorists and pedestrians. Motorists exiting and entering driveways often do not see pedestrians approaching from a perpendicular direction, as they are focused on locating gaps in traffic in order to proceed. In addition, lengthy driveways and curb cuts may present cross slope or grade challenges to disabled persons. ADA standards should be used in the construction and retrofitting of all driveways and curb cuts.

Graphic



Conventional parking and access configuration

Potential Applications

- All sidewalks with driveways and curb cuts.
- Pedestrian sidewalks adjacent shopping centers and other retail sites with multiple driveway entrances.
- Residential neighborhoods with variable development patterns leading to frequent driveways and curb cuts.

Guidelines

1. Curb cuts for two-way traffic should not be wider than 26 feet, with an exception for curb cuts that provide frequent access for semi-trucks.
2. In nonresidential pedestrian supportive areas, there should be no more than one curb cut per 200 linear feet of street frontage.

Crosswalk Placement

Description

One of the most effective means of turning an important corridor into a community "spine" or "seam," rather than a "divider," is providing for safe street crossings. Communities frequently elect to install crosswalks at limited locations, such as only on certain legs of an intersection, or infrequently across a multi-lane arterial in order to promote vehicular circulation. These decisions do not eliminate pedestrian use of these roadways and intersections, but rather make travel more difficult for existing pedestrians. Advances in pedestrian design in recent years have increased the visibility and effectiveness of pedestrian crossings in protecting pedestrian safety, making installation of pedestrian crosswalks appropriate in many locations where traffic engineers once considered them inappropriate. Roadway geometry, traffic volumes and speeds, and signal configuration and timing must be carefully considered as a part of all new crosswalk installations and retrofits. The diagram below shows general guidelines for crosswalk placement on multiple roadway types.

Potential Applications

- All intersections.

Guidelines

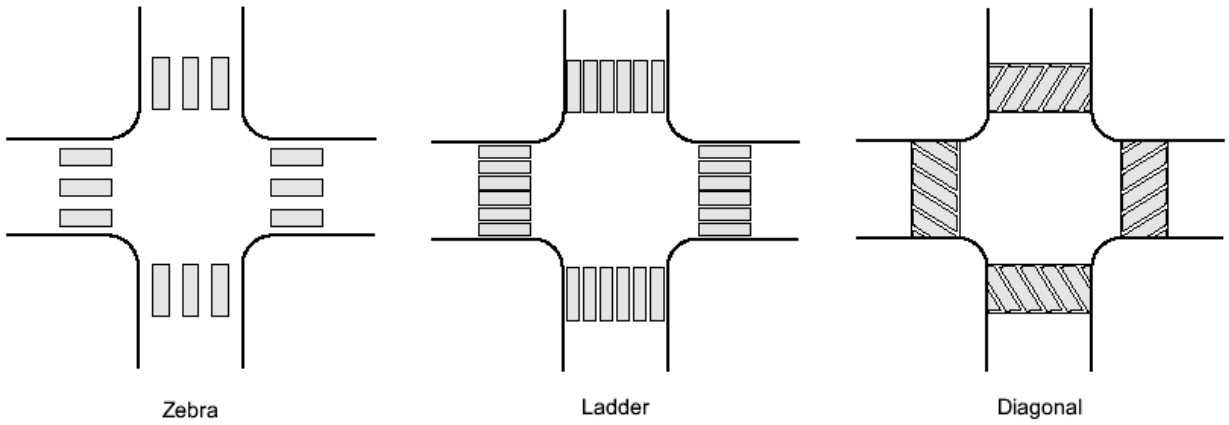
1. Guidelines for installation of marked crosswalks at uncontrolled intersections based on traffic volumes, pedestrian volumes, speed and number of lanes are addressed in the next section.
2. The width of crosswalks should be a minimum of 12 feet wide. Unless small-scale intersection conditions dictate otherwise widths should be increased where there is a greater amount of pedestrian activity.
3. Crosswalks should be adequately lit.
4. Marked crosswalks should be considered for uncontrolled crossing locations if there are no controlled crossings (by a traffic signal or stop sign) within 600 feet of the proposed crossing location (provided that the other guidelines presented here are met.)
5. Unless circumstances dictate otherwise, marked crosswalks should be provided at all signalized intersections where pedestrian crossing equipment is provided.
6. Marked crosswalks alone are insufficient (i.e.., without traffic-calming treatments, traffic signals, pedestrian signals (when warranted) or other substantial crossing improvements presented in these guidelines) and should not be used under the following conditions:
    - Where the speed limit exceeds 40 mph.
    - On a roadway with four or more lanes without a raised median or crossing island that has (or will soon have) an ADT of 12,000 vehicles per day or greater.
    - On a roadway with four or more lanes with a raised median or crossing island that has (or will soon have) an ADT of 15,000 vehicles per day or greater.
7. Special crosswalk markings should be used in order to increase the visibility of the crosswalk and on uncontrolled approaches to un-signalized intersections. These special markings are generally more appropriate on roads where the adjacent land use may divert drivers' attention.
8. Traffic signals should provide pedestrians, including seniors, the disabled, and children, with adequate time to cross the street or at least reach a pedestrian refuge in the middle of the street. An average walking speed which has been used historically is 4 feet/second to determine signal duration. However, a reduced speed such as 3.0 or 3.25 feet/second should be applied to compensate for the elderly and disabled.
9. Signal timing in #8, will have to be balanced with signal frequency. Ideally, pedestrian signals should be at a cycle frequency such as 60 to 90 seconds in order to dissuade jaywalking.

Crosswalk Striping at High-Volume Intersections

Description

Crosswalks at intersections should be striped in a manner that alerts motorists to the presence of pedestrians. The striping pattern should reflect the level of pedestrian traffic and location of the crosswalk. Ladder crosswalks should be used in high-traffic pedestrian areas, while crosswalks with parallel line striping should be used at low-traffic residential intersections. Parallel line striping should be adequate for most signalized or stop controlled intersections, although ladder striping may be used if necessary (for example, if the site has a history of pedestrian collisions).

Graphic



Potential Applications

- All high-volume intersections with pedestrian traffic.

Guidelines

1. In locations with significant pedestrian activity, crosswalks should be placed no further than 195-295 feet apart, and no closer than 145 feet apart.
2. In other locations with limited (but some) pedestrian activity, crosswalk frequency may be varied but should not exceed 395 feet without a crosswalk.
3. The stripes in parallel pavement marking crosswalks should be placed 10 feet apart. In situations where the crosswalk must be narrower, the minimum distance for parallel striping is 6 feet apart.
4. Ladder pavement markings should feature 2 foot wide by 10 foot long bars.

Pedestrian Warning Signage

Description

Pedestrian warning signage should accompany all pedestrian infrastructure improvements. Pedestrian warning signage may be placed on existing signposts (if appropriate) to reduce visual clutter.

Graphic

Potential Applications

- All pedestrian facilities.

Guidelines

1. Pedestrian signs should be installed according to the guidelines set forth in the CA MUTCD.
2. Pedestrian crossing signs (W54) should be used adjacent to all unexpected pedestrian crossing areas.
3. One drivers-side sign is appropriate on two-lane lower speed roads.
4. Two signs facing each direction should be installed on roads with more than two lanes, higher speed roads, or roadways with medians (with one sign on the median where medians exist, otherwise on the opposite side of the street).
5. The color of all pedestrian crossing signs should be "Fluorescent Yellow-Green" per (CA MUTCD).
6. Overhead pedestrian crossing signs should be installed on streets with four or more lanes or two or three lane roads with widths greater than 50 feet at crossings where pedestrian crossing activity is more than 50 to 100 crossing per hour or where sight distance of the driver may not allow view of roadside signs.
7. Pedestrian symbol signs (W11-2) should be installed in advance of pedestrian crossings at isolated crossing areas. These signs are typically not used in urban areas at intersections or where motorists would normally expect pedestrians.
8. Warning signage should be placed on existing signposts if possible to reduce visual clutter.

Pedestrian Signals

Description

Pedestrian signals ensure that pedestrians are given adequate time to cross the roadway and are not stranded in the crosswalk by signal lights with insufficient crossing time. Pedestrian push buttons, like the one shown below, should be accessible to people in wheelchairs and easy to find for the sight impaired. Depending on intersection configuration, location, and use, a variety of visual crossing indicators can be used.

Graphic

Pedestrian pushbutton, pedestrian countdown signal, vibrotactile pushbutton.

Potential Applications

- All high volume signalized intersections where pedestrian crossings are permitted.

Guidelines

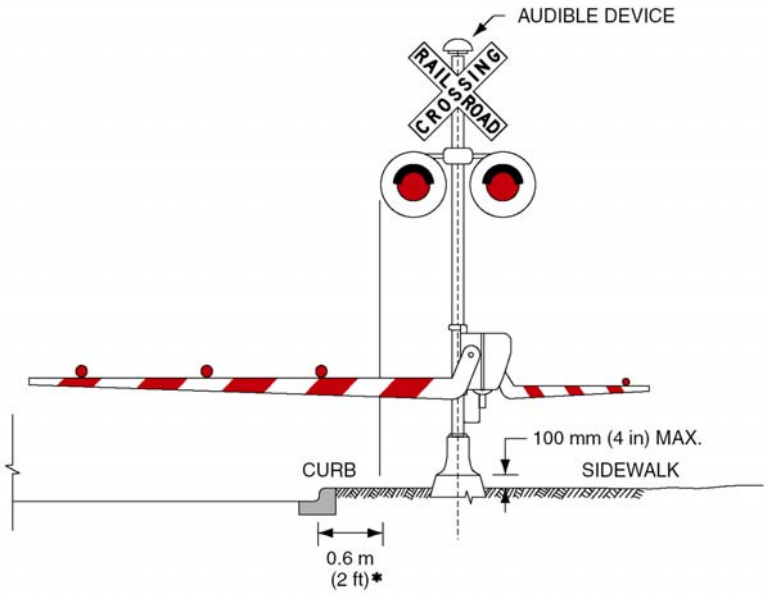
1. Pedestrian push buttons should be located at the level top of the curb ramp cut at approximately 40 inches off the ground.
2. Pedestrian pushbuttons should be located where sight impaired pedestrians can easily find them.
3. Vibrotactile pedestrian signals should be provided wherever sight-impaired pedestrians are expected.
4. All pedestrian signal placement complies with Caltrans and ADA guidelines.

Railroad Crossings

Description

At-grade railroad tracks can be hazardous for pedestrians to cross. Improvements can be made to alert pedestrians that they are crossing tracks and that there is an oncoming train. One example is recommended in the Projects Chapter of this Plan, truncated domes at crossings. Truncated domes help alert pedestrians as they are walking to cross the tracks with some caution. There are also other improvements that can help warn pedestrians of railroad crossings, such as signage. Railroad crossing warning signs can be placed near the sidewalk/railroad crossing. Another improvement is an arm that crosses the sidewalk when a train is approaching like arms that lower to stop vehicles approaching at-grade crossings. The graphic below shows how these railroad arms are attached to the same pole as the arm to stop vehicles and they cross the sidewalk, warning pedestrians of a train.

Graphic



Potential Applications

- All high volume pedestrian crossings of railroads

Guidelines

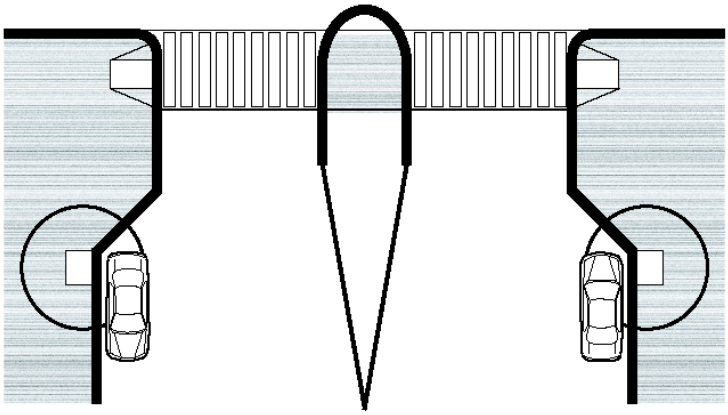
1. The pedestrian path should be at a 90 degree angle to the tracks.
2. The crossing surface should be smooth and flat to prevent wheelchair casters from dropping into the flangeway gap.
3. Detectable warnings such as truncated domes, flashing light signals, signs, and audible sounds should be used.

Pedestrian Refuge Islands

Description

Pedestrian refuges in wide or busy streets can improve safety for pedestrians and vehicles. They are defined as areas within an intersection or between lanes of traffic where pedestrians may safely wait until vehicular traffic clears, allowing them to cross a street. These islands are particularly helpful for seniors, the disabled, and children who may be unable to cross the street during the available signal time. Another benefit to pedestrians is that it can significantly reduce delay in crossing unsignalized intersections since the pedestrian need only search for vehicles in one direction at a time.

Graphic



Pedestrian refuge island at an intersection

Potential Applications

- Intersections with high vehicular traffic volumes and pedestrian traffic.
- Wide roadways where a two legged crossing will increase ability of pedestrians to cross roadways taking advantage of traffic gaps, without modifications to adjacent intersection signal timing.
- Multi-use path crossings of multi-lane roadways.

Guidelines

1. Detectable warnings such as truncated domes, flashing light signals, signs, and audible sounds should be used.
2. Pedestrian refuge islands should be installed at crossings of streets with 4 or more lanes, where a demonstrated crossing demand exists, and where it is feasible to provide a refuge island.
3. Pedestrian refuge islands should be installed at crossings of streets with two to three lanes, with traffic volumes higher 7,500 vehicles per day, and speeds greater than 35 mph.
4. Refuge islands should be a minimum of four feet wide by eight feet long. This is an absolute minimum that should not be used at multi-use path crossings or other locations where bicycle traffic may be anticipated.
5. Pedestrian refuge islands should be well illuminated.
6. Some type of vertical element should be provided on the island including trees, bollards, landscape features, or sign posts.
7. Pedestrian refuge islands should be ADA compliant; where it is not possible to include ramps and waiting pads that meet ADA requirements, waiting areas should be at-grade with the roadway.

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Appendix D. Safe Routes to School Toolkit

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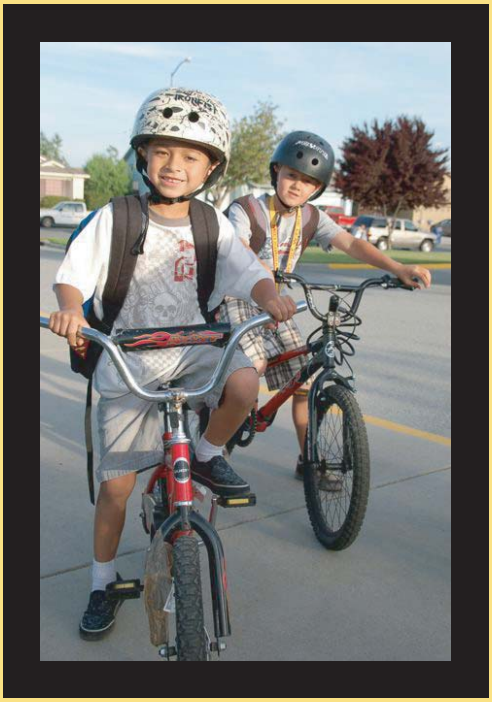
Council of San Benito County Governments
Safe Routes to School Toolkit



Council of San Benito County Governments

alta PLANNING + DESIGN

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1. INTRODUCTION

Council of San Benito County Governments (COG) developed this toolkit as part of their Bicycle and Pedestrian Master Plan Update and development of a Safe Routes to School Program. The purpose of this toolkit is to provide an overview of tools and strategies to improve safety and accessibility for bicyclists and pedestrians around school zones. San Benito County has a high percentage of youth, 35-percent of the county's population is 18 years of age or younger, this is the highest in the state. This population depends on bicycling and walking for transportation and this Toolkit includes infrastructure projects and programs that can help serve them.

WHAT IS SAFE ROUTES TO SCHOOL?

Safe Routes to School (SR2S) refers to a variety of multi-disciplinary programs aimed at promoting walking and bicycling to school, and improving traffic safety around school areas through education, incentives, law enforcement, engineering improvements, and evaluation measures. Walking and biking to school are healthy alternatives to being driven and can provide a sense of independence for children who may otherwise be restricted by school buses or parents' schedules. Safe Routes to School programs typically involve partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies. Among the goals of SR2S programs is improved safety for children, establishing good health and fitness habits in children, and decreased traffic and air pollution. SR2S programs help integrate physical activity into the everyday routine of school children. SR2S programs also address the safety concerns of parents by encouraging greater enforcement of traffic laws, educating the public, and exploring ways to create safer streets.

BENEFITS OF A SR2S PROGRAM

The primary benefit of implementing a SR2S program is the resulting increase in safety for children walking and riding bicycles to school. A comprehensive strategy based on a cooperative effort between school officials, parents, residents, and city staff will ensure that specific traffic, pedestrian, and bicycle improvements will become priority projects eligible for State, Federal or other grant funding. The involvement of various stakeholders throughout the Safe Routes process increases the likelihood for implementation of needed safety improvements. While the primary focus of a SR2S program is improving safety for children walking and biking to school, the safety benefits from the infrastructure improvements often extend to all pedestrians in the vicinity of schools.

In addition to safety enhancements, a SR2S program helps integrate physical activity into the everyday routine of school children. Health concerns related to sedentary lifestyles have become the focus of statewide and national efforts to reduce health risks associated with being overweight. Identifying and improving routes for children to safely walk and bicycle to school is one of the most cost-effective means of reducing weekday morning traffic congestion and can help reduce auto-related pollution.

Safe Routes to School improvements are often discussed in terms of the Five E's: Education, Encouragement, Enforcement, Engineering, and Evaluation.

Engineering — Signing, striping, and infrastructure improvements are implemented along school commute routes.

Education — Students are taught bicycle, pedestrian and traffic safety skills, and educational campaigns aimed at drivers are developed.

Encouragement — Events and contests such as walk-to-school days are used to encourage more walking, bicycling, or carpooling through fun and incentives.

Enforcement — Various techniques are used by law enforcement to ensure that traffic laws are obeyed, such as traffic stings targeted at pedestrian safety and speed feedback trailers.

Evaluation — Surveys and counts are good techniques to measure the effectiveness of the other four E's.

This toolbox is organized according to the Five E's, with Education and Encouragement grouped together since many educational programs are intended to be fun and motivating, and many encouragement programs include an educational component. In addition to the Five E's, this toolbox also includes section discussing Operational Tools that can improve safety during the drop-off/pick-up and school commute period.

There are numerous other excellent SR2S toolkits and guidebooks available, many of which are listed at the end of this document in the Resources section. This toolkit is not intended to supplant the information in those other guidebooks, but should instead be viewed as focused guidebook for describing tools and programs that may be appropriate to implement as part of San Benito's effort. For a more comprehensive overview of SR2S programs, including more details on specific educational and encouragement activities and tips for parents and teachers for starting a successful SR2S program, it recommended that readers refer to one of the other guides such as the NHTSA Safe Routes to School guide.

THE SCHOOL SITE AUDIT

One primary purpose of this toolkit is to provide a resource for local groups to conduct a "school site audit" of their school. A school site audit, sometimes called a walking audit or walkabout, is an assessment of the pedestrian and bicycling conditions around the school area. Typically school site audits are conducted by the local school group or task force on foot, by walking the routes that the students use to get to school. A site audit could also be conducted on bicycle in order to better evaluate bicycling conditions.

The goal of a site audit is to document conditions that may discourage walking and bicycling to school, and to identify solutions to improve those conditions. The audit should involve identification of the built environment around a school (e.g., streets, sidewalks, pathways, crosswalks and intersections, bike routes, traffic controls), the drop-off and pick-up operations (e.g. presence of designated loading areas), as well as behaviors of students, parents, and motorists that could contribute to unsafe conditions for bicyclists or pedestrians (e.g. speeding, jaywalking, failure to yield to pedestrians).

The toolkit provides some of the most common measures from the "5 E's" – Engineering, Education, Encouragement, Enforcement, and Evaluation that can be implemented to improve school area safety. The most successful SR2S programs will not focus on just one type of solution, but will involve the implementation of a combination of measures from all 5 E's. Many problems can be solved through relatively low-cost educational and enforcement activities. However, some problems do require more expensive engineering or design solutions.

It is important to note that not all tools in this toolkit will be applicable or appropriate for a given school. Many of the engineering tools have specific warrants for their installation and will require evaluation by a local traffic engineer to determine if they are feasible for a particular location. For this reason, it is strongly recommended that a local traffic engineer be invited along on all school site audits to provide guidance on the applicability of specific engineering improvements.

2. ENGINEERING TOOLS: IMPROVEMENTS TO THE PHYSICAL ENVIRONMENT

Engineering tools focus on the design of transportation facilities that provide safe and functional accommodation for bicyclists, pedestrians, and motorists. Engineering measures can help to improve pedestrian and bicyclist safety and access, reduce traffic volumes, and decrease vehicle speeds. These measures may include signage, markings, signals, pathways, and other traffic calming improvements that enhance safety and mobility. Although some engineering solutions are higher-cost infrastructure improvements, many engineering tools can be implemented without large expenditures, such as posting signs, modifying signal timings, or painting crosswalks or bike lanes.

THE SCHOOL ZONE

In California, school zones can be designated on all roadways contiguous to a school serving K through 12th grade. School zone signage should be posted at the school boundary, but can be posted up to 500 feet in advance. Regardless of the posted speed limit on the roadway, the speed limit is 25 mph in designated school zones when children are present. With School Zones signed and delineated, focused traffic enforcement can occur to target speeding and other moving violations.

School Area Signage

The 2003 Manual on Uniform Traffic Control Devices (MUTCD) and California Supplement provide guidance on school area signs and markings. Key signs include the School Warning, School Crosswalk Warning, School Speed Limit, and School Advance Warning. The use of other signs are described in the 2003 MUTCD and the California Supplement.

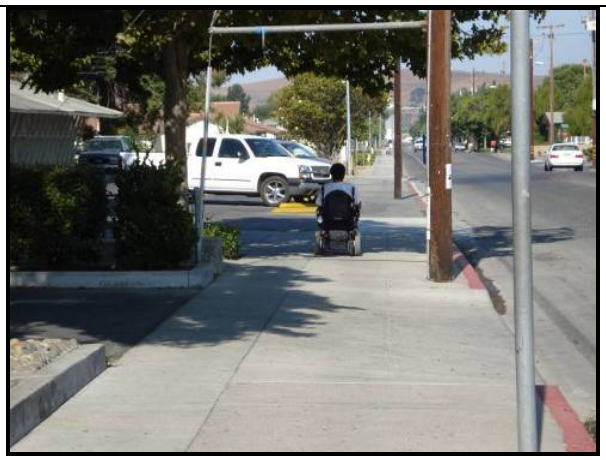
One way of increasing the visibility of school area signage is through the use of Fluourescent Yellow-Green signs. When the fluourescent yellow-green background is used for school signing, mixing standard yellow and fluourescent yellow-green should be avoided.

Pavement Markings

In some cases, pavement markings are used to supplement the regulations or warnings provided by traffic signs or signals. In other instances, they are used alone and produce results that not obtained with other devices and can serve as an effective means of conveying certain regulations, guidance, and warnings that could not otherwise be made understandable. The "SLOW SCHOOL XING" marking, used in advance of uncontrolled crosswalks, is the most important school-specific pavement marking. The 2003 MUTCD and California Supplement also provide guidance on the use of stop lines, yield lines, curb markings, and other symbol markings

Sidewalks

Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel that is separated from vehicle traffic. Sidewalks are a common application in urban and suburban environments, but are less common in rural areas like the San Benito region. In San Benito County, pedestrian travel commonly occurs along the shoulder of the roadway, areas that are often unpaved.



Trails and Pathways

Trails and pathways are often viewed as recreational facilities, but can also serve an important function as a walking and bicycling corridor to school. Multi-use pathways are designed to serve both bicyclists and pedestrians, and provide additional width over a standard sidewalk. In rural areas, pathways can serve as an alternative to formal curb, gutter and sidewalks; if an asphalt hardscape is not desired, pathways can be constructed with decomposed granite or another aggregate material to better fit in with the rural environment. Regardless of the type, pathways constructed next to the road must have some type of vertical (e.g. curb or barrier) or horizontal (e.g. landscaped strip) buffer to separate the path area from the adjacent travel lane.

CROSSINGS

School crosswalks denote the preferred location for children to cross the street. In California, yellow crosswalks are used whenever a marked pedestrian crosswalk has been established in a roadway contiguous to a school building or school grounds. The 2003 MUTCD and California Supplement provide guidance on the use of stop lines, yield lines, curb markings, and other symbol markings.

A number of treatments can be used to increase the visibility of crossing locations, helping to enhance the safety of school children crossing the street and to warn motorists to expect children to cross the street at a specific location.

High-Visibility Crosswalk Striping

Several different crosswalk striping patterns can be used – the standard crosswalk striping pattern consists of two parallel lines, called the "transverse" pattern. A number of "high visibility" patterns are also in use, such as the ladder, zebra and continental patterns, which add bars for increased visibility.

In-Street Yield to Pedestrian Signs

In-Street Yield to Pedestrian Signs are flexible plastic signs installed in the median to enhance a crosswalk at uncontrolled crossing locations. These signs communicate variations of the basic message 'State Law: Yield to Pedestrians'. At school crosswalks, these signs are sometimes installed on a portable base and brought out in the morning and back in at the end of each day by school staff, which may reduce the chance that the sign will become invisible to motorists by being left out all the time.

Overhead Flashers

Overhead flashers can be used at uncontrolled crossing locations with high vehicle volumes or speeds, or where other conditions require a more intense treatment than a high-visibility crosswalk. There are several types of overhead flashers including both standard yellow, fluorescent yellow-green, and LED displays. These hang from a mast arm that extends over the street. Some applications use flashing red or yellow beacons to enhance overhead signs, while at others, it is the pedestrian crossing sign itself that flashes. Drawbacks of overhead flashers include high-cost and that they may not be immediately understandable by drivers.

In-Pavement Crosswalk Lights

Another crossing treatment that is increasingly being utilized is in-pavement crosswalk lighting, which consists of flashers mounted in the street pavement adjacent to the outside of the crosswalk markings, positioned so as to be seen by oncoming traffic. The lights are actuated, either through a push-button or a motion sensor, to flash while the pedestrian crossing is in use.

Traffic Signals and Pedestrians

The MUTCD states that the pedestrian clearance time should be sufficient to allow a pedestrian who leaves the curb or shoulder during the WALK signal indication to travel at a walking speed of 4.0 feet per second, to reach the far side of the traveled way or at least a median of sufficient width for pedestrians to wait. The 4.0 feet per second "normal" walking rate has been greatly debated by transportation professionals, as many feel that it does not adequately take into account users who may walk slower, such as children or senior citizens. Many transportation engineers working on pedestrian issues recommend using a walking speed of 3.0 or 3.5 feet per second in areas with high concentrations of schoolchildren or senior citizens.

Countdown Signals

Countdown signals device consists of a pedestrian signal with standard shapes and color and an added display that shows the countdown of the remaining crossing time. The countdown timer starts either at the beginning of the pedestrian phase or at the onset of the pedestrian clearance interval. The timer continues counting down through the pedestrian clearance interval. At the end of the pedestrian clearance interval, the countdown device displays a zero and the DON'T WALK indication appears.

TRAFFIC CALMING

Traffic calming is a traffic engineering technique that prioritizes people over motor vehicles in the design of neighborhood streets. Traffic calming measures are intended to enhance pedestrian safety and encourage safe driving by slowing vehicles and reducing cut-through traffic on local neighborhood streets. Potential traffic calming tools include raised crosswalks, curb extensions, chicanes, chokers, pedestrian refuge islands, medians,

traffic circles and roundabouts, speed humps, and radar speed displays. Traffic calming may also involve total reconfiguration of roadway lanes, such as four-lane to three-lane conversions (or "road diets") that also provide opportunities to add bike lanes and median refuge islands along a corridor.

Curb Extensions

Curb extensions (sometimes called curb bulbs or bulb-outs) have many benefits for pedestrians. They shorten the street crossing distance, provide additional space at corners, allow pedestrians to see and be seen before entering the crosswalk, and simplify the placement of elements like curb ramps. Curb extensions may be used at any corner or mid-block location where there is a marked crosswalk and a parking lane that can absorb the extension of the curb.

Bicycle Facilities

Bicycling is an important mode of transportation for safe routes to school. Providing bicycle facilities on neighborhood streets and on campus can help students bike to and from school. Bicycling serves as an easy mode for students that live to far to walk. There are some specific facilities that can faciltate student travel by bike.

On-Street Bicycle Facilities

Although it may be appropriate for younger children to bicycle on the sidewalk, designated on-street bicycle facilities can provide a space for older or more experienced children to bicycle on-street. Particularly for older grade levels, as children become more confident in their cycling skills and ride at faster speeds, designated on-street facilities may help to reduce bicycle/pedestrian conflicts on congested walkways near schools. Bike Lanes provide a striped and stenciled lane for one-way travel on the roadway. Bike Routes provide for shared use of the roadway lane with motor vehicle traffic and are identified only by signing. Bicycle Boulevards are commonly on neighborhood streets, parrelel to busier arterials or collectors.

Bicycle Parking

Providing a secure and convenient location for bicycle parking is one way to help encourage more children to bicycle to school. Several factors need to be considered when determining bicycle-parking needs including the amount, location, type of device, and monitoring. Bike parking at schools are commonly found in cages, opened during the morning arrival and afternoon dismissal times. These help add security to bike parking.

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3. OPERATIONAL TOOLS: IMPROVING DROP-OFF / PICK-UP AND THE SCHOOL COMMUTE

Operational tools focus on methods to ensure that vehicle traffic, busing and transit, and walking and bicycling to school is conducted in the safest and most efficient way possible. Many of the identified operational tools focus on vehicle pick-up and drop-off activities, ensuring adherence to established procedures, developing specific systems to move vehicles through the loading zone, and use of monitors to expedite the process. Other operational tools focus on ways to incorporate walking and bicycling into the school commute, while ensuring that children are kept safe along the way.

Crossing Guards

Adult crossing guards are used to help create gaps in traffic at uncontrolled intersections, and to "platoon" children across the street at controlled intersections. The presence of a crossing guard in the roadway serves as an easily recognized indication to drivers that pedestrians are about to use the crosswalk and that all traffic must stop. When all traffic has stopped, the adult guard can allow the children to cross.

School Safety Patrol

School Safety Patrols are comprised of students that have been trained to guide school pedestrians and assist existing traffic control devices, police officers, or adult crossing guards. School Safety Patrols may be used to direct and control children at crossings near schools where there is no need to create adequate gaps in traffic. They may also be used where adequate crossing gaps exist in vehicular flow at uncontrolled crossings where it is desirable to guide school pedestrians.

Parent Drop Off/Pick-Up Operations

Creation of a parent drop-off/pick-up "loop" can help maximize capacity and safety and minimize delay drop-off and pick-up operations. The loop can be either a dedicated lane for pick-up/drop-off, or a portion of the larger parking lot that has been marked with cones to serve as the pick-up/drop-off loop. Regardless of the design, having staff or volunteers available to supervise the drop-off/pick-up will often play a large part in making the procedures successful. Having supervisors present can help to ensure that loading/unloading moves forward smoothly and efficiently, maximizing the space available with no bottlenecks.

Valet Drop-Off

Valet drop-off is a technique to improve traffic flow within the drop-off and pick-up loop by assisting students into and out of vehicles. A "valet" is present at the pick-up/drop-off area to open car doors and assist students into and out of arriving vehicles, improving the traffic flow. The valet system eliminates the need for parents to get out of the vehicle to open the door for a child and remove bags or other items. The valet system is typically staffed by school staff or parent volunteers, who can quickly and efficiently move children into and out of vehicles and hold onto backpacks, umbrellas and other items.

Walking School Bus/Bike Train

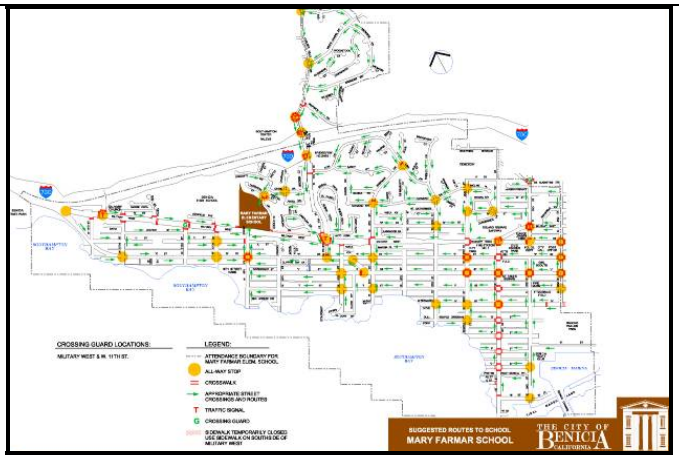
If parents are uncomfortable allowing their children to walk or bicycle alone to or from school, parent or neighborhood volunteers can escort a group of children walking or bicycling to school together in a "Walking School Bus" or "Bike Train." Children can be picked up at home along the route, or at designated staging areas. The parents offer a level of supervision and protection and the larger numbers allow the children to be more visible to traffic. Usually, one parent acts as the organizer, recruiting other parents, neighbors, seniors or community volunteers to walk or bicycle with the children. As in a carpool, the participants need to work out schedules and meeting places. Adults and children can wear safety vests or use other means to enhance visibility. Sometimes the adult pulls a wagon to carry the children's books and projects.

4. EDUCATION AND ENCOURAGEMENT TOOLS: TEACHING SAFETY AND PROMOTING AWARENESS

Education and Encouragement tools focus on teaching traffic, pedestrian and bicycle safety to parents and students, increasing public awareness of Safe Routes to School goals and benefits, and promoting changes in behavior to increase walking and bicycling. Educational activities teach children age-appropriate skills related to bicycling and walking, familiarizing students with the positive benefits of bicycling and walking, and foster greater attention by the community in general to the need to operate motor vehicles more safely, especially in school zones. Encouragement activities include a variety of special events and contests, outreach campaigns, presentations to school and community groups, and surveys of current practices and attitudes related to the school commute. San Benito COG currently conducts events during Bike Week, including Bike to School Day in May every year. A major objective of educational and encouragement tools is to increase the understanding by parents, school personnel, students, and the community of the health and safety concerns that can be addressed by successful SR2S programs.

Suggest Route to School Maps

Suggested Route to School maps provide school officials, parents, and students with a tool to help plan the best walking and bicycling routes to and from school. The maps help to illustrate the safest walking, bicycling, and crossing locations by identifying traffic controls, crossing guard locations, and the presence of sidewalks, pathways, or bicycle facilities along routes leading to a given school. Suggested Route to School maps can also serve as a tool for city staff to identify the location of needed transportation infrastructure improvements in school areas.



Walk and Bike to School Days

Walk and Bike to School Days are intended to encourage children to try walking or bicycling to school. The most well-known of these is International Walk to School Day, a major annual event that attracts millions of participants in over 30 countries each October. Additional walk and bike to school days can be held yearly, monthly, or weekly, depending on the level of support and participation from children, parents, school, and local officials. These events should be promoted through press releases for the media, articles in the school newsletters, and posters and flyers for children to take home.

Classroom Lessons and Activities

Curricula and classroom activities are available to help teach children about walking, bicycling, health and traffic safety. These may include lessons given by law enforcement officers, other trained professional, or as a lesson developed by teachers. Examples of lesson include: Safe Street Crossing; Helmet Safety; Rules of the Road for bicycles; Health and Environmental Benefits of Walking and Biking, and Stranger Safety. Getting class time is difficult – and there is a growing movement to develop SR2S curricula that can be incorporated into regular math and problem solving lesson plans so that these activities do not take away from regular teaching time.

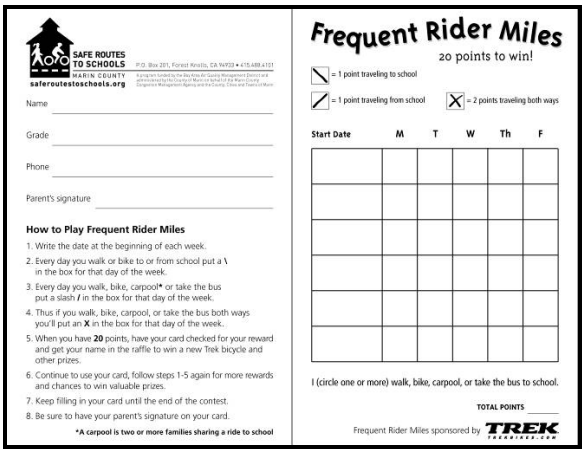
An example projct is "Walk and Bike Across America", where students track the number of daily miles they travel (walking or biking) to and from school and add the class miles together to travel across a map of the United States. The students can conduct the activity as a class, or gather miles from the entire school (thus increasing the number of miles that they travel). Along the way students "visit" locations such as national parks and historical monuments, learning history lessons, and geography.

Contests

Contests reward students by keeping track of the number of times they walk, bike, carpool, or take transit to school. Contests can be individual, classroom competition, or interschool competitions. Local businesses will often provide incentives and prizes. Two examples of contests include:

Frequent Rider Miles – Children are issued tally cards to keep track of "points" for the each time they walk, bike, bus or carpool to or from school. When they earn a specified number of points they get a prize and are entered in a raffle for a larger prize.

Golden Sneaker Award – Each class keeps track of the number of times they walk, bike, carpool or take the bus to school and compiles these figures monthly. The class that has the most participation gets the Award. (The award is created by taking a sneaker and painting it gold.) The winning class gets a pizza party.


SAFE ROUTES TO SCHOOLS
MARIN COUNTY
saferoutestoschools.org

Name
Grade
Phone
Parent's signature

How to Play Frequent Rider Miles

1. Write the date at the beginning of each week.
2. Every day you walk or bike to or from school put a \ in the box for that day of the week.
3. Every day you walk, bike, carpool* or take the bus put a slash / in the box for that day of the week.
4. Thus if you walk, bike, carpool, or take the bus both ways you'll put an **X** in the box for that day of the week.
5. When you have **20** points, have your card checked for your reward and get your name in the raffle to win a new Trek bicycle and other prizes.
6. Continue to use your card, follow steps 1-5 again for more rewards and chances to win valuable prizes.
7. Keep filling in your card until the end of the contest.
8. Be sure to have your parent's signature on your card.

*A carpool is two or more families sharing a ride to school

Frequent Rider Miles

20 points to win!

\ = 1 point traveling to school
/ = 1 point traveling from school
X = 2 points traveling both ways

Start Date	M	T	W	Th	F

I (circle one or more) walk, bike, carpool, or take the bus to school.

TOTAL POINTS _____

Frequent Rider Miles sponsored by TREK

Safety Education

Pedestrian and bicycle safety education helps ensure students have knowledge about basic traffic safety rules. Pedestrian training is typically recommended for first- and second-graders. Bicycle safety training is normally appropriate beginning in third grade, and helps children understand that they have the same responsibilities as motorists to obey traffic laws. Child bicycle safety education is often conducted in the "bicycle rodeo" format, using various stations to teach children traffic safety and bicycle control.

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5. ENFORCEMENT TOOLS: ENSURING COMPLIANCE WITH TRAFFIC LAWS

Enforcement tools are aimed at ensuring compliance with traffic and parking laws in school zones. Through a variety of active and passive methods, enforcement activities help to reduce the threats to the health and safety of children associated with activities such as speeding, failing to yield to pedestrians, illegal turns, illegal parking, and other violations. Enforcement strategies, in conjunction with education efforts, are intended to clearly demonstrate what is expected of motor vehicle operators and to make them accountable for the consequences of their actions. While enforcement tools logically center on police and other law enforcement, they also entail working with school officials, crossing guards, parents and volunteers. In addition to motor vehicle enforcement, these activities also focus on ensuring that students walking and bicycling to school are complying with traffic laws.

TARGETED ENFORCEMENT

Law enforcement agencies can increase the presence of police near schools or high-conflict areas in order to curb unlawful behavior. People tend to slow down and improve their driving behavior if they expect law enforcment to be present. These targeted enforcement activities can be effective but are labor intensive in that they require dedication of police officer resources in a single location. In addition, once the targeted enforcement period has ended and motorists realize that the police presence is gone, they may revert to speeding or driving unsafely. Several of the following enforcement programs require police

Crosswalk Sting

In a crosswalk sting operation, the local police department targets motorists who fail to yield to pedestrians in school crosswalk. A plain-clothes "decoy" police officer ventures into a crosswalk or crossing guard-monitored location, and motorists who do not yield are given a citation by a second officer stationed nearby. Typically a motorcycle officer issues the citations, hidden between nearby parked vehicles. The police department or school district may alert the media to crosswalk stings to increase public awareness of the issue of crosswalk safety, and news cameras may accompany the police officers to report on the sting.

Radar Trailer

Speed Radar Trailers can be used to reduce speeds and enforce speed limit violations in known speeding problem areas. In areas with speeding problems, police set up an unmanned trailer that displays the speed of approaching motorists along with a speed limit sign.

Speed Feedback Sign	
A permanent speed radar sign can be used to display approaching vehicle speeds and speed limits on roadways approaching the school site. The unit is a fixed speed limit sign with built-in radar display unit, that operates similar to a Radar Trailer. In order to maximize effectiveness for school settings, the radar display unit should be set to only activate during school commute hours. Roadways approaching the school site are the most appropriate location to display speeds, as opposed to streets along the school frontage that will likely have lower speeds due to pick-up/drop-off traffic.	 

6. RESOURCES: LINKS TO OTHER SR2S TOOLKITS AND GUIDEBOOKS

National Center for Safe Routes to School

The National Center for Safe Routes to School assists communities in enabling and encouraging children to safely walk and bike to school. The Center strives to equip Safe Routes to School programs with the knowledge and technical information to implement safe and successful strategies. The website includes links to an academy of National SR2S Instructors who lead trainings and provide assistance to local jurisdictions wishing to develop a SR2S program.

Web site:
www.saferoutesinfo.org

KidsWalk-to-School: A Guide to Promote Walking to School

This guide by the Centers for Disease Control and Prevention is a tool to help you develop a walk-to-school program that is appropriate for your neighborhood. It includes a checklist and step-by-step guidelines for creating a KidsWalk-to-School program such as a "walking school bus." Sample letters, surveys, forms, and an extensive list of resources are included.

Web site:
http://www.cdc.gov/nccdphp/dnpa/kidswalk/

Pedestrian Safety Toolkit

This toolkit includes resource materials that states and communities can use to implement their pedestrian safety programs and achieve their goals. It contains a compilation of federal agency pedestrian safety videos; an interactive CD-ROM of pedestrian resources with subject-to-subject cross referencing; a user manual that explains how to create effective pedestrian safety programs; a resource manual that references NHTSA, Federal Highway Administration and Federal Railroad Administration materials; and sample materials and information that cover the basics for all who want to do pedestrian safety and advocacy.

Web site: http://safety.fhwa.dot.gov/ped_bike/docs/resourcecatalog.pdf

Safe Routes To Schools Toolkit

This toolkit, developed by the Marin County Safe Routes To Schools project in California — in partnership with NHTSA and the California Department of Health Services — is designed to be used in initiating and implementing a Safe Routes To Schools program. It includes examples of classroom activities, ideas for promotions, information on safe streets, resources, and forms to assist you along the way.

Web site: http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2002/

Way to Go! Manual and Resource Kit

The "Way to Go! Manual and Resource Kit" can help parents, teachers, and student groups design and implement school-based, traffic-reduction programs in their communities. It includes ideas, strategies, information, and educational and curriculum resources. Other manuals available include: "Bike Smarts: A Handbook;" "RoadSenseKids: Passport to Safety (Teaching Guide for K-3);" and "Walking/Wheeling Challenge Map."

Web site: www.waytogo.icbc.bc.ca

National Strategies for Advancing Child Pedestrian Safety and National Strategies for Advancing Bicycle Safety

"National Strategies for Advancing Child Pedestrian Safety" details six strategies and action steps readily implemented by anyone interested in reducing pedestrian injuries among children, all while encouraging them to become more active and explore their environment on foot. "National Strategies for Advancing Bicycle Safety" is designed to be a roadmap for policy makers, safety specialists, educators, and the bicycling community to follow as they promote national, state and local efforts to increase safe bicycling. It includes goals, strategies, short- and long-term actions that can reduce injuries associated with bicycle riding.

Web site:
http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/bicycle_safety/

Appendix E. Routes to School Maps

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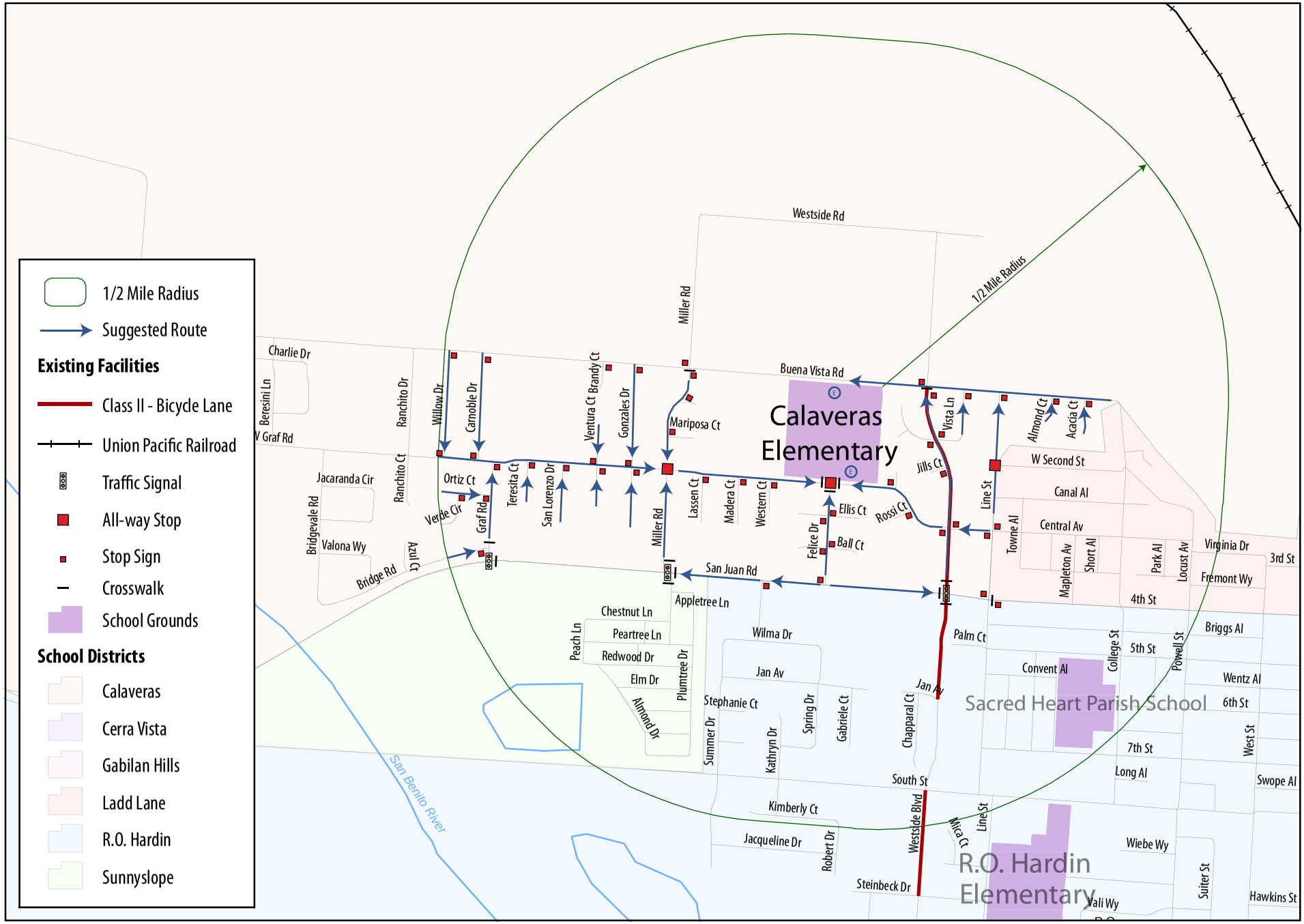
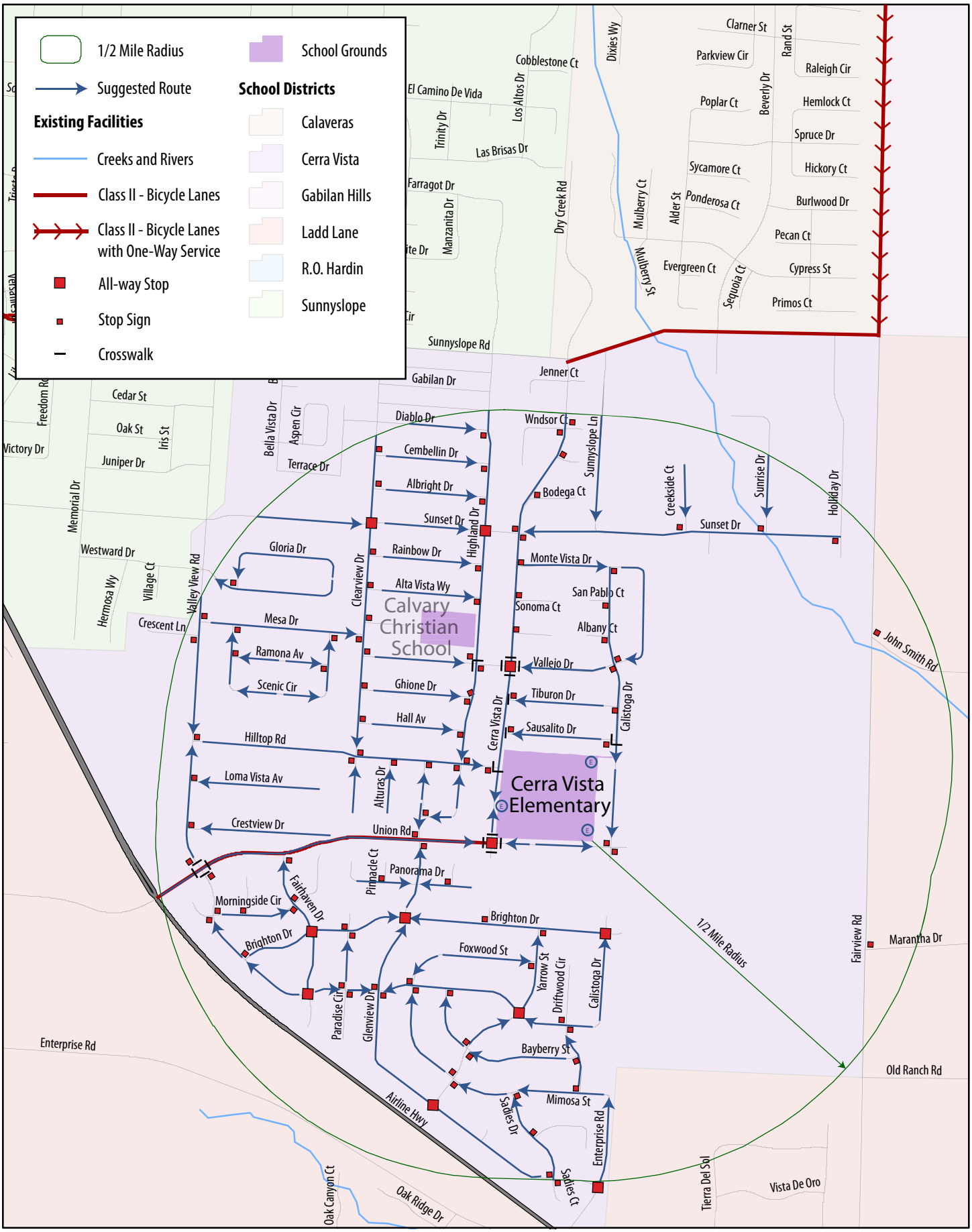


Suggested Routes To School

Calaveras Elementary School
Hollister, CA

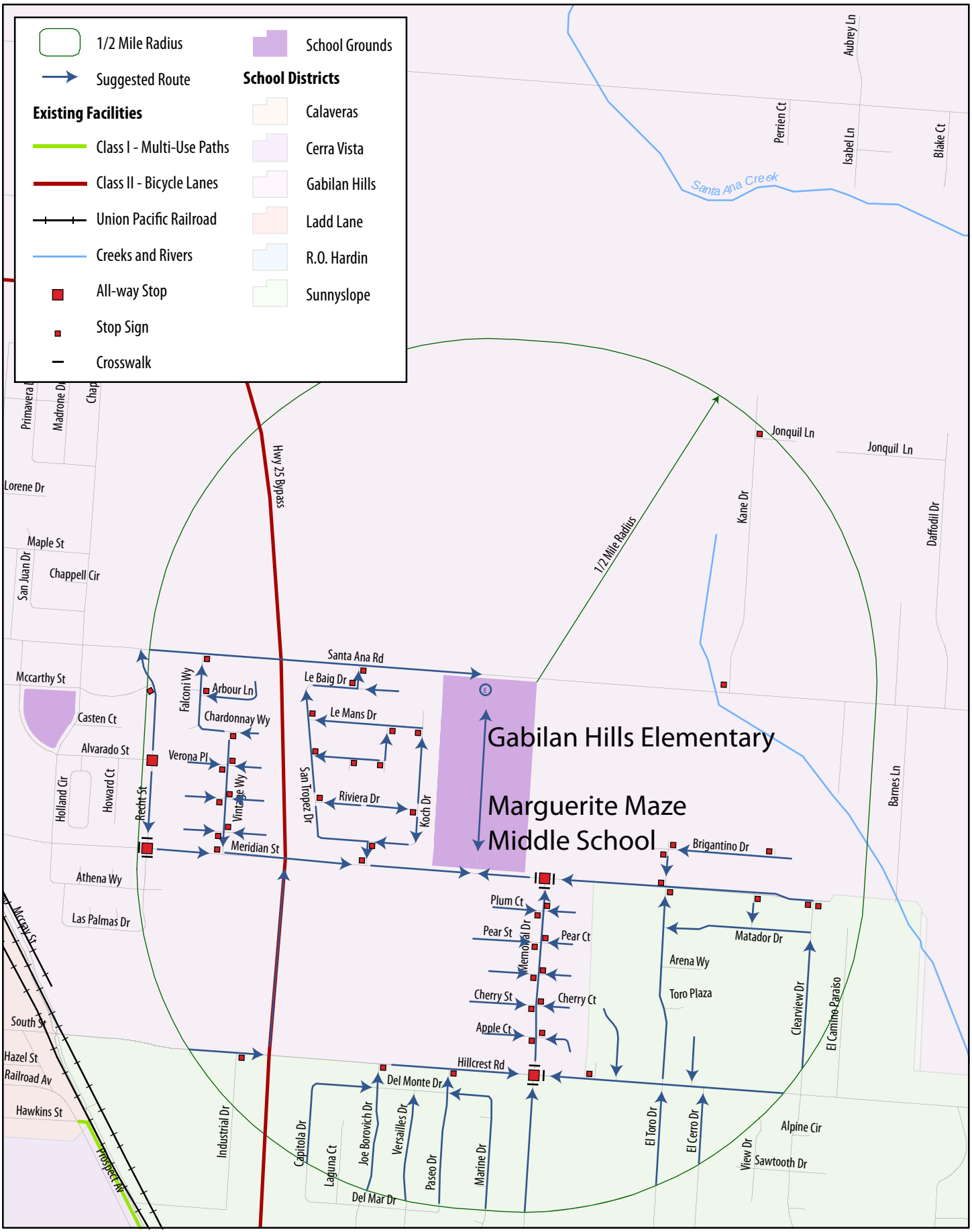
Source: Data obtained from San Benito County and ESRI



Suggested Routes To School

Cerra Vista Elementary School
Hollister, CA

Source: Data obtained from San Benito County and ESRI



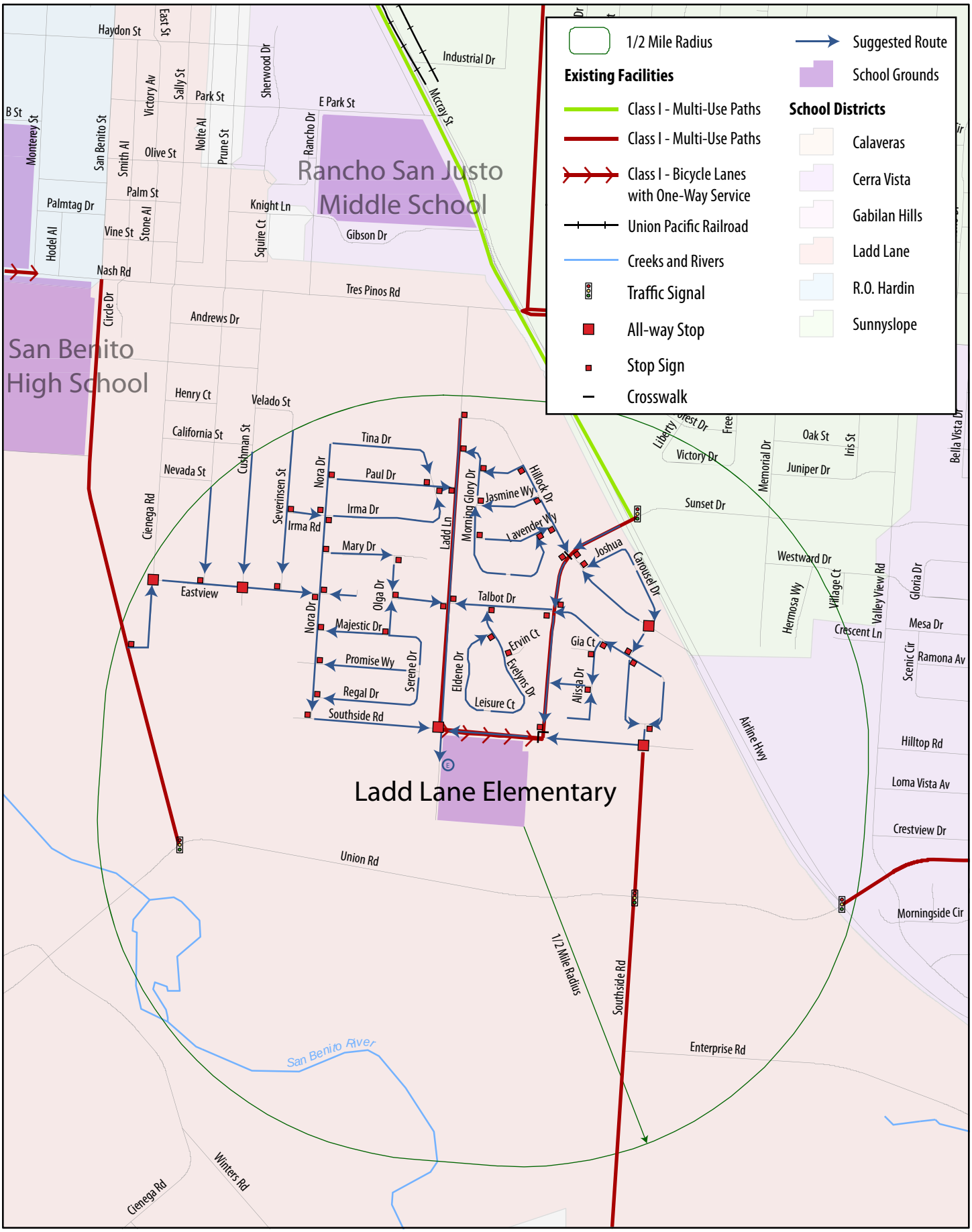
Suggested Routes To School

Gabilan Hills Elementary and Marguerite Maze Middle School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

alta PLANNING + DESIGN



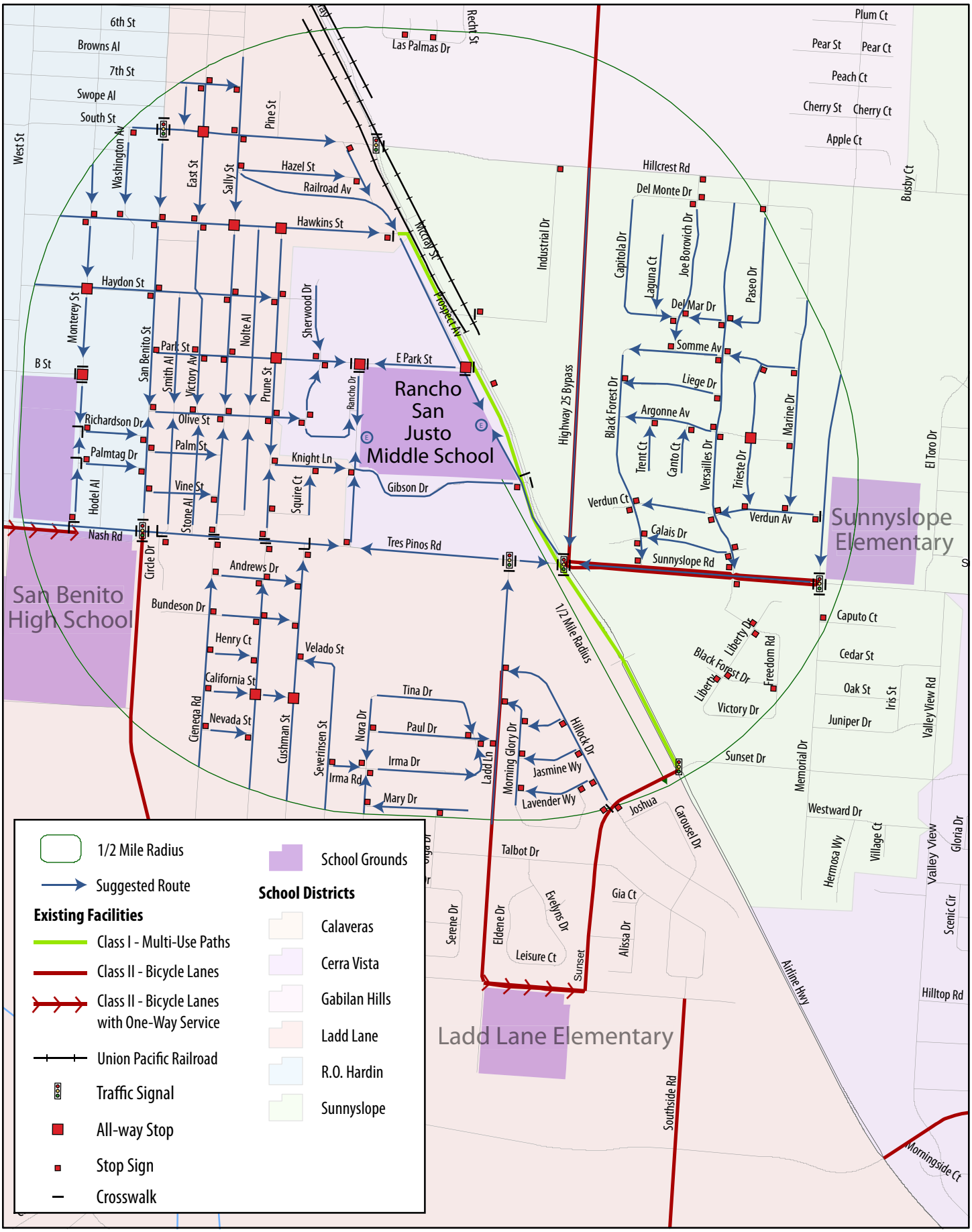
Suggested Routes To School

Ladd Lane Elementary School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

alta PLANNING + DESIGN



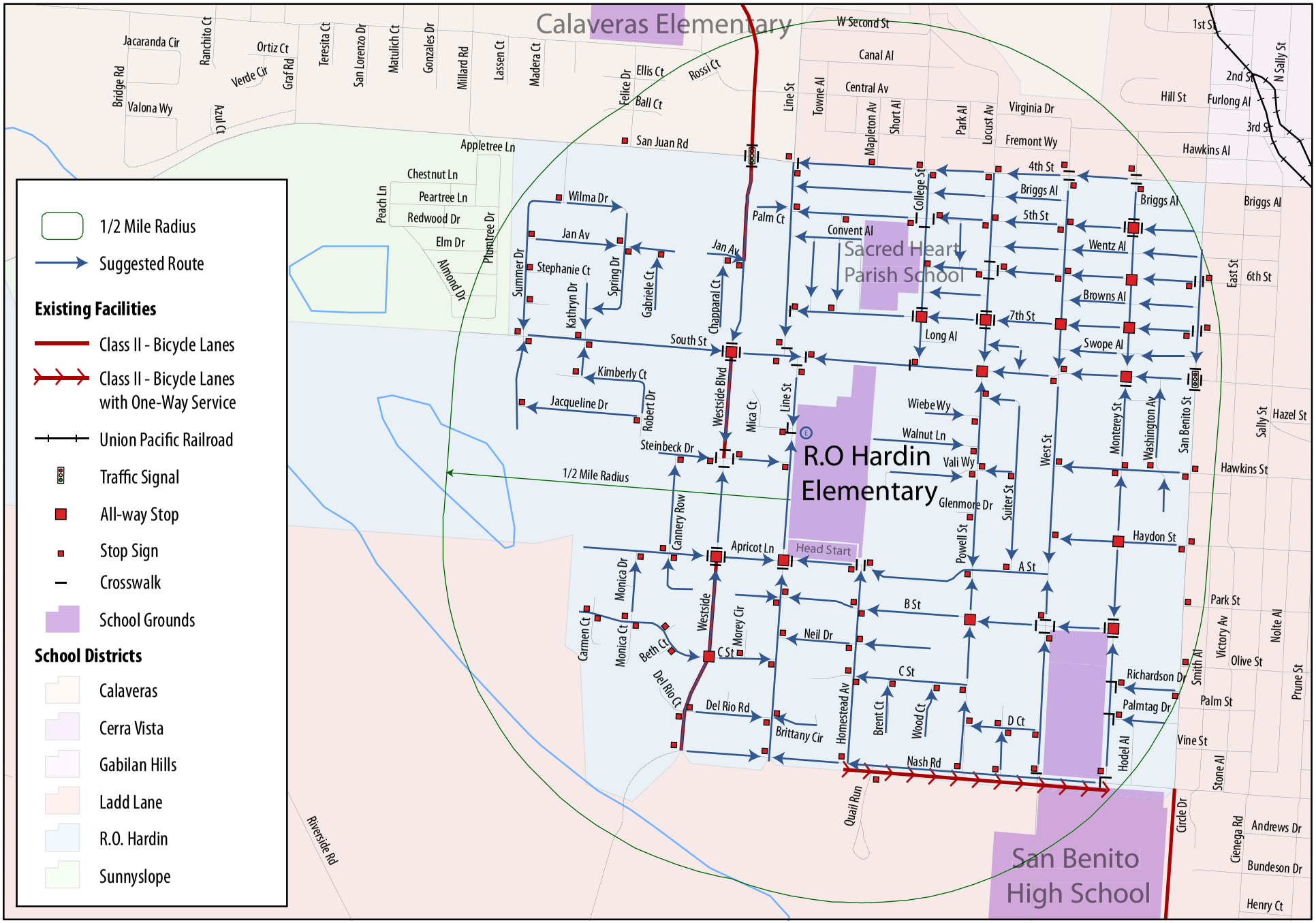
Suggested Routes To School

Rancho Justo Middle School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

alta PLANNING + DESIGN



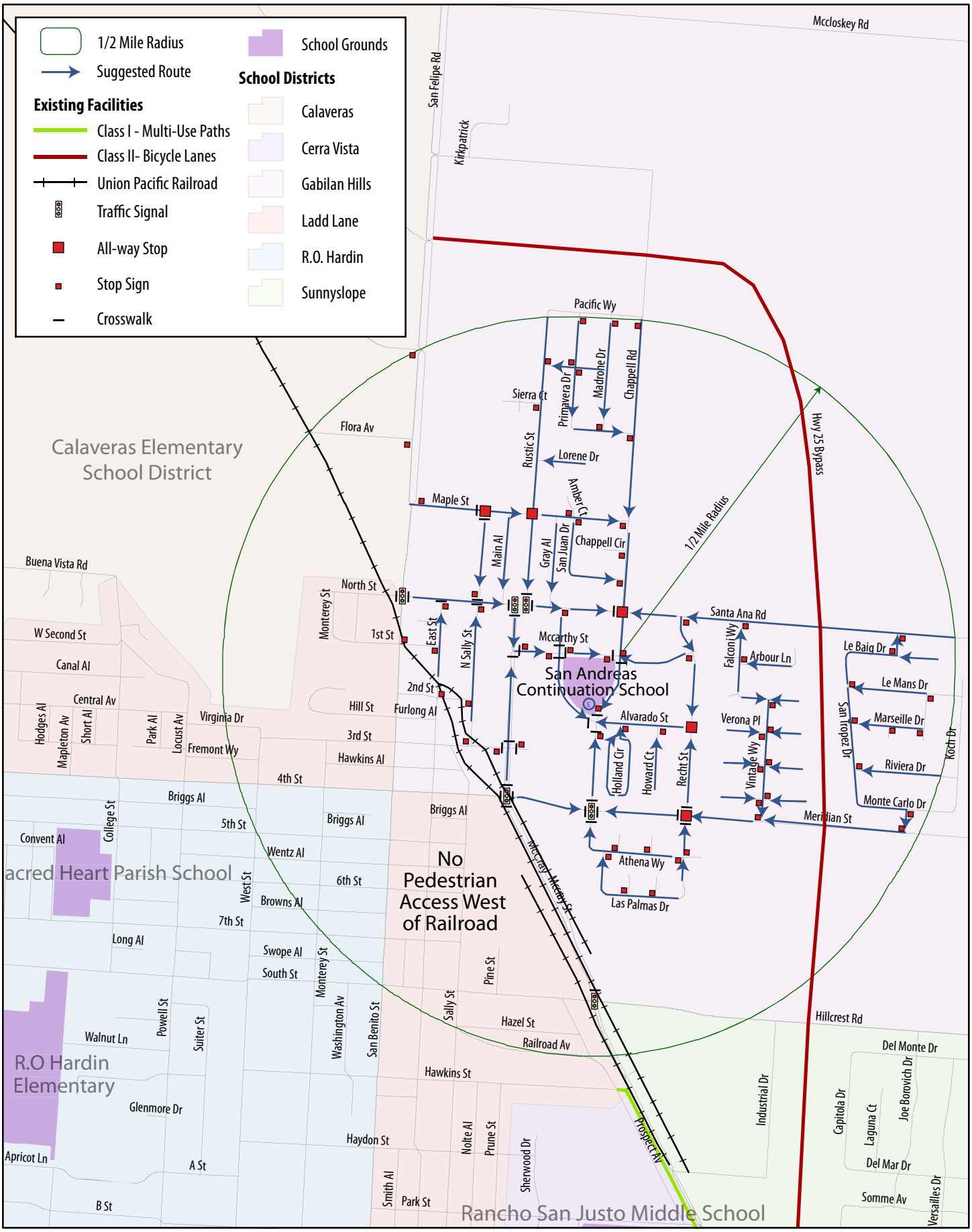
Suggested Routes To School

R.O. Hardin Elementary School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

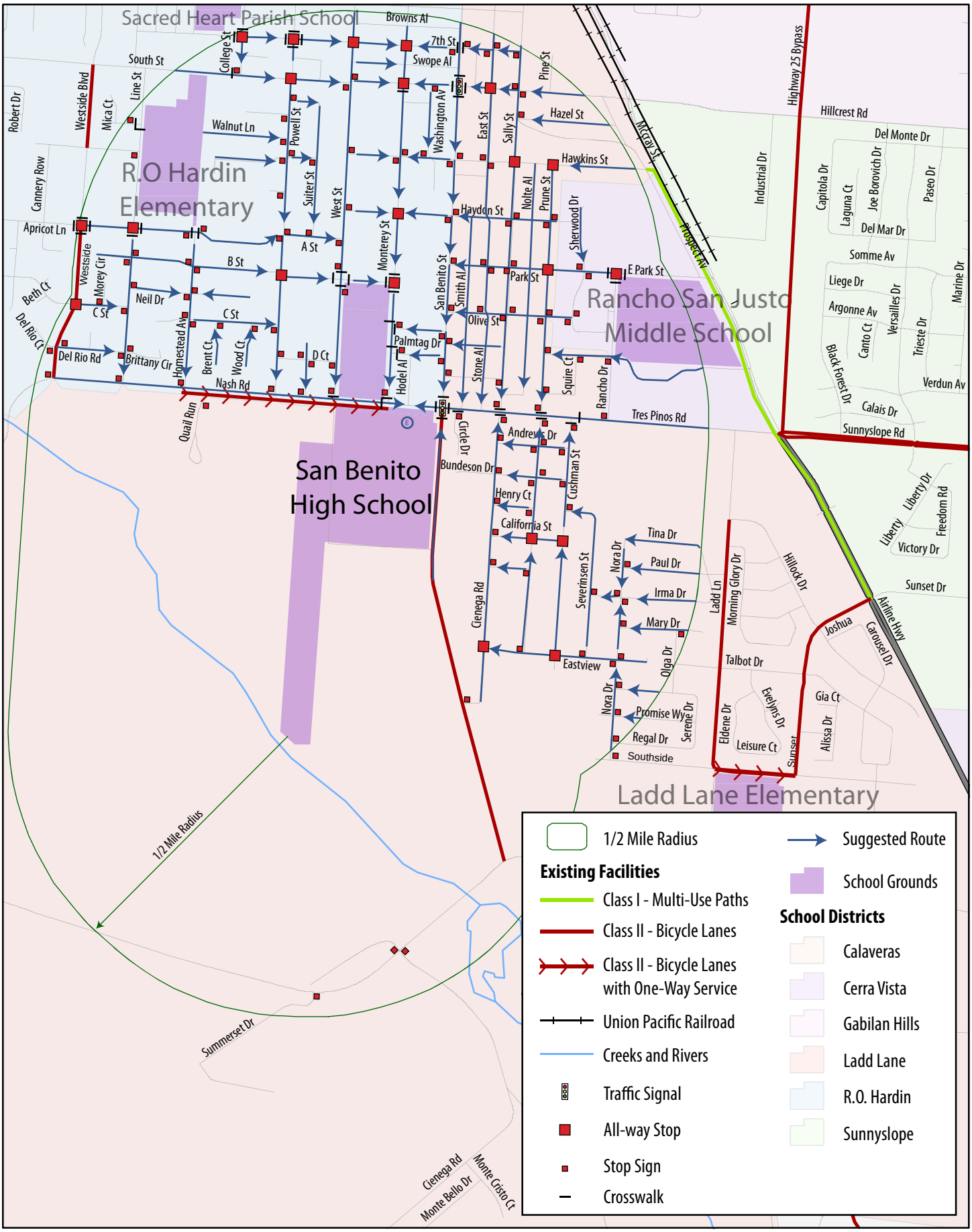
alta PLANNING + DESIGN



Suggested Routes To School

San Andreas Continuation High School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

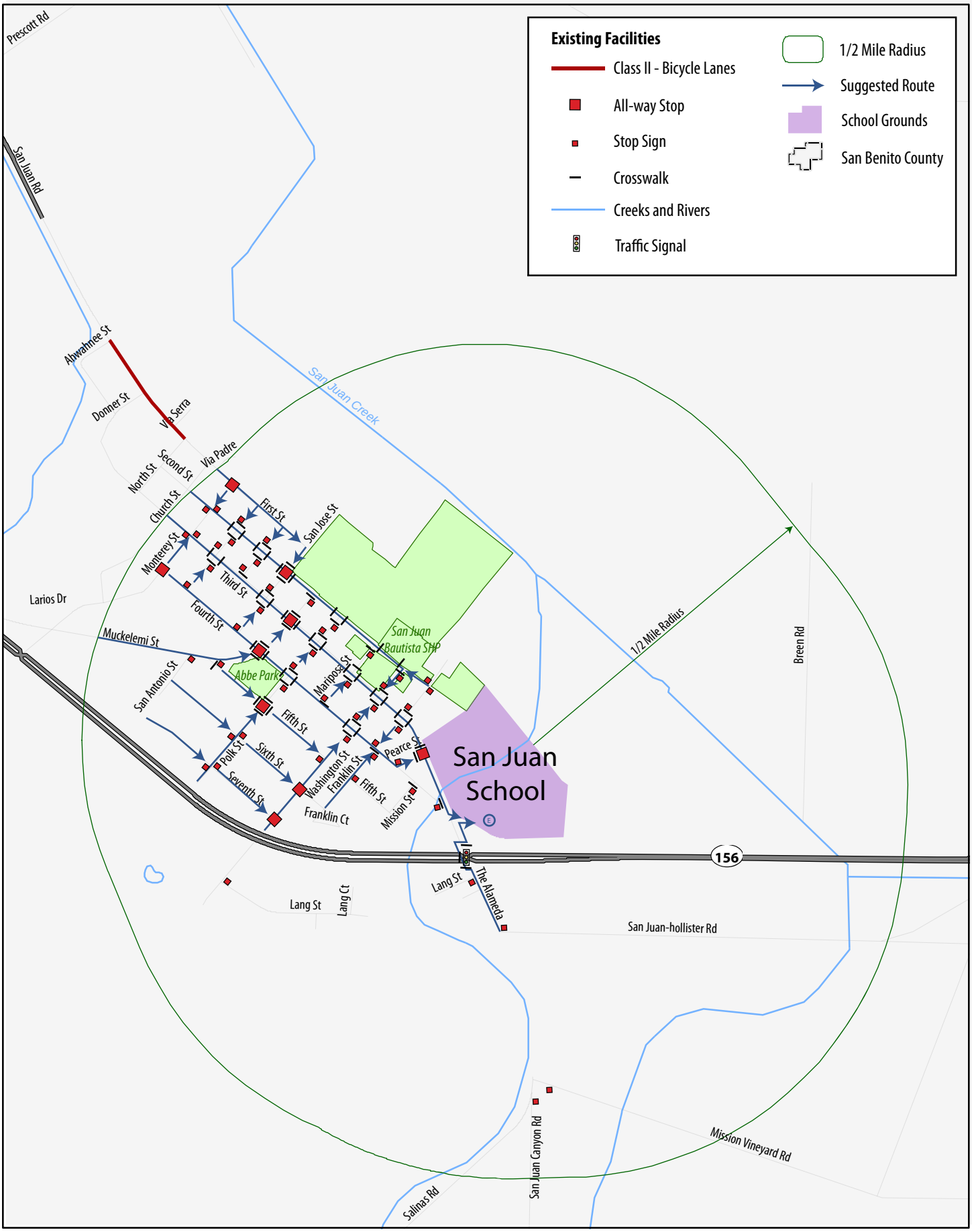


Suggested Routes To School

San Benito High School
Hollister, CA
Source: Data obtained from San Benito County and ESRI

0 625 1,250 Feet

alta PLANNING + DESIGN

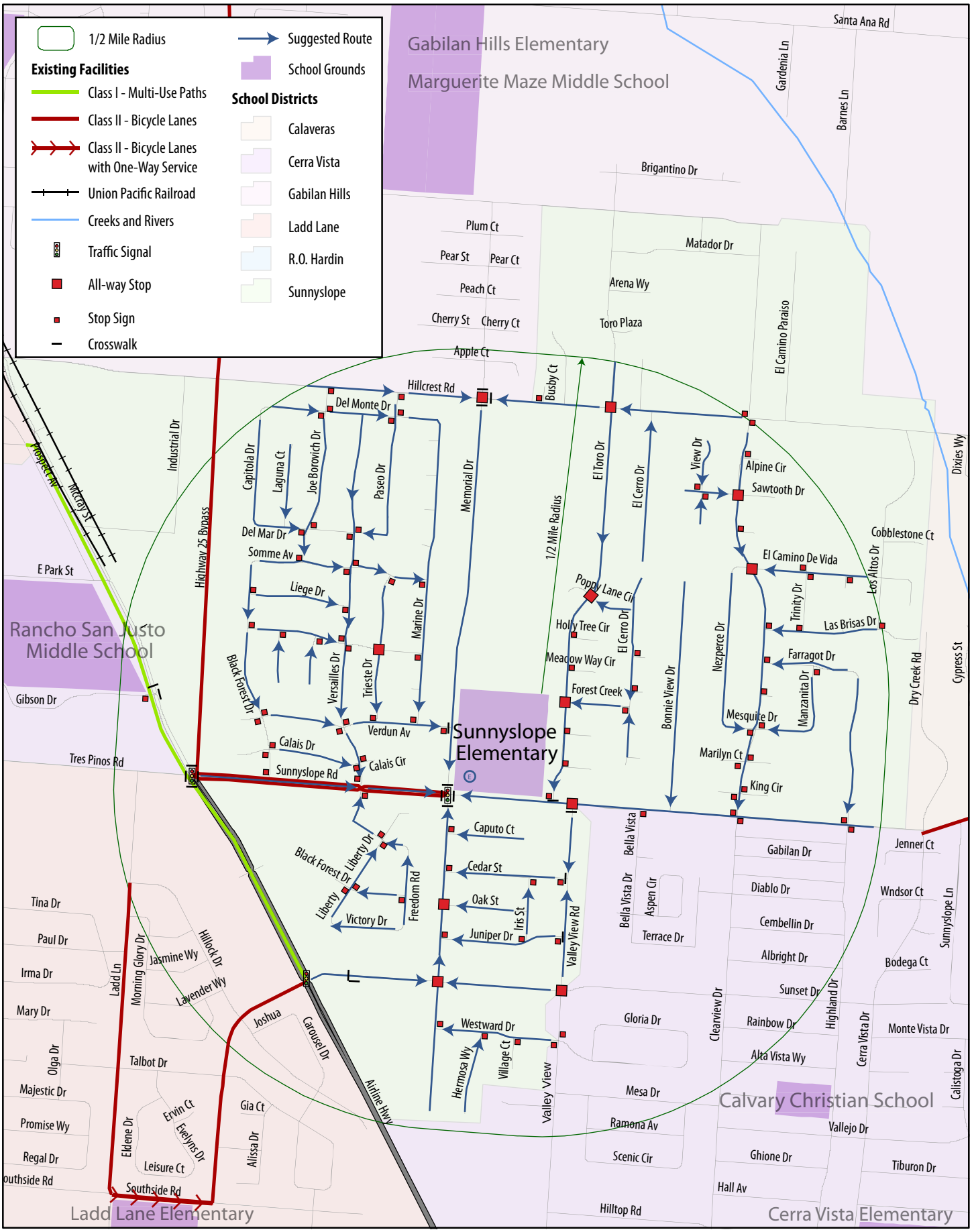


Suggested Routes To School

San Juan Elementary School
San Juan Bautista, CA
Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

alta PLANNING + DESIGN



Suggested Routes To School

Sunnyslope Elementary School
Hollister, CA

Source: Data obtained from San Benito County and ESRI

0 500 1,000 Feet

alta PLANNING + DESIGN

Appendix F. Community Survey

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San Benito County Bikeway and Pedestrian Master Plan Survey

Help us plan for the future of San Benito County! The San Benito County Council of Governments and Alta Planning + Design are working together on a bicycle and pedestrian master plan for San Benito County. Your responses to this survey will help us create a plan that fits the community's needs. Once you have completed the survey, return it no later than October 10, 2008. Your completed survey will be entered into a drawing for a **$100** gift certificate from Target! Please only one survey per person.

1. What area of the County do you live in?

- ○ Hollister
- ○ San Juan Bautista
- ○ Tres Pinos
- ○ San Benito County
- ○ Other (please specify)

_____

2. How many days per week do you ride your bicycle?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7

3. What is the average distance of your bicycle rides? (one-way)

- ○ 0 (I don't bike)
- ○ 1-2 miles
- ○ 3-5 miles
- ○ 6-10 miles
- ○ 11-24 miles
- ○ 25 miles and above

4. Why do you bike? (check all that apply)

- ○ For exercise/health reason
- ○ For pleasure
- ○ For shopping/errands
- ○ To get to work
- ○ To get to school
- ○ To get to transit
- ○ I don't bike
- ○ Other (please specify)

_____

5. What prevents you from biking more often?

- ○ Destinations are too far away
- ○ Too many cars/cars drive too fast
- ○ I have to carry things
- ○ I travel with small children
- ○ No bikeways
- ○ Not enough time
- ○ Insufficient lighting
- ○ Bike routes/roads in poor condition
- ○ Other (please specify)

_____

6. Please rank your preference for bicycle facilities.

	Desirable	Somewhat Desirable	Somewhat Undesirable	Undesirable
Off-street paved bike paths	○	○	○	○
On-street striped bike lanes	○	○	○	○
Unstriped Bike routes	○	○	○	○
Unpaved trails or dirt paths	○	○	○	○

7. Where are your favorite places or routes to bike? Please be specific.

8. Where are the most difficult places for you to bike and why? Where would you ride if you could and what prevents you from riding there?

9. What can be done to encourage you to bicycle more in San Benito County?

- ○ Better lighting
- ○ More bike parking
- ○ More bikeways
- ○ Better connections to civic uses such as parks, libraries, and schools
- ○ Other:

_____

Please continue to next page ➔

San Benito County Bikeway and Pedestrian Master Plan Survey

1. How often do you take walks?

- ○ Daily
- ○ Weekly
- ○ Monthly
- ○ Rarely
- ○ Never

2. When do you typically take walks?

- ○ Not applicable
- ○ Weekday Mornings (7 AM to 10 AM)
- ○ Weekday Mid-Days (10 AM to 4 PM)
- ○ Weekday Evenings (4 PM or later)
- ○ Weekend Mornings (7 AM to 10 AM)
- ○ Weekend Mid-Days (10 AM to 4 PM)
- ○ Weekend Mid-Evenings (4 PM or later)

3. What is the average distance of your walk?

- ○ Under 1 mile
- ○ 1-2 miles
- ○ 2-5 miles
- ○ 6-10 miles
- ○ More than 10 miles

4. Why do you walk? (check all that apply)

- ○ For exercise/health reasons
- ○ Social
- ○ Transportation to/from work
- ○ Transportation to/from school
- ○ Transportation to/from shopping
- ○ Transportation to/from health or social services
- ○ Transportation to/from the transit bus
- ○ Other (please specify)

_____

5. What prevents you from walking more often?

- ○ Concerns about safety
- ○ Sidewalks in poor condition
- ○ Not enough time
- ○ Unreliable weather or darkness
- ○ Lack of sidewalks
- ○ Destinations are too far

6. What types of walking facilities do you use most frequently?

- ○ Sidewalks
- ○ Paved shoulders
- ○ Unpaved shoulders
- ○ Unpaved trails
- ○ Paved off-street walkways
- ○ Local school or community facility (track)
- ○ Other (please specify)

_____

7. Please tell us about your walking experiences in San Benito County.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I can make walking trips where I want	○	○	○	○
I feel safe from cars	○	○	○	○
It is easy to cross the streets	○	○	○	○
There are pedestrian facilities	○	○	○	○

8. Please tell us about specific problem areas or places you avoid as a pedestrian in San Benito County. Indicate the location (intersection or street block) and type of problem:

Thank you for your time!

Send Surveys

Mail: 330 Tres Pinos Road, Suite C-7, Hollister, CA 95023
Fax: 831-636-4160
or Complete Online: *www.SanBenitoCog.org*

To be entered to win $100 gift certificate to Target, please provide the following:

Name: _____ Phone Number/Email Address: _____

2 of 2

Cuestionario de Bicicletas y Peatones

¡Sea parte de planear el futuro del condado de San Benito! El Concilio de Gobiernos de Condado de San Benito y Alta Planning + Design están trabajando juntos en un plan para bicicletas y peatones para la región de San Benito. Sus respuestas en este cuestionario nos ayudarán en crear un plan que queda con las necesidades de la comunidad. Cuando termine con el cuestionario, devuélvelo antes del 10 de Octubre, 2008. ¡Su cuestionario será entrado en un rifa para un certificado de regalo a Target, **de $100**! Por Favor, solo un cuestionario por persona.

1. ¿En que parte de la región vive?

- ○ Hollister
- ○ San Juan Bautista
- ○ Tres Pinos
- ○ Condado de San Benito
- ○ Otro (cual?)

_____

2. ¿Cuantos días a la semana monte su bicicleta?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7

3. ¿Que es la distancia promedio de sus salidas en bicicleta? (solo de ida)

- ○ No Monto Bicicleta
- ○ 1 2 millas
- ○ 3-5 millas
- ○ 6-10 millas
- ○ 11-24 millas
- ○ 25 millas o mas

4. ¿Por que monta en bicicleta? (elija todos que se aplican)

- ○ Para ejercicio/salud
- ○ A gozar
- ○ Para ir de compras
- ○ Para llevarse al trabajo
- ○ Para llevarse a la escuela
- ○ Para llevarse al transito publico
- ○ No uso bicicleta
- ○ Otro (cual?)

_____

5. ¿Que le detiene de salir en bicicleta con mas frecuencia?

- ○ Destinos son demasiado lejos
- ○ Demasiado autos/manejan demasiado rápido
- ○ Tengo que llevar muchas cosas/cosas grandes
- ○ Viajo con niño
- ○ No hay rutas para bici
- ○ No hay tiempo suficiente
- ○ No hay luz suficiente
- ○ Rutas de mala condición
- ○ Otro (cual?) _____

6. Marca su preferencia de rutas de bicicletas

	Deseable	Medio Deseable	Medio indeseable	Indeseable
Rutas de bici, fuera del camino	○	○	○	○
Rutas de bici, al lado del camino	○	○	○	○
Rutas de bici no marcadas	○	○	○	○
Rutas de tierra, sin pavimento	○	○	○	○

7. ¿Donde están sus lugares o rutas favoritos para bicicleta? (Sea especifico!)

8. ¿Donde están los lugares más difíciles de ir en bicicleta, y por que? ¿Donde montaría en bicicleta si pudiera, y que se detiene de hacerlo?

9. ¿Que se puede hacer para promoverle usar bicicletas con mas frecuencia en el Condado de San Benito?

- ○ Mejor iluminacion
- ○ Mas estacionamiento para bicicletas
- ○ Mas rutas, senderos y caminos para bicicletas
- ○ Mejor conexciones a utiles como parques, bibliotecas y escuelas
- ○ Otro (¿Que se puede hacer?)

Por favor, sigue a la próxima pagina ➔

Cuestionario de Bicicletas y Peatones

1. ¿Con que frecuencia viaja a pie?

- ○ Cada día
- ○ Cada semana
- ○ Cada mes
- ○ Poco
- ○ Nunca

2. ¿Cuando viaja a pie, normalmente?

- ○ No aplicable
- ○ Mañanas por la semana (7 AM a 10 AM)
- ○ Medio día por la semana (10 AM a 4 PM)
- ○ Tardes por la semana (4 PM o mas tarde)
- ○ Mañanas por el fin de semana (7 AM a 10 AM)
- ○ Mediodía por el fin de semana (10 AM a 4 PM)
- ○ Tardes por el fin de semana (4 PM o mas tarde)

3. ¿Cuanto miden sus viajes en pie, normalmente?

- ○ Menos que 1 millas
- ○ 1-2 millas
- ○ 2-5 millas
- ○ 6-10 millas
- ○ Mas que 10 millas

4. ¿Porque anda a pie? (elija todos que se aplican)

- ○ Para ejercicio y salud
- ○ Razones social
- ○ Llevarse al trabajo
- ○ Llevarse a la escuela
- ○ Llevarse ir de compras
- ○ Llevarse a servicios social/servicios de salud
- ○ Llevarse a transporte publico
- ○ Otro (sea especifico)

_____

5. ¿Que se detiene de caminar mas?

- ○ Preocupación de seguridad
- ○ Condición de camino
- ○ No hay tiempo suficiente
- ○ Tiempo o Oscuridad
- ○ No hay aceras/banquetas
- ○ Destino esta demasiado lejos

6. ¿Que tipos de facilidades para caminar usa con frecuencia?

- ○ Aceras
- ○ Banquetas de caminos
- ○ Lados no pavimentados de caminos
- ○ Caminos de ruta
- ○ Rutas pavimentados fuera de los caminos
- ○ Pistas en escuela o iglesia local
- ○ Otro (sea especifico)

_____

7. Dinos de su experiencias caminando en el región de San Benito.

	De Acuerdo máximo	De Acuerdo	En Desacuerdo	En Desacuerdo Máximo
Puedo caminar donde quiero	○	○	○	○
Siento seguro alrededor de coches	○	○	○	○
Es fácil cruzar la calle.	○	○	○	○
Hay facilidades para peatones.	○	○	○	○

8. Explica de lugares específicos que son problemáticos en la región de San Benito. Indica la intersección o calle y tipo de problema.

¡Gracias por su tiempo!

Envíe Cuestionarios

Correo: 330 Tres Pinos Road, Suite C-7, Hollister, CA 95023
Fax: 831-636-4160
O en la red: *www.SanBenitoCog.org*

Para que sea considerado para el certificado de regalo a Target, pon su información abajo:

Nombre: _____ # de teléfono/correo electrónico: _____

Appendix G. Environmental Review Checklist

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NOTICE OF INTENT TO APPROVE A MITIGATED NEGATIVE DECLARATION OF ENVIRONMENTAL SIGNIFICANCE and NOTICE OF AVAILABILITY FOR PUBLIC REVIEW

DATE **September 16, 2009**

LEAD AGENCY: Council of San Benito County Governments
330 Tres Pinos Road, Suite C-7
Hollister, CA 95023

PROJECT TITLE: San Benito Bikeways and Pedestrian Master Plan

PROJECT LOCATION: Various locations throughout San Benito County

PROJECT DESCRIPTION:

The San Benito Bikeways and Pedestrian Master Plan is part of San Benito's vision for a more livable and healthy city. The Plan is designed to improve accessibility and mobility throughout the County for bicyclists and pedestrians. By improving transportation for bicyclists and pedestrians, the Council of Governments hopes to enhance the quality of neighborhoods and commercial districts, better the health of its residents, reduce automobile use and thereby improve air quality, and provide access for people who do not use automobiles for transportation.

The Plans describes a bicycle network and pedestrian improvements and bicycle and pedestrian programs. The Plan is a general description of proposed countywide improvements. Individual projects will be fully evaluated and designed as opportunities arise, funding is made available, and citywide priorities are established.

The Plan describes:

(1) An interconnected bikeway network that includes a mix of dedicated bicycle paths, bike lanes, and shared-use bicycle routes.

The proposed bikeways were selected based upon several criteria, including:

a. Public input
b. Connections to schools
c. Connections to major employment centers
d. Gap closure in the existing network
e. Safety
f. Bicycle and Pedestrian Advisory Input

g. Technical Advisory Input
h. Review of existing planning efforts
i. Council of Governments staff input

All the bikeways will be designed according to Caltrans standards for Class I (bicycle path), Class II (bicycle lane), and Class III (shared use bicycle route) standards. See the Summary of Proposed Bikeways Table below.

(2) The proposed pedestrian projects and improvements were selected based upon several criteria including:
a. Public input
b. Bicycle and Pedestrian Advisory Input
c. Technical Advisory Input
d. Review of existing planning efforts
e. Council of Governments staff input

The plan calls for providing an accessible, clear and smooth path of travel for pedestrians through site specific improvements such as installation of sidewalks, installation or improvement of crosswalks and curb ramps, and railroad crossing improvements. Each improvement will be designed in accordance with the Americans with Disability Act.

Draft Initial Environmental Study

1. **Project title:** San Benito Bikeway and Pedestrian Master Plan

2. **Lead Agency name and address:** Council of San Benito County Governments
330 Tres Pinos Road, Suite C-7
Hollister, CA 95023

3. **Contact person and phone number:** Veronica Lezama / 831.637.7665

4. **Project location:** San Benito County

5. **Project sponsor's name and address:** Council of San Benito County Governments
330 Tres Pinos Road, Suite C-7
Hollister, CA 95023

6. **General Plan Designation:** Countywide (varies)

7. **Zoning:** Countywide (varies)

8. **Description of project.** (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.)

   The Council of San Benito County Governments is updating its 2002 Bikeway and Pedestrian Master Plan to comply with the requirements of the State of California's Bicycle Transportation Account. The resulting Bikeway and Pedestrian Master Plan will continue to ensure San Benito's eligibility for funding for bicycle facilities and programs from the State's Bicycle Transportation Account and other bicycle grant programs. The Plan serves as the official policy document addressing the development of facilities and programs to enhance the role of bicycling and walking as a viable and appropriate transportation choice in San Benito County. The Plan calls for the completion of a network of bikeways, pedestrian facilities, and bicycle and pedestrian programs.

   Specific proposed bikeway projects include:

Name	Project ID	From	To	Class	Miles
1st St	S-2	North St	Monterey St	II	0.10
4th St	H-30	Westside Blvd	McCray St	III	0.83
4th St - San Jose St	S-5	4th St	1st St	III	0.16
4th St - The Alameda	S-8	The Alameda	Monterey St	III	0.54
Airline Hwy	U-3, U-4, H-3	Sunset Dr	Quien Sabe Rd	II	4.91
Beverly Dr	H-51	Hillcrest Rd	Sunnyslope Rd	III	0.53
Bicycle and Pedestrian Bridge	H-50	San Juan Rd Bridge	San Juan Rd Bridge	I	0.06

Name	Project ID	From	To	Class	Miles
Bolsa Rd	U-5, H-44	San Felipe Rd	County Line	III	8.63
Bridgevale Rd	U-6, H-4	San Juan Rd	Central Ave	II	0.26
Buena Vista Rd/North Street	H-21	Hollister City Limit East of Millard Rd	Railroad Tracks	II	1.83
Central Ave-3rd St	H-6	Bridgevale Rd	East St	II	1.66
Cerra Vista	H-31	Sunnyslope Rd	Union Rd	III	0.73
Clearview Dr	U-24, H-32	Meridian St	Sunset Dr	III	1.15
Fairview Rd	U-8, U-9, H-7	Airline Hwy	Spring Grove Rd: Spring Grove Elementary School	II	7.05
Fallon Rd	U-25, H-33	Frontage Rd	Fairview Rd	III	2.29
Franklin St	S-6	4th St	End of 4th St/SJB Historical Park	III	0.17
Hawkins St	H-34	Monterey St	Prospect Ave	III	0.45
Hillcrest Rd	U-10, H-8	Prospect Ave	Fairview Rd	II	1.77
Hwy 156	U-11, S-3	The Alameda	Buena Vista Rd	II	6.88
Hwy 25	U-36	Quien Sabe Rd	Pinnacles Monument	III	24.50
Ladd Ln	H-9	Tres Pinos Rd	Hillock Dr	II	0.16
Line St	H-10	Nash Rd	Buena Vista Rd	II	1.16
McCray St	H-11	Hillcrest Rd	Santa Ana Rd	II	0.61
Memorial Dr	H-12, H-47	Sunset Dr	Fallon Rd	II	4.22
Meridian St	H-13	Memorial Dr	McCray St	II	0.85
Meridian St	U-27	Memorial Dr	End of Meridian St	III	0.47
Monterey St	H-38	4th St	Nash Rd	III	0.88
Monterey St	S-7	4th St	1st St	III	0.16
Nash Rd/Tres Pinos Rd	U-13, U-14, H-14, H-25	East of San Benito River	Airline Hwy	II	1.43
Planned Road 1	H-46	Fairview Rd	San Felipe Frontage Rd	II	2.04
Planned Road 2	H-48	McCloskey Rd	Flynn Rd (loops North around airport)	II	5.61
Sally St	H-17	3rd St	Nash Rd	III	0.96
San Benito River Trail	U-1, H-1	San Juan Bautista Park	Airline Hwy	I	16.09
San Felipe Class I	H-49	Wright Rd	Flynn Rd	I	0.84
San Felipe Rd	U-16, H-18	Santa Ana Rd	Pacheco Pass Hwy	II	6.61
San Juan Bautista Historical Park	S-1	1st St	Franklin St	I	0.29
San Juan Hwy	U-17, S-4	Old San Juan Hwy	Ahwahnee St	II	2.35
San Juan Rd	U-18, H-20	Hwy 156	Westside Blvd	II	2.28
Santa Ana Rd	U-7, U-19, H-5, H-22	Railroad Tracks	Fairview Rd	III	2.15
Santa Ana Rd/Buena Vista Rd	U-32	Hwy 156	Bend in Buena Vista Rd	III	0.74
Santa Ana Valley Rd	U-31	John Smith Rd	Quien Sabe Rd	III	1.75
Second St	S-9	San Jose St	Monterey St	III	0.14

Name	Project ID	From	To	Class	Miles
South St/Hillcrest Rd	H-35, H-41	Westside Blvd	Hillcrest Rd East of McCray St	III	1.04
Southside	H-23	Sunset Dr	Union Rd	II	0.16
Southside Rd	U-38	Bend in Southside Rd	Pinnacles Community School	I	0.90
Southside School Connection	U-37	San Benito River Trail	Southside School	I	0.68
Steinbeck Drive	H-45	Westside Blvd	Line St	III	0.10
Sunnyslope Rd	H-24	Memorial Dr	Cerra Vista Dr	II	0.70
Sunset Dr	H-42	Cerra Vista Dr	Airline Hwy	III	0.84
The Alameda-Salinas Rd	U-34, S-10	San Juan School	Old Stagecoach Rd	III	0.65
Union Pacific RR	U-2, H-2	3rd St	County Line	I	8.81
Union Rd	U-21,U-22, H-26	Cienega Rd	Fairview Rd	II	1.54
Union Rd	U-35	Hwy 156	Cienega Rd	III	3.83
Valley View Dr	U-23, H-27	Sunset Dr	Union Rd	II	0.52
Westside Blvd	H-28, H-29	Apricot Ln	Jan Ave	II	0.28
Westside Blvd Extension	H-43	Nash Rd	Ladd Ln	II	1.49

Specific proposed pedestrian projects include:

Improvement Type	Street	Jurisdiction
Sidewalk Gap Infill	2nd St	San Juan Bautista
Sidewalk Gap Infill	Buena Vista Rd	Hollister
Sidewalk Gap Infill	Buena Vista Rd	Hollister
Sidewalk Gap Infill	Buena Vista Rd	Hollister
Sidewalk Gap Infill	Graf Rd	Hollister
Sidewalk Gap Infill	Hillcrest Rd	Hollister
Sidewalk Gap Infill	Hillcrest Rd	Hollister
Sidewalk Gap Infill	Ladd Ln	Hollister
Sidewalk Gap Infill	Line St	Hollister
Sidewalk Gap Infill	Santa Ana Rd	Hollister
Sidewalk Gap Infill	San Juan Rd	Hollister
Sidewalk Gap Infill	San Juan Rd	Hollister
Sidewalk Gap Infill	Sunnyslope Rd	Hollister
Signalized Intersection Improvements	Santa Ana Rd and McCray St	Hollister
Signalized Intersection Improvements	San Benito St and 4th St	Hollister
Signalized Intersection Improvements	Sunset Dr and Airline Hwy	Hollister
Signalized Intersection Improvements	San Benito St and Santa Ana Road	Hollister
Unsignalized Intersection Improvements	4th St and Monterey St	Hollister

Improvement Type	Street	Jurisdiction
Unsignalized Intersection Improvements	San Benito St and 6th St	Hollister
Unsignalized Intersection Improvements	San Benito St and 7th St	Hollister
Unsignalized Intersection Improvements	San Benito St and Hawkins St	Hollister
Unsignalized Intersection Improvements	The Alameda adjacent to San Juan School	San Juan Bautista
Unsignalized Intersection Improvements	Path, across Prospect Ave to Hawkins St	Hollister
Unsignalized Intersection Improvements	E Park Ave and Prospect Ave	Hollister
Unsignalized Intersection Improvements	Hillcrest Rd and Prospect Ave and South St	Hollister
Unsignalized Intersection Improvements	Meridian St and Memorial Dr	Hollister
Unsignalized Intersection Improvements	Hillcrest Rd and Memorial Dr	Hollister
Railroad Crossing Improvement	2nd St	Hollister
Railroad Crossing Improvement	3rd St	Hollister
Railroad Crossing Improvement	4th St	Hollister
Railroad Crossing Improvement	East St	Hollister
Railroad Crossing Improvement	North St	Hollister
Railroad Crossing Improvement	Hillcrest Rd	Hollister
Railroad Crossing Improvement	San Benito St	Hollister

9. **Surrounding land uses and setting.** (Briefly describe the project's surroundings.)

   San Benito County is located in California's central coast region at the southern end of the Santa Clara Valley and is topographically bound by two mountain ranges: the Gabilan Range to the west and the Diablo Range to the east. Approximately 77 percent of land within San Benito County is in some form public or private open space. The majority of the open space is in privately held Williamson Act contract land, designated for agricultural, grazing, or other rural uses. Other open space uses include public lands such as national and state parks and public domain lands. San Benito County contains two incorporated cities: Hollister and San Juan Bautista, located in the northern portion of the County.

10. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.)

    Council of San Benito County Governments
    Bicycle Facilities Unit

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology /Soils
☐ Hazards & Hazardous Materials	☒ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☒ Transportation/Traffic
☐ Utilities/Service Systems	☒ Mandatory Findings of Significance	

DETERMINATION. (To be completed by the Lead Agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

Printed Name _____ For _____

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

I. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Explanation:
a., b., c. The visual setting of San Benito County is comprised of a mixture of open space, agricultural, residential, commercial and recreational land uses. The majority of the County is in open space, including grazing, agricultural, and recreational lands. Urban uses are concentrated in the County's two incorporated cities, San Juan Bautista and Hollister. The existing design character of the urbanized areas is predominantly freestanding buildings with varied exteriors and roof forms. Buildings are typically one and two-story structures.

The Master Plan would involve the development of bikeways and pedestrian pathways, bicycle parking, signage, and other improvements. The majority of these projects would take place within previously developed areas of San Juan Bautista and Hollister, along existing roadways. These projects would be placed at grade and well below the elevation of surrounding structures. Accordingly, they would not detract from the character of existing communities.

Some of the contemplated improvements would be located along undeveloped scenic view corridors, notably the proposed San Benito River Trail. The Master Plan would enhance access to such view corridors by providing improved public access in these areas. All structures, such as signage, fencing, bridges, and walls, would be reviewed to ensure that such features are compatible with the surrounding environment. The proposed trails would generally follow the contours of the landscape, and would not involve substantial grading. Where earthwork is necessary for structural support (e.g., on sideslopes), the trail design would be reviewed by the appropriate public works department to ensure that such earthwork is compatible with surrounding topography and landforms.

d. Some proposed bikeway and trail projects could involve the installation of new lighting fixtures, if determined to be necessary for safety and security. Such fixtures would not be considered a substantial new source of lighting. Lighting plans for individual projects would be reviewed by the appropriate planning or public works department to ensure that such fixtures are compatible with the surrounding environment, and do not pose a nuisance to any adjacent residences.

Mitigation Measures:

AE-1. All off-street trails and bikeways shall be designed to retain major natural topographic features, and to minimize the amount of cut and fill.

AE-2. Cut and fill slopes shall be designed not to exceed a vertical height of 10 feet, unless the review authority approves slopes of greater height with benching, terracing, and/or use of retaining walls.

AE-3. Slopes created by grading shall not exceed a ratio of 2:1.

AE-4. All graded areas shall be revegetated with native plants or non-evasive drought resistant vegetation along river trails and undeveloped areas as soon as possible following grading.

AE-5. All bridges, boardwalks, retaining walls, signage, and other structures shall be simple in design and compatible and complementary to the surrounding landscape and topography.

AE-6. Fencing shall be installed only where required for safety purposes, such as along bridges and boardwalks, or in areas where trails extend along steep sideslopes. Fence design shall be compatible with the surrounding environment.

AE-7. Lighting shall be installed only where required for safety and security purposes. All light fixtures shall be downcast with glare shields, and shall be compatible with the surrounding environment.

II. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐

Explanation:

a., b., c. Approximately 62% of the land area of San Benito County is agricultural land that falls under a Williamson Act Contract. The majority of Williamson Act lands (over 90%) are designated as open space, suitable only for grazing and dry farming. A much smaller percentage (less than 10%) of Williamson Act Lands are considered to be prime for crop farming, such as field, grain, fruit, nut, and row crops. Development of bikeways and pedestrian pathways and other programs under the Master Plan would primarily occur within the more urbanized portions of the County, along existing roadways within Hollister and San Juan Bautista. The Plan also envisions rural road projects, including signage and some shoulder widening. These projects would not directly eliminate any substantial agricultural resources in San Benito County, including Williamson Act Lands. Increased bicycle and pedestrian activity associated with the Master Plan would not be expected to conflict with any existing agricultural operations in the County.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Explanation:

a. San Benito County is within the North Central Coast Air Basin, and subject to the 2008 Air Quality Management Plan for Monterey Bay Region (AQMP) of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). By improving bicycle and pedestrian facilities in the County, Master Plan intends to provide opportunities for forms of transportation other than the automobile. These alternative transportation projects would be consistent with the AQMP's goal of reducing motor vehicle traffic and associated air emissions, and would be considered to have a beneficial air quality impact.

b., c., d. Construction of individual projects under the Master Plan would have the potential to result in a temporary increase in fugitive dust (PM10) emissions. Given the relatively small amount of earthwork

required for most bicycle and pedestrian projects, these increases would not be expected to result in substantial PM10 concentrations, but could contribute to a violation of the PM10 standard within the Basin. The implementation of standard dust control measures, as recommended by MBUAPCD, would reduce impacts related to construction dust emissions to a less-than-significant level.

With respect to long-term (operational) emissions, the proposed Master Plan would involve the construction of bicycle and pedestrian facilities that would provide opportunities for non-motorized transportation. These projects would have the potential to reduce motor vehicle emissions, and would be considered to have a beneficial air quality impact.

e. The bicycle and pedestrian facilities and programs proposed in the Master Plan would not create objectionable odors.

Mitigation Measures:

AQ-1 Individual projects developed under the Master Plan shall adhere to all applicable construction dust control measures identified in Figure 8-2 of MBUAPCD's CEQA Guidelines. These include watering all active construction areas, prohibiting grading during periods of high wind, and revegetating all exposed areas as soon as possible after grading.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

IV. BIOLOGICAL RESOURCES

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Explanation:

a., b., c. San Benito County contains a variety of habitat types, including grassland, riparian corridors, chaparral, oak woodland, and wetlands. These habitats are home to a number of special-status plant and animal species, including the California red-legged frog and southwestern pond turtle. The majority of the bicycle and pedestrian projects proposed under the Master Plan would involve improvements to existing roadways and would not affect biological resources. Some of the proposed projects, such as the San Benito River Trail and the San Benito River Bicycle and Pedestrian Bridge, would involve new construction near areas of potential sensitive biological resources. With proper design, such off-street pathways are expected to be compatible with existing habitats, and would not result in significant impacts to sensitive plant or animal species. Prior to trail construction in undeveloped areas, detailed biological surveys will be undertaken to ensure that final trail alignment avoids sensitive habitat areas to the maximum extent feasible, and that project design enhances the existing habitat and provides public access.

d. Development of the majority of the proposed bicycle and pedestrian projects would occur along existing roadways, well away from waterways. Off-street trail improvements proposed along local rivers or streams, such as the San Benito River Trail, would occur outside of the riverbed, and would not interfere with the movement of fish or other aquatic species.

e. The San Benito County Bikeway and Pedestrian Master Plan would comply with all applicable ordinances of the County and cities of San Juan Bautista and Hollister related to tree preservation and vegetation removal.

f. No areas of the County proposed for bikeway or pedestrian trail development are subject to a habitat conservation plan or other natural resources protection plan.

Mitigation Measures:

BIO-1. A detailed biological survey shall be conducted prior to final design of any river trail, or paths near bridges and undeveloped areas unless a current study is available that is acceptable to Federal and State agencies including the US Fish and Wildlife Services and California Department of Fish and Game. Recommendations of the biologist shall be incorporated into the final design plans. If sensitive plant communities, sensitive plant or wildlife species habitat, wetlands, or riparian areas are identified within future trail corridors, final alignments shall be routed to avoid such areas where feasible. Typical setbacks should be

25 feet from the edge of riparian or wetland areas. Any potential disturbance to jurisdictional wetlands, or to sensitive plant or animal species habitat would be subject to applicable regulations of Federal and State agencies, including the U.S. Fish and Wildlife Service and California Department of Fish and Game.

BIO-2. Any wetland areas removed or disturbed as part of the project shall be mitigated by the creation of new habitat at a ratio of 1.5:1. The disturbance and/or removal of wetlands must comply with Federal and State regulations and permitting requirements.

BIO-3 In areas where trails pass through sensitive habitat, interpretive signage shall be posted to educate trail users that they are within an ecologically sensitive area. All pedestrian, bicycle, and equestrian use within such areas shall be confined to trails, and noted so on signage. All pets shall be restrained by a leash at all times within biologically sensitive areas.

BIO-4. In order to avoid the adverse ecological effects associated with non-native species, all landscaping and revegetation shall be done with native plant species near trails, bridge crossings and undeveloped areas. All revegetated areas shall comply with water efficiency ordinances of the applicable agency.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Explanation:
a., b., c., d. San Benito County contains a number of known historic and cultural resources. In general, the projects contemplated under the Master Plan would enhance the existing street and path network, and would not result in the demolition of any historic structures or the disruption of any known historic or archaeological sites. For new pathways constructed in previously undeveloped areas, there is potential for the project to disturb unknown cultural resources.

No unique paleontological resources are known to exist in the areas of the County affected by the Master Plan.

Mitigation Measures:
CUL-1. For projects proposed in previously undeveloped areas, a qualified archaeologist/historian shall review the project plans and, if necessary, conduct a pre-construction survey to determine the potential to

disturb unknown cultural resources. If there is a potential for disturbance to unknown resources, a resource recovery plan shall be developed and a qualified archaeologist present during construction.

CUL-2. If cultural resources are discovered during construction activities, all construction shall be halted within 200 feet of the find, the appropriate public agency notified, and a qualified archaeologist consulted regarding the importance of the find. Any important cultural resources would be subject to the resource recovery program discussed above.

CUL-3. If human remains are discovered during construction, construction activities shall be halted within 200 feet and the County coroner notified.

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

VI. GEOLOGY AND SOILS

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Explanation:
a. San Benito County is an area of high seismic activity. Major active faults in the County include the San Andreas and Hayward/Calaveras fault systems. The proposed Master Plan would involve the construction of at-grade bicycle and pedestrian improvements, support facilities, signs and other similar improvements that would be utilized for commuting, recreation, and utilitarian trips. All bicycle and pedestrian facilities would be constructed in accordance with applicable seismic standards, and would not increase the exposure of users to seismic hazards.

b., c., d. The majority of projects proposed under the Master Plan are improvements to the existing roadway or pathway network, and would not involve substantial construction in undeveloped areas of the County that would pose geologic hazards. The proposed San Benito River Trail would be constructed along the river alignment, in areas that may be subject to landsliding, erosion, or other geologic instability. In instances where contemplated improvements require any excavation, grading, or fill, a geotechnical investigation would be conducted prior to final trail design and the recommendations of the investigation incorporated into the design. Provided that all proposed bikeway and pedestrian improvements conform to local engineering and seismic standards in their, the Plan would not expose users to any geologic hazards.

e. The proposed Master Plan would not involve the use of any septic systems.

Mitigation Measures:
GEO-1 Prior to final design of any off-street bikeways or trails in areas that may require excavation, grading, or cut/fill, a geotechnical/soils study shall be conducted and the recommendations of the geotechnical engineer incorporated into the final design plans. The geotechnical recommendations shall be approved by the appropriate public works department and incorporated into all subsequent construction plans.

GEO-3. All pathways and structural improvements constructed under the Master Plan shall conform to the appropriate seismic engineering standards.

GEO-2. An erosion control plan shall be prepared and implemented for any construction adjacent to the San Benito River or other waterways.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Explanation:
a., b., c. There would be limited use of gasoline, diesel fuel, tar and other similar substances in the construction of the proposed bicycle and pedestrian improvements/facilities. These substances would be used in small amounts and would have to be handled in accord with OSHA standards. Consequently, there is no substantial risk of exposure to hazardous substances that would result from implementation of the Master Plan. Although paints, solvents, cleansers, gasoline, diesel fuel, tar and other hazardous materials may be used during construction of the projects, the quantities of such products are not expected to be large enough to create a potential health hazard.

d. None of the areas proposed for improvements under the Master Plan are known to be designated hazardous materials sites. In the event that hazardous materials are discovered during construction, construction would cease until such materials have been remediated in accordance with state and local requirements. Such standards have been designed to eliminate or minimize to an acceptable level the potential health impacts associated with human exposure to hazardous materials.

e., f. The proposed Master Plan would involve the development of bikeways and pedestrian pathways, for used in commuting, recreation, and utilitarian trips. Such transient use of these facilities would not result in any safety impacts related to a public or private airport.

g. The proposed Master Plan would provide alternative forms of evacuation in the event of an emergency. Consequently, this project would not interfere with the County's emergency response plan and would enhance the County's emergency evacuation plan.

h. The development of the bicycle and pedestrian facilities proposed under the Master Plan would not increase the fire hazard in the area.

VIII. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

VIII. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☒	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☒	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Explanation:
a., f. The Master Plan's proposed projects would likely have a beneficial impact on surface water quality by reducing the number of automobiles traveling within the county. Such a reduction in automobile use would reduce the deposition of rubber and fluids on roadways by automobiles that is ultimately washed into the waterways

b. Adoption of the Master Plan would involve the development of bicycle and pedestrian improvements, and would have no effect on the amount of ground water.

c., d., e. While many of the proposed projects involve new paved surfaces (e.g., bike lanes, bike paths, sidewalks), these surfaces constitute a very small, additional impervious surface, and would not substantially alter absorption rates, runoff or drainage. Adoption of the Master Plan would not result in significant adverse impacts due to drainage and/or surface runoff from development consistent with the plan.

g., h., i. The relatively small amount of new impervious surface developed under the Master Plan would not substantially alter absorption rates, runoff or drainage, and would not contribute to increased flooding. No significant flooding impacts are expected from adoption of the Master Plan. The majority of projects proposed under the Master Plan would be improvements to existing roadways in urbanized areas, and would not subject users to flooding hazards. The proposed San Benito River Trail project would result in the development of a multi-use trail along a waterway that could potentially be subject to flooding during large storm events, particularly in areas where the pathway crosses beneath existing roadways. The trail would generally be constructed outside of flood-prone areas, and final trail design would incorporate features to ensure user safety during flood events. Development of the proposed bikeway and pedestrian improvements would not be expected to alter flood flows. The proposed Bicycle and Pedestrian Bridge over the San Benito river would be designed to ensure user safety during flood events and would not be expected to alter flood flows.

j. None of the areas proposed for development under the Master Plan are subject to seiche, tsunami, or mudflow.

Mitigation Measures:

HYD-1 Prior to completion of final improvement plans for off-street pathways, a registered Civil Engineer shall provide a drainage study with recommendations on appropriate surface run-off collection and discharge features in compliance with applicable agency standards. All subsequent construction plans shall incorporate the recommendations of the drainage study, as approved by the appropriate agency.

HYD-2. The San Benito River Trail shall be developed outside the main flood channel, unless existing natural or man-made constraints necessitate extending the trail through flood-prone areas for short distances (such as beneath an existing roadway overcrossing). Where the trail extends through such areas, a safety plan shall be conducted and the recommendations of the study incorporated into the final trail design, such as trail closure protocols, to ensure the safety of trail users during flooding events.

HYD-3. The Bicycle Pedestrian Bridge over the San Benito River shall be developed to ensure user safety during flood events. A safety study shall be conducted and the recommendations of the study incorporated into the final bridge design to ensure the safety of users during flooding events. events.

IX. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

Explanation:

a. Adoption of the Master Plan would not be expected to disrupt or divide the physical arrangement of an established community. Bicyclists and pedestrians have not historically been a disruptive force in new locations, according to studies conducted by the Rails-To-Trails Conservancy. The majority of all improvements would be located within existing transportation, utility, or open space corridors. Some of the proposed improvements will be located within privately owned property that will require the acquisition of easements. The final alignment of any project would be subject to input from potentially affected property owners. To the extent that a property owner would prefer to see projects aligned in different locations in order to accommodate future development proposals or to address privacy or other issues, the Plan is sufficiently flexible to allow for such an alignment. Consequently, the Plan would not create any divisions between physical development that would detrimentally isolate or impact an existing community or land use.

b. The Plan establishes the long-term vision for bicycle and pedestrian activity in San Benito County. As a general policy document, the Plan is consistent with the environmental plans and policies that other agencies may apply to evaluate specific components of the Plan. In particular, the Plan encourages multi-modal use of public streets and would encourage and support increased bicycle commuter use in ways that are consistent with the goals and plans promulgated by Caltrans and the County. The specific projects and programs proposed by the Plan will be subject to subsequent review and analysis by a variety of public agencies that may have permit jurisdiction over components of the project. Through this permit process, any potential conflicts between the specific design of future improvements and the plans and policies of other agencies (e.g. Caltrans, etc.) will be resolved.

c. Implementation of the proposed Master Plan would not conflict with any habitat conservation plan or natural community plan in effect in San Benito County.

X. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

Explanation:
a., b. San Benito County contains a number of State-designated mineral resource zones, identified in the Environmental Resources and Constraints Inventory. Important resources include sand and gravel, limestone, granite, oil and gas, asbestos, and gypsum. In general, the proposed bicycle and pedestrian facilities would not affect the potential for continued extraction of any mineral resources.

The San Benito River is identified as a principal source of sand and gravel, particularly in the area of Tres Piños Creek. The proposed San Benito River Trail would extend along the river alignment. The Pathway would not disrupt any areas currently utilized for sand or gravel mining. Development of the pathway would not interfere with recharge of sand and gravel in the river from Tres Pinos Creek.

XI. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐

XI. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Explanation:
a., c., d. Construction of projects proposed under the Master Plan could result in short-term noise impacts from construction activity. Projects involving the use of earthmoving or other heavy machinery could result in the temporary exceedance of local noise standards at nearby noise-sensitive land uses, such as residences, schools, hospitals, and churches. The implementation of standard noise control measures would ensure that construction noise impacts are reduced to a less-than-significant level.

No substantial long-term increase in the existing ambient noise environment is expected to result from the Master Plan, because noise levels generated from bicycle and pedestrian use would typically be lower than those generated by automobile use in the community. The noise from day-to-day activities for the proposed projects would typically be limited to people talking, and would not be expected to be noticeable to surrounding residents assuming that the facilities are adequately sited, designed, and buffered.

The majority of proposed projects are exposed to normally acceptable noise levels for outdoor recreation. Therefore the Master Plan would not result in the exposure of people to unacceptable noise levels.

b. The proposed bicycle and pedestrian projects would not result in substantial increases in groundborne noise or vibration.

e., f. The proposed Master Plan would not result in the exposure of persons to excessive noise levels in the vicinity of a public or private airstrip.

Mitigation Measures:
NOI-1. Construction activities associated with the Master Plan would be subject to local noise control ordinances. In general, construction activities would be limited to normal working hours in areas adjacent to noise-sensitive uses such as residences, schools, and churches.

XII. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Explanation:
a. The introduction of additional bicycle or pedestrian facilities would not be expected to substantially alter projected populations. The introduction of additional bicycle and pedestrian facilities would provide transportation alternatives to residents and employees living and working in the County, but would not directly or indirectly induce population growth.

b., c. No existing housing would be displaced by implementation of the proposed Master Plan.

XIII. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒

Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☒	☐

Explanation:
a. Properly designed bicycle and pedestrian improvements typically do not pose substantial public safety concerns in terms of fire or police protection. The appropriate local fire protection agency and law enforcement agency would review individual projects under the Master Plan in the preliminary design/feasibility phase in order to ensure that all necessary safety recommendations have been included in the plans (e.g., emergency access, sight lines, lighting). The proposed facilities are not expected to necessitate a substantial increase in fire or police services over their long-term operation.

The Master Plan would not increase demand for school facilities or park facilities, and is intended to improve access to such facilities by providing viable bicycle and pedestrian connections.

Though the proposed Master Plan contemplates installing additional facilities (e.g. signs, bike paths, bike lanes, etc.), these improvements represent an incrementally small addition to the existing transportation systems in San Benito County. Due to the low intensity, impact, and cost nature of the projects, it would not result in a significant effect on the maintenance costs of the appropriate jurisdictions.

XIV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Explanation:
The projects proposed in the Master Plan will not substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities. Many of the proposed bicycle and pedestrian projects are intended for recreational use, and have the potential to improve access to recreational facilities, thereby enhancing the experience for users of these facilities.

XV. TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Explanation:
a., b. The Master Plan would improve bicycle and pedestrian connections throughout San Benito County so that bicycle and pedestrian use for commuting, running errands and recreating is a viable alternative to automobile use. Consequently, the Master Plan has the potential to reduce vehicle trips.

The Master Plan provides for facilities for bicyclists and pedestrians, thereby reducing the potential conflicts between non-motorized movement and motorized vehicles. All facilities will be designed to maximize safety by adhering to established design and engineering standards. It is not anticipated that the Master Plan would create any potentially significant safety hazards, provided the final designs of projects proposed in the Master Plan account for location specific physical and traffic conditions. The specific layout and design of improvements would account for the potential hazards that can result from improper construction of bicycle improvements and facilities.

Installation of bike lanes and other facilities would not be expected to substantially alter existing lane widths/configurations or reduce the Level of Service on any existing roadway.

e. The proposed Master Plan may result in new trail corridors that are not fully accessible by emergency vehicles. The local law enforcement agency and fire services agency shall be included in the final design process for each individual project to ensure that there are provisions for emergency access.

f. The proposed bikeway and pedestrian projects would not be anticipated to generate a substantial amount of new traffic, and no parking impacts would occur.

g. Implementation of the proposed Master Plan would provide for a number of bicycle and pedestrian facilities and programs intended to promote alternative transportation for commuting, recreation, and utilitarian trips.

Mitigation Measures:
TRA-1. All designated Class I, Class II, and Class III bikeways shall conform to the design standards identified in Chapter 1000 of the Caltrans Highway Design Manual.

TRA-2. A detailed engineering study shall be conducted before completion of the final trail improvement plans to: examine safety improvements based on physical and roadway conditions and factors such as roadway capacity, pedestrian facilities, use types and times of use in the vicinity of proposed improvements and provide recommendations that would minimize safety hazards. All subsequent construction plans shall incorporate the recommendations of the feasibility study.

TRA-3. Prior to issuance of construction permits, appropriate public works department engineering staff, and local law enforcement and fire protection agencies shall review the design plans to ensure that adequate provisions for safety and emergency access have been provided.

XVI. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

XVI. UTILITIES AND SERVICE SYSTEMS

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project' projected demand in addition to the provider' existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project' solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Explanation:
a., b., e. The proposed Master Plan would not result in any substantial increase in sewage generation, and no additional sewage connections would be necessary.

c. The proposed projects would be designed to be integrated into the existing stormwater system, although the expected runoff is expected to be minimal given the small surface area of new paved trails and bikeways.

d. The Master Plan would result in minimal additional water demand, and no additional water treatment or distribution facilities would be required. Proposed projects would utilize contemporary water-conservation technology in all landscaping improvements associated with the Master Plan.

f., g. The Master Plan will not result in the generation of solid waste that would overburden the capacity of the existing or planned solid waste disposal service for the project area.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Explanation:
a., b., c. See specific impacts discussions above.

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