



City of Shasta Lake
***2009 BICYCLE
TRANSPORTATION
PLAN***

A RESOLUTION OF THE CITY OF SHASTA LAKE CITY COUNCIL TO ADOPT THE 2009 BICYCLE TRANSPORTATION PLAN

WHEREAS, The City wishes to improve and encourage bicycle transportation opportunities for Shasta Lake residents; and

WHEREAS, The City wishes to compete for funding to construct the infrastructure and facilities necessary to provide these opportunities; and

WHEREAS, The City teamed with Omni-Means, Ltd. to prepare a Bike Plan that meets all applicable requirements, and provides a framework for providing a safe, efficient, and coordinated transportation environment that encourages bicycling at a reasonable cost.

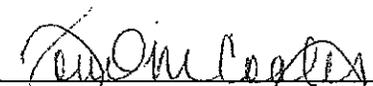
NOW, THEREFORE BE IT RESOLVED THAT the City of Shasta Lake City Council hereby adopts the 2009 Bicycle Transportation Plan.

PASSED, APPROVED, AND ADOPTED this 21st day of July, 2009, by the following vote:

AYES: FARR, HURLHEY, LINDSAY, WATKINS, PALMER
NOES: NONE
ABSENT: NONE


GRACIOUS A. PALMER, Mayor

ATTEST:


TONI M. COATES, City Clerk

RESOLUTION NO. 09-17
APPROVING THE CITY OF SHASTA LAKE'S 2009 BIKEWAY PLAN

WHEREAS, RTPA staff has reviewed the City of Shasta Lake's Bikeway Plan and finds it to be consistent with the statutory requirements of the California Streets and Highway Code; and

WHEREAS, the Shasta Lake City Council adopted the City of Shasta Lake's 2009 Bikeway Plan on July 21, 2009; and

WHEREAS, the plan meets the required elements of Chapter 7, Section 891.2 of the California Streets and Highway Code; and

WHEREAS, the plan is consistent with the Shasta County Regional Transportation Plan (RTP).

NOW, THEREFORE, BE IT RESOLVED that the SCRTPA hereby approves the City of Shasta Lake's 2009 Bikeway Plan.

PASSED AND ADOPTED this 27th day of October, 2009, by the Shasta County Regional Transportation Planning Agency.



Dick Dickerson, Chair
Shasta County Regional
Transportation Planning Agency



2009

BICYCLE

TRANSPORTATION PLAN

Adopted: July, 2009

Prepared By:



330 Hartnell Avenue, Suite B
Redding, California 96002
(530) 242-1700

Table of Contents

	<i>Section</i>	<i>Page</i>
	1. INTRODUCTION	9
	A. Need	9
	B. Background	9
	C. Location and Population	10
	2. BICYCLE TRANSPORTATION PLAN	13
	A. Estimated Number of Bicycle Commuters	13
	B. Land Use	14
	C. Existing and Proposed Bikeways	15
	D. End of Trip Bicycle Parking Facilities	21
	E. Bicycle Transport and Parking Facilities for Connection With Other Transportation Modes	23
	F. Facilities for Changing and Storing Clothes and Equipment	23
	G. Bicycle Safety and Education	26
	H. Citizen and Community Involvement	27
	I. Consistency and Coordination with Other Plans	28
	J. Description of Proposed Bikeway Projects and Priorities	30
	K. Past Expenditures and Future Financial Needs	32
	L. Other Considerations	34
	3. APPENDIX	35



1. Introduction



Image Source: www.pedbikeimages.org - Photographer: Dan Burton



1. Introduction

A. NEED

The City of Shasta Lake prepared this Bicycle Transportation Plan (BTP) in order to provide the long term framework to improve and encourage bicycle transportation in the City. The BTP is prepared in compliance with the California Bicycle Transportation Act (California Streets and Highway Code, Chapter 8, Article 3, Section 891.2). This plan is required for the City of Shasta Lake to be eligible to submit grant applications for the Bicycle Transportation Account funding.

The intent of this plan is to provide the long term framework to improve and encourage bicycle transportation in the City.



B. BACKGROUND

Bicycles have become a significant mode of transportation in towns and cities that have provided bicycle facilities, education and bicycle programs. The increased growth of bicycling can be credited with awareness that bicycling is a viable alternative mode of transportation. Bicycling has the benefit of providing transportation opportunities for citizens that are underserved by existing transportation services; namely children, seniors and those who don't own an automobile.

The City of Shasta Lake General Plan and the Shasta County Regional Transportation Plan (RTP) recognize the need to reduce congestion and to improve air quality, by promoting the use of the bicycle as an alternate means of transportation. The General Plan states a balanced transportation system must serve the needs of bicyclists.



1. Introduction

The City of Shasta Lake's 2009 BTP addresses bicycle facilities, specifically, for the incorporated area of the City of Shasta Lake. In addition, elements of the 2003 Shasta County Bikeway Plan and the 2003 City of Redding Bikeway Plan have been incorporated into this plan in order to ensure coordination between local agencies.

The overall goal and expected benefits of the City of Shasta Lake's BTP is to create a safe, efficient, and coordinated transportation environment that encourages bicycling at a reasonable cost. Other goals of the BTP include specifically identifying proposed infrastructure, the prioritization of desired bicycle facilities, and maximize sources of funding for implementation. The implementation of this plan is intended to improve and encourage bicycle transportation and serve the needs of Shasta Lake area residents.



*The City is south of
Lake Shasta, and is
surrounded by
mountains to the
west, north and
east.*

C. LOCATION AND POPULATION

The City of Shasta Lake is located in central Shasta County, at the northern end of the Sacramento Valley. The City is south of Lake Shasta and is surrounded by mountains to the west, north and east. The City of Redding abuts the southern city limits. The City covers 10.9 square miles, with some relief from numerous foothills. The mean elevation is 790 feet above sea level.

The California Department of Finance (DOF) publishes annual projections on population based on historical growth as seen in previous State Census data. The 2008 population, according to DOF, was 10,279.



2. Bicycle Transportation Plan



2. Bicycle Transportation Plan

This Bicycle Transportation Plan (BTP) is prepared in compliance with the California Bicycle Transportation Act (California Streets and Highway Code, Chapter 8, Article 3, Section 891.2). As stated in the *California Streets and Highway Code, Chapter 8, Article 3, Section 891.2*, a city or county may prepare a bicycle transportation plan, which shall include, but not be limited to, the following elements:

A. Estimated Number of Bicycle Commuters

Section 891.2 (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.



The City of Shasta Lake recognizes the need to reduce congestion, increase circulation and improve air quality.

The City of Shasta Lake General Plan recognizes the need to reduce congestion, increase circulation and improve air quality. One way to achieve this goal is to encourage bicycling for reasons of traffic congestion reduction, energy conservation, air quality, health, economy, enjoyment, and as an alternate means of commuting. With 24% of Shasta County residents considered obese, and overweight residents ranging up to 60%, Shasta Lake City would like to encourage bicycling commuting to promote a healthy environment with easy access to alternative forms of transportation.

According to the Federal Highway Administration, incentives motivating bicycle usage are exercise, enjoyment, traffic and environmental concerns. Personal reasons people give for choosing not to bicycle include: distance, safety, convenience, time, physical condition, family circumstances, habits, attitudes, lack of access and linkage, and transportation alternatives.

The national average for bicycle commuters is 0.44 percent, while the California average is 0.81 percent, according to the 2000 Census. Per the 2001 California Budget Act report: “California Blue Print for Bicycling and Walking”, the State has a goal of increasing bicycling and walking trips by 50% by 2010. According to the Shasta County Bike-way Plan only 0.38 percent of County residents commute to work by riding a bicycle. Using the Shasta county numbers, it is estimated that there are approximately 39 bicycle commuters in the Shasta Lake area.



2. Bicycle Transportation Plan

In addition to work related bicycle commuting, school age students make up an important part of the City's bicycle commuters.

As an indicator of the student bicycle commuting, a poll of the students and parents at Shasta Lake Middle School was conducted in the 2008-2009 school year by the school in partnership with the City of Shasta Lake. Using the format and materials from the National Safe Routes to Schools, 800 surveys were distributed, 362 responded. The average number of students that biked to school was 6.5, or 1.8% of the student body. Of the parents who responded to the survey, 30.6% said that sidewalks and paths is an issue that affects their decision on whether to allow their children to bike or walk to school. The survey goes on to show that 31.6% of parents would change their decision on allowing their children to bike or walk if changes or improvements were made on sidewalks or paths to school.



At Shasta Lake Middle School the average number of students that biked to school in 2008-2009 was 1.8% of the student body.

In another survey of Shasta Lake Middle School parents, conducted by the Shasta County Public Health, indicates their children would be more likely to walk or ride to school if there were more parents/adults walking (49%), no scary dogs (28%), fewer books to carry (26%), slower traffic speeds (22%), added sidewalk or path (21%), or help crossing the street (21%).

Through the continued implementation the bicycle transportation plan and construction of the indicated improvements, the City estimates that the number of bicycle commuters in the Shasta Lake area can more than double by the year 2020.

B. Land Use

Section 891.2 (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.

The City of Shasta Lake contains a mix of land uses including residential, industrial, commercial, and mineral resource. Interstate 5 and the Union Pacific Railroad (U.P.R.R) pass through Shasta Lake City in a north/south



2. Bicycle Transportation Plan

direction. Highway 151 runs through the City in an east/west direction. The industrial zones are concentrated near the railroad tracks on the southwest portion of the City. The commercial zones are primarily located along Highway 151 in the central business district and at the freeway interchanges. Some mineral resource land is situated on the outlying areas north of the City. The remainder of the City is low to high density residential. See **Exhibit A** for a City Zoning map and **Exhibit B** for the City's General Plan map.



A Class 1 Bikeway completely separates the bicycle from automobiles.

C. Existing and Proposed Bikeways

Section 891.2. (c) A map and description of existing and proposed bikeways.

The City of Shasta Lake Bicycle Transportation Plan proposes twenty-seven bikeway segments at various locations throughout the City. See **Exhibit C** for existing and proposed bikeway locations. Bikeways are listed by Class 1, 2 or 3 and are defined as follows:

- “Bikeway” means all facilities that primarily provide for bicycle travel.
- **Class 1 Bikeway (Bike Path).** Provides completely separated path for the exclusive use of bicycles and pedestrians with cross-flow minimized. See Exhibit D in the **Appendix**.
- **Class 2 Bikeway (Bike Lane).** Provides a striped lane for one-way bike travel on a street or highway. See Exhibit(s) E in the **Appendix**.
- **Class 3 Bikeway (Bike Route).** Provides shared use with pedestrians or motor vehicle traffic. See Exhibit F in the **Appendix**.

The City of Shasta Lake currently has:

- 0.3 miles of existing Class 1 Bikeways (with non-standard signing & pavement delineation)
- 5.2 miles of existing Class 2 Bikeways
- 1.6 miles of existing Class 2 Bikeways (with non-standard signing & pavement delineation)
- 0.0 miles of existing Class 3 Bikeways



2. Bicycle Transportation Plan

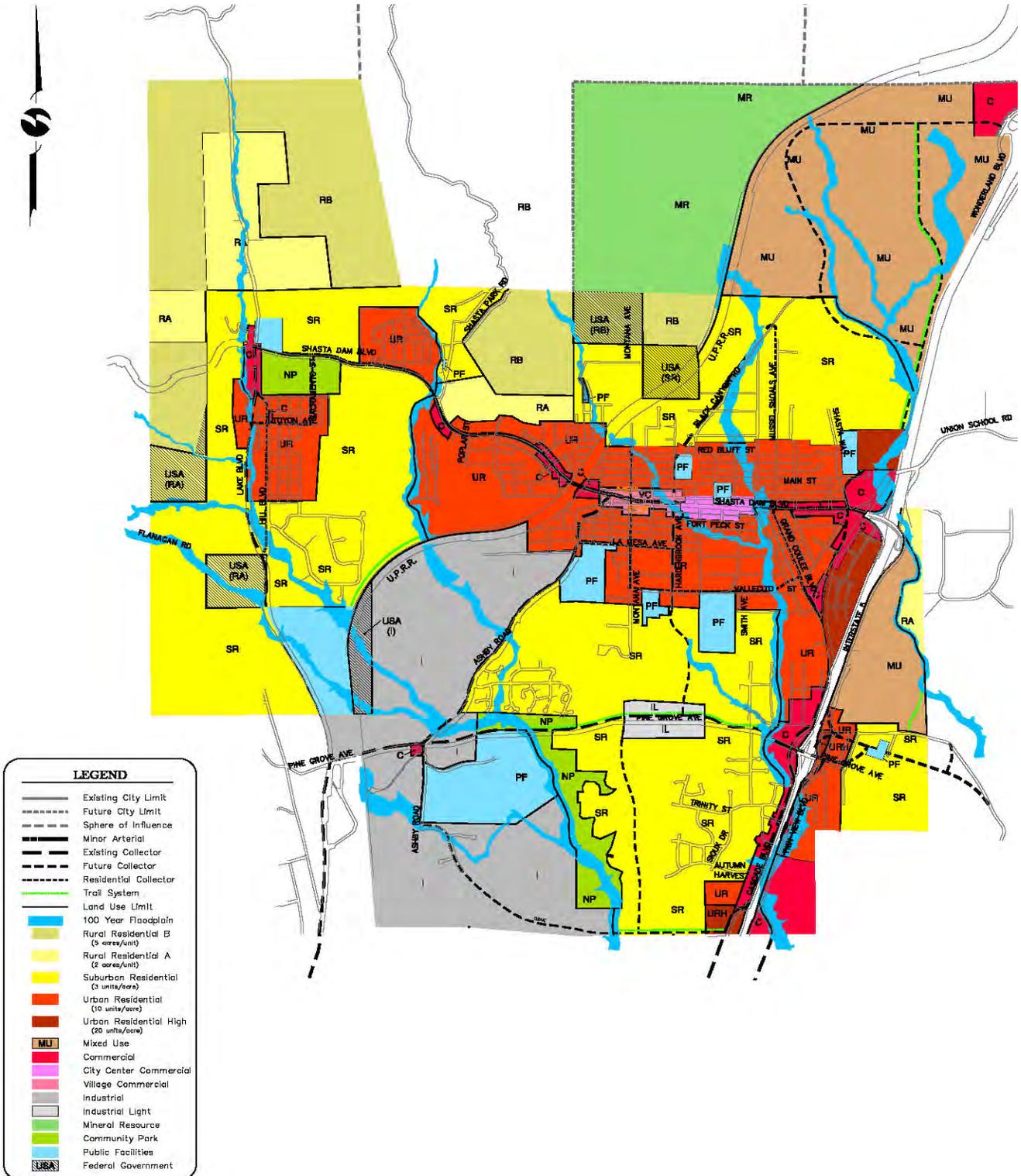
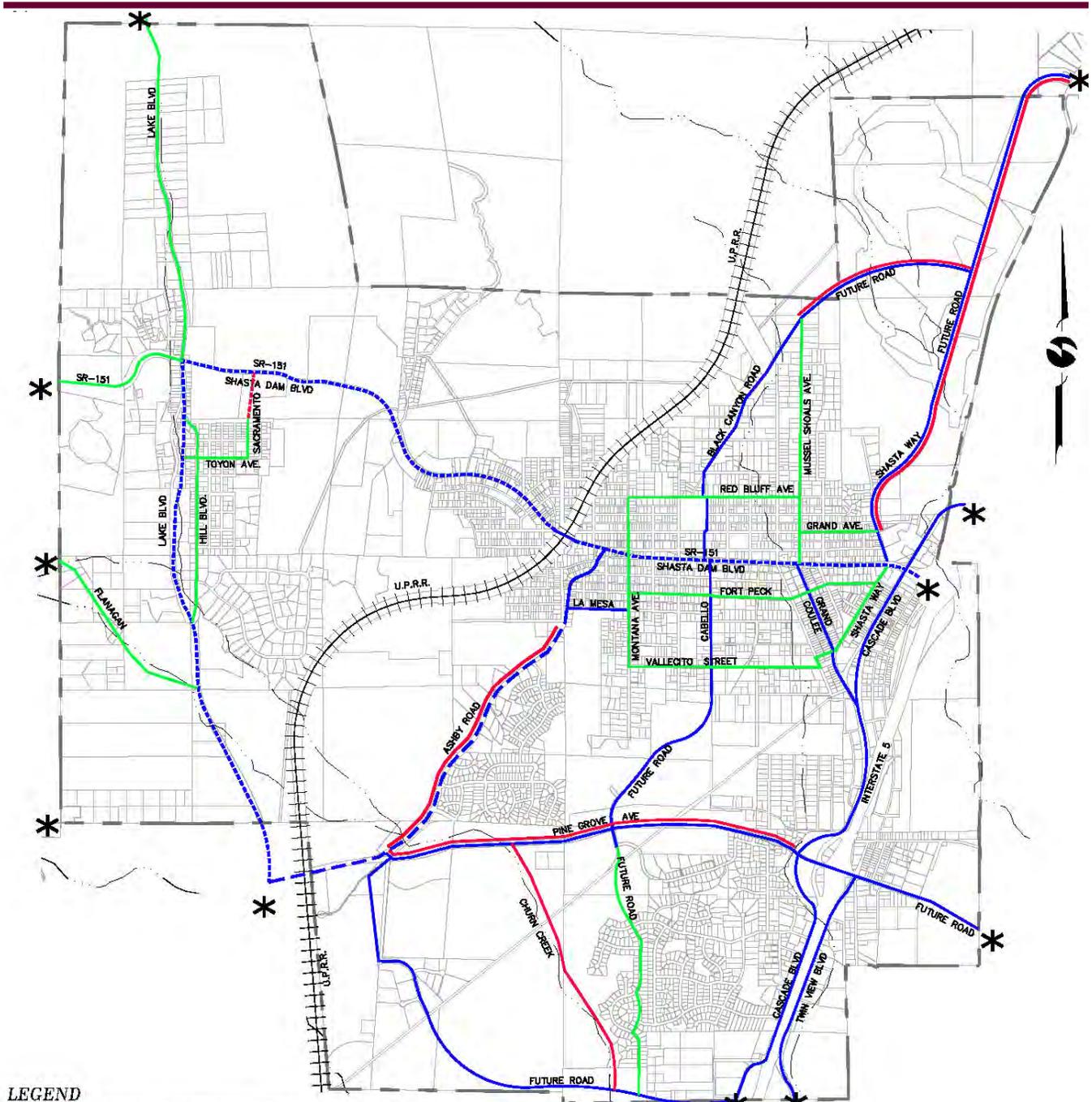


Exhibit B: GENERAL PLAN LAND USE



2. Bicycle Transportation Plan



LEGEND

- EXISTING CLASS 1 BIKEWAY (BIKE PATH WITH NON-STANDARD SIGNING & PAVEMENT DELINEATION)
- EXISTING CLASS 2 BIKEWAY (BIKE LANE)
- EXISTING CLASS 2 BIKEWAY (WITH NON-STANDARD SIGNING & PAVEMENT DELINEATION)
- EXISTING CLASS 3 BIKEWAY (BIKE ROUTE)
- PROPOSED CLASS 1 BIKEWAY (BIKE PATH)
- PROPOSED CLASS 2 BIKEWAY (BIKE LANE)
- PROPOSED CLASS 3 BIKEWAY (BIKE ROUTE)
- SHASTA LAKE CITY LIMIT
- *** CONNECTION WITH SHASTA COUNTY, CITY OF REDDING, AND BLM BIKEWAYS/TRAILS

Exhibit C: EXISTING AND PROPOSED BIKEWAYS EXHIBIT



2. Bicycle Transportation Plan

This Plan proposes to construct:

- 6.2 miles of Class 1 Bikeways
- 13.5 miles of Class 2 Bikeways
- 8.8 miles of Class 3 Bikeways

There are also several miles of trails for off-road cyclists in and around Churn Creek in the south-central portion of the City. Several shallow creek beds along the River that consist of a variety of plants and animal habitats are accessible to the public.

Margaret Polf Park Loop Trail



There are also several miles of trails for off-road cyclists in and around Churn Creek in the south-central portion of the City.

Exhibit G shows the map of the existing paved loop trail and facilities within Margaret Polf Park in Northwest Shasta Lake.

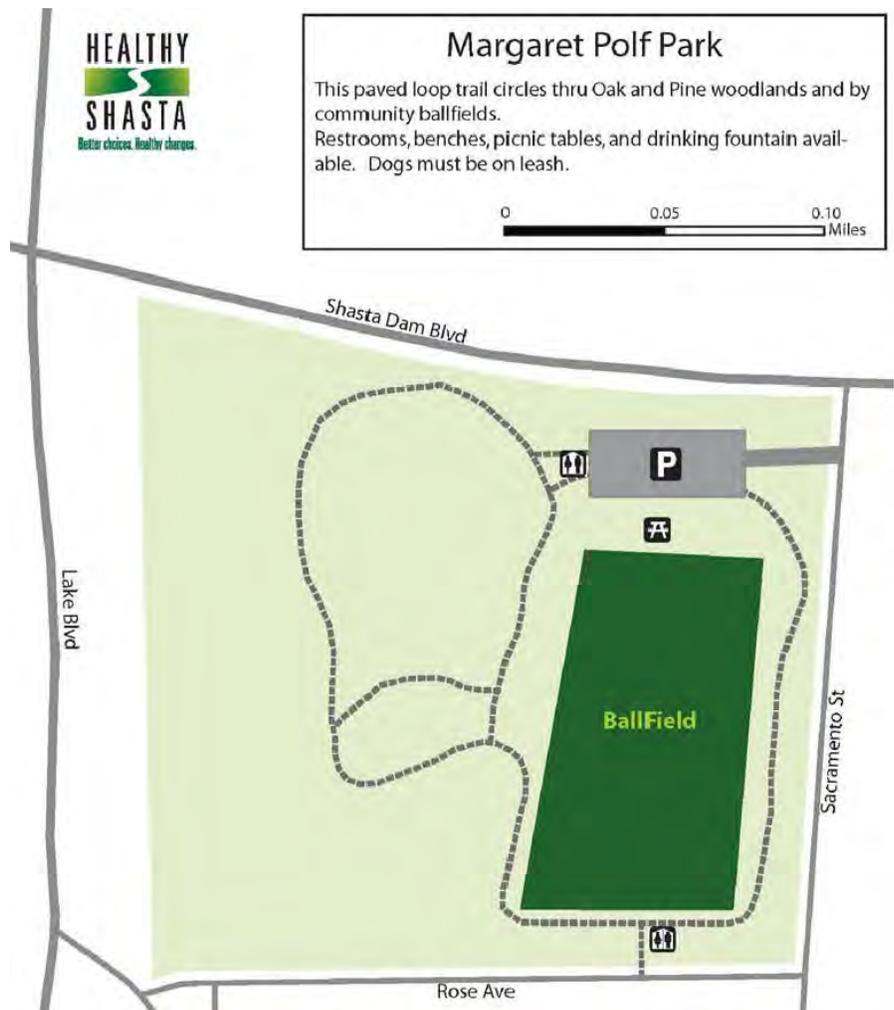
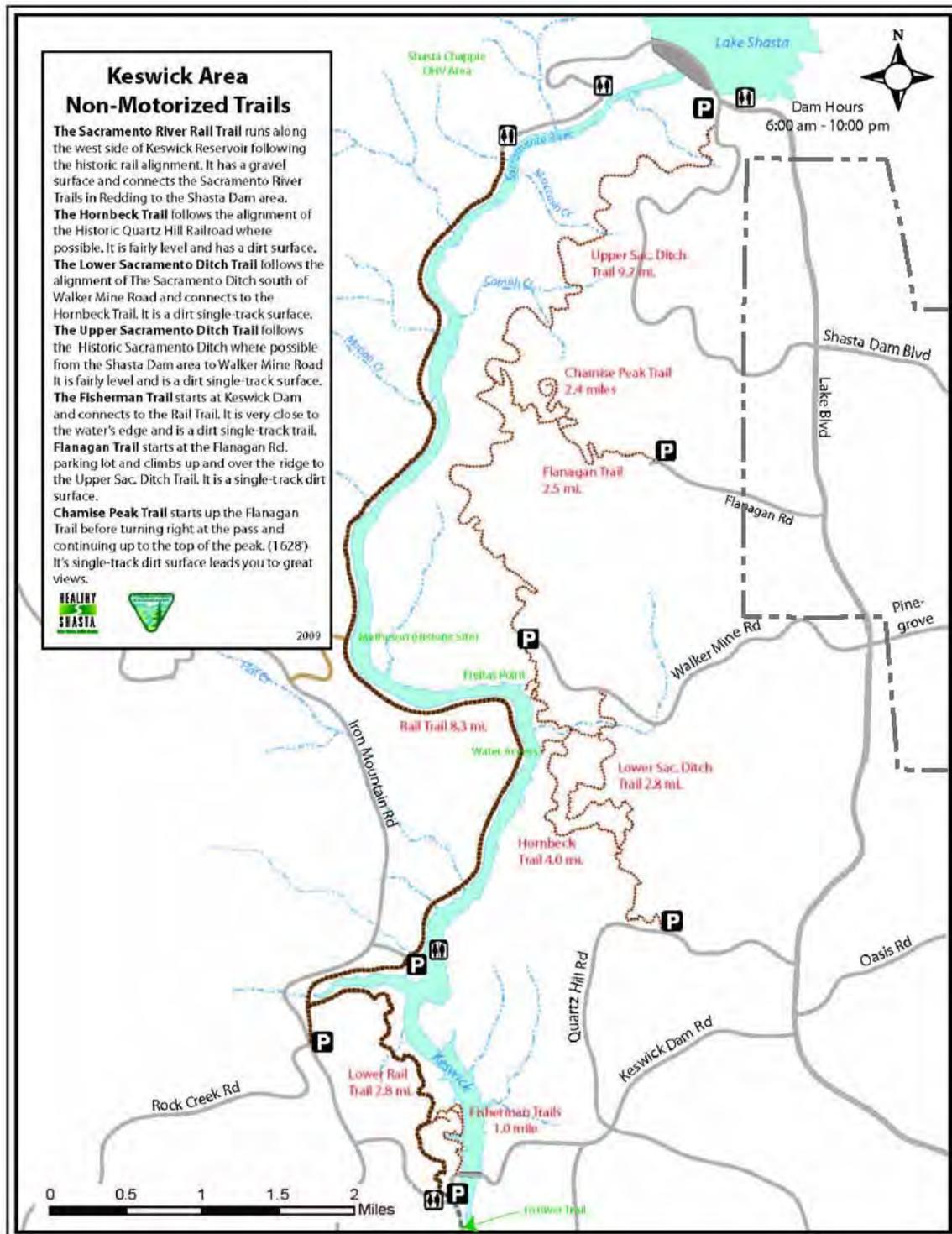


Exhibit G: MARGARET POLF PARK



2. Bicycle Transportation Plan



LEGEND

--- SHASTA LAKE CITY LIMIT

Exhibit H: BLM TRAILS IN KESWICK AREA



2. Bicycle Transportation Plan

The BLM has established numerous non-motorized trails in the Keswick Lake area along the hills of the Sacramento River between Keswick Dam and Shasta Dam. Users can gain access to trails from existing roads within and adjacent to Shasta Lake. **Exhibit H** shows a map of the existing BLM trails and other facilities in the Keswick Area.

The surrounding County and City of Redding offer bicyclists numerous options for enjoyable picturesque bike rides for on or off-road riding. Many of the County's remote roads, near Lake Shasta, offer beautiful rides through oak or pine forests, often with views of distant snow covered mountains. This plan recognizes the importance of providing links to the other bikeways to provide connectivity for bike commuter and access for recreational riding.



Bike racks are located at some public buildings, schools, parks, and large employers throughout the Shasta Lake area.

Exhibit C (page 18) shows the existing and proposed bikeways in the City of Shasta Lake and the proposed connections to Shasta County and City of Redding bikeway corridors.

The proposed bikeways should help create a more bicycle-friendly climate and would likely increase the number of commuter and recreational bicyclists. With more routes and bicycle corridors in the City of Shasta Lake, City of Redding, and Shasta County, bicyclists would be more likely to ride their bicycles from their homes to work, school and recreational destinations rather than driving their automobiles.

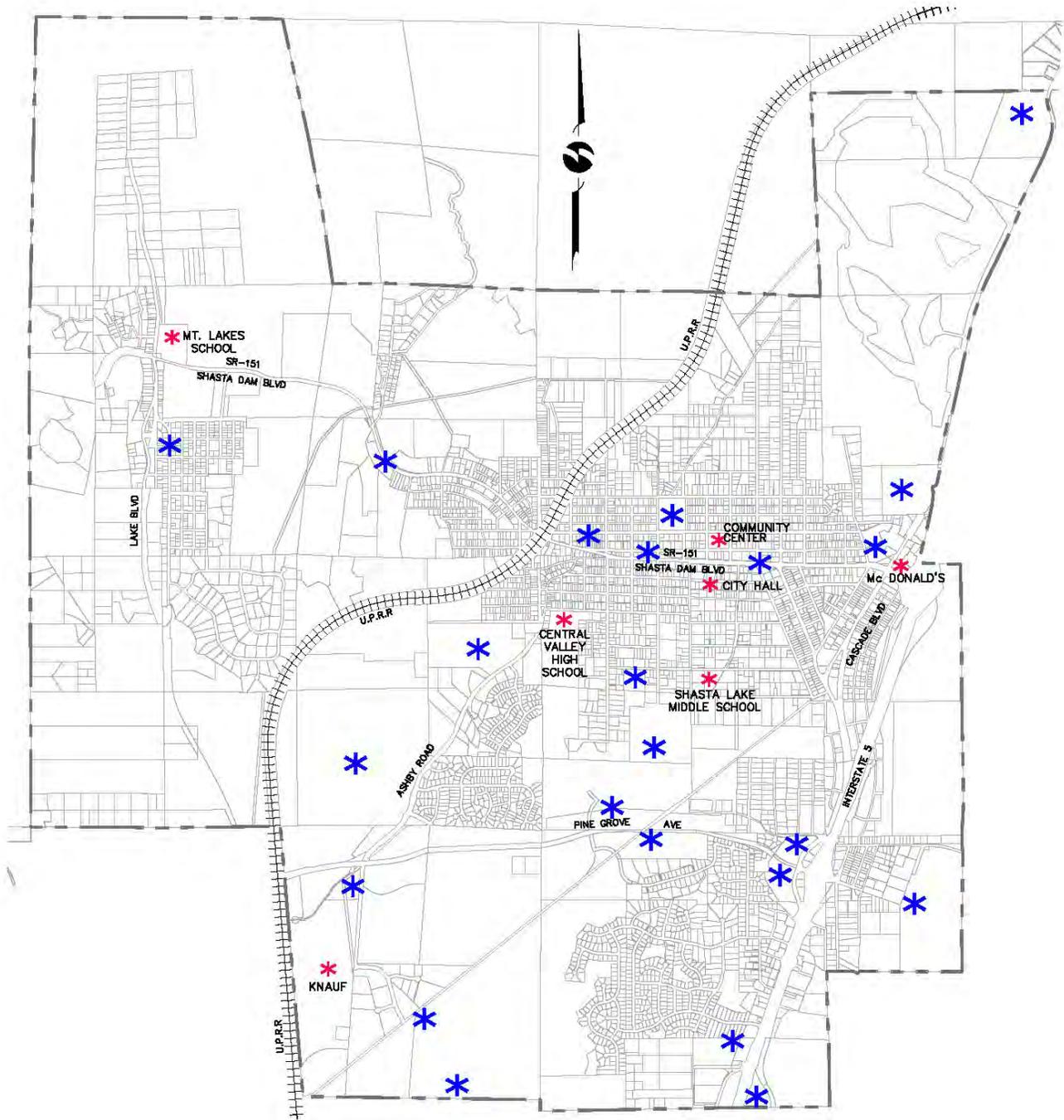
D. End of Trip Bicycle Parking Facilities

Section 891.2 (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.

Bike racks are located at some public buildings, schools, parks, and large employers throughout the Shasta Lake area. Employers are also encouraged to install bicycle parking facilities and to encourage use of the bicycles as alternate transportation. **Exhibit I** identifies known locations with bike parking facilities and proposed future bike parking facilities.



2. Bicycle Transportation Plan



LEGEND

- SHASTA LAKE CITY LIMIT
- * EXISTING BICYCLE PARKING FACILITY
- * PROPOSED BICYCLE PARKING FACILITY

Exhibit I: EXISTING AND PROPOSED BIKE PARKING FACILITIES



2. Bicycle Transportation Plan

E. Bicycle Transport and Parking Facilities for Connection With Other Transportation Modes

Section 891.2. (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.



The Redding Area Bus Authority (RABA) provides transit service for the City of Shasta Lake, with buses that are equipped with bike racks.

The Redding Area Bus Authority (RABA) provides transit service for the City of Shasta Lake, with buses that are equipped with bike racks. **Exhibit J** identifies the existing and possible future bus stop locations in the City of Shasta Lake. There are currently no Park and Ride lots, ferry docks, or rail and transit terminals in the City of Shasta Lake where a bicyclist could connect to another mode of transportation.

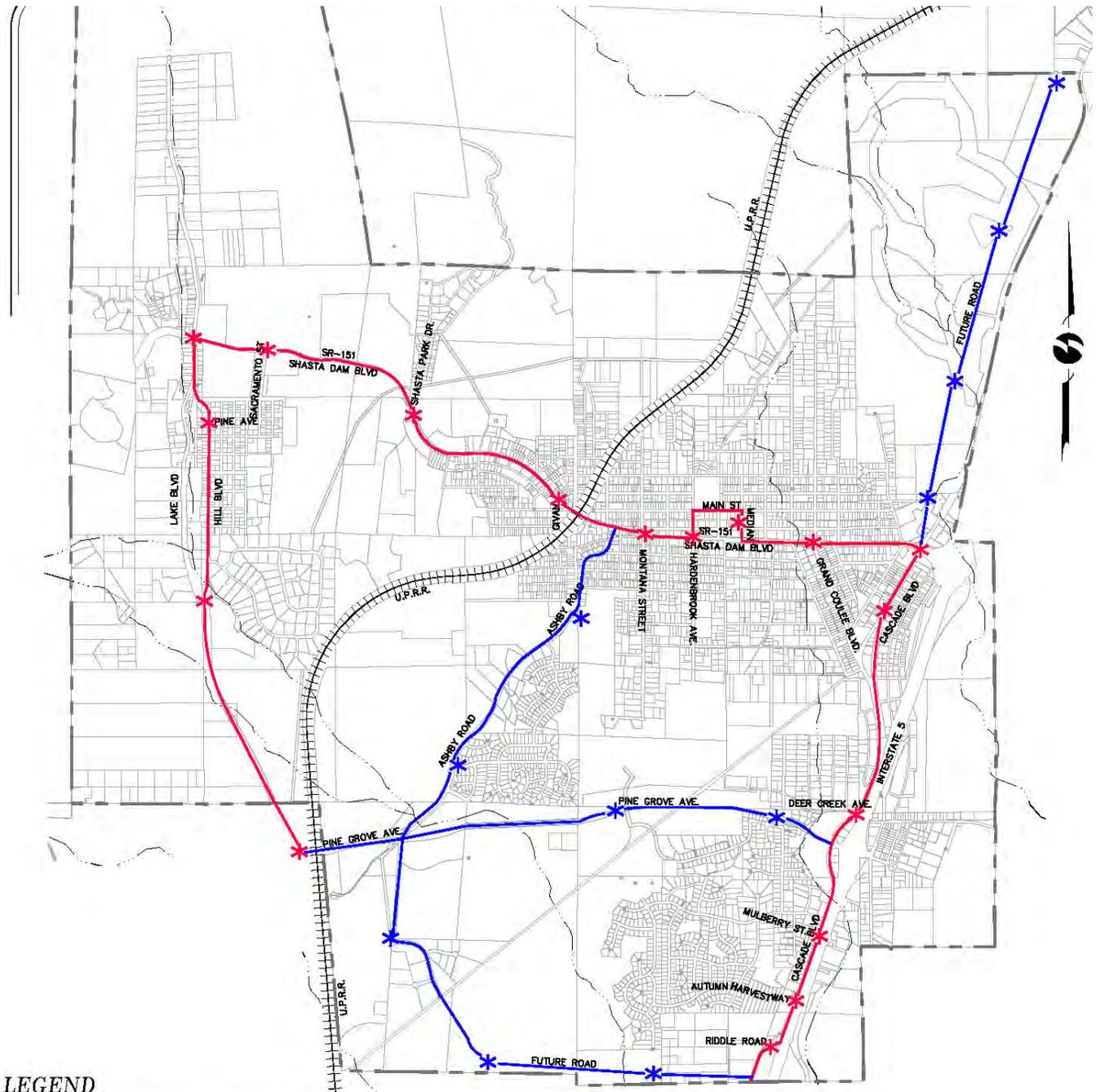
F. Facilities for Changing / Storing Clothes and Equipment

California Streets and Highway Code, Chapter 8, Article 3, Section 891.2 (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.

Employers are encouraged to install bicycle parking facilities with lockers and shower facilities to encourage use of the bicycle as alternate transportation. **Exhibit K** identifies the known locations of businesses with shower or locker facilities and identifies possible future locations for shower and locker facilities.



2. Bicycle Transportation Plan



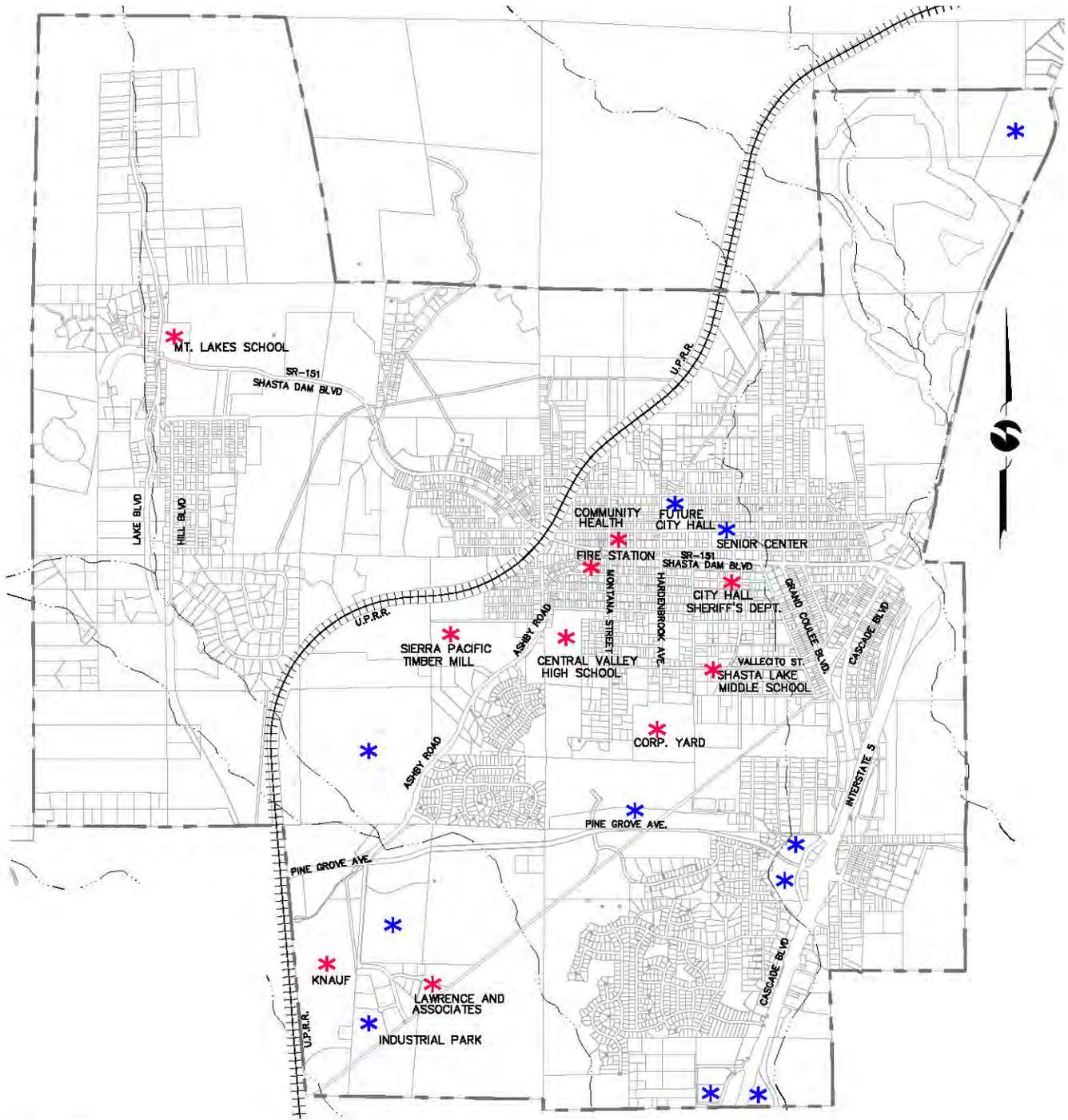
LEGEND

- EXISTING TRANSIT ROUTES VIA REDDING AREA BUS AUTHORITY (RABA)
- FUTURE CONCEPTUAL TRANSIT ROUTES VIA REDDING AREA BUS AUTHORITY (RABA)
- - - SHASTA LAKE CITY LIMIT
- * EXISTING TRANSIT (RABA) STOPS
- * PROPOSED TRANSIT (RABA) STOPS

Exhibit J: EXISTING AND PROPOSED TRANSIT ROUTES AND STOPS



2. Bicycle Transportation Plan



LEGEND

- SHASTA LAKE CITY LIMIT
- * EXISTING FACILITY
- * PROPOSED FACILITY

NOTE: INCLUDES LOCKERS, RESTROOMS & SHOWER FACILITIES

Exhibit K: EXISTING AND PROPOSED CLOTHES/CHANGING FACILITIES



2. Bicycle Transportation Plan

G. Bicycle Safety and Education

Section 891.2 (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 operating to bicycle operation, and the resulting effect on accidents involving bicyclists.



Image Source: www.pedbikeimages.org - Photographer: Dan Burton

The City of Shasta Lake Parks and Recreation Department promotes bicycle safety and partners on bicycle safety awareness events.

There were 25 bicycle accidents reported in the City of Shasta Lake between January 1, 1998 and December 31, 2008 according to the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS). Twenty involved injuries, but there were no fatalities during this time frame. Table 1 shows the accident distribution by year. The statistics show an increase in accidents since the BTP was first adopted in 1999 and support the need for the City of Shasta Lake to continue to promote bicycling safety and support projects that will minimize cyclist/motorist conflicts.

YEAR	ACCIDENTS	DEATHS	INJURY
2008	8	0	7
2007	0	0	0
2006	0	0	0
2005	2	0	0
2004	4	0	3
2003	2	0	2
2002	3	0	2
2001	2	0	2
2000	1	0	1
1999	2	0	2
1998	1	0	1
TOTALS	25	0	20

Table 1: Bicycle accident distribution by year

The City of Shasta Lake Parks and Recreation Department promotes bicycle safety and partners on bicycle safety awareness events. The Sheriff's Department, in conjunction with the Shasta County Department of Public Health, gives away bicycle helmets each year to cyclists. Bicyclist awareness and safety is the main focus of these programs and events.



2. Bicycle Transportation Plan

H. Citizen and Community Involvement

Section 891.2 (h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.



Public meetings were held to identify the routes and important designations including work, schools, shopping and recreation sites.

1. The City, in partnership with the Shasta County Public Health Department, surveyed non-motorized facilities in Shasta Lake, mapped those facilities and prepared a Shasta Lake Walks Guide to promote walking and biking. Public meetings were held to identify the routes and important designations including work, schools, shopping and recreation sites. Community volunteers were organized to physically review the routes in the field and record condition and connectivity.
2. The City has ongoing public outreach for the current General Plan update. The City will hold public neighborhood meetings around the City. This information will be integrated into the adopted General Plan.
3. The City held a public workshop on May 11, 2009 at the John Beaudet Community Center. The BTP workshop was scheduled to coincide with the City's "Bike Rodeo" and the California "Bike Commute" week. The purpose of the workshop was to invite interested parties to view the draft bicycle transportation plan, address questions, and welcome their advice and comments to direct city staff in the preparation of the BTP. The public workshop was lightly attended with the following key issues identified by the attendees:
 - Proper signing and striping of bike routes to ensure safety.
 - The addition of more bike routes to connect neighborhoods, schools, parks, and employment centers to Shasta County and Redding bike routes.
4. In addition to the public, this plan has been reviewed by The Nor-Cal Bicycle Partnership, Caltrans and the Shasta County Regional Transportation Planning Agency (RTPA).



2. Bicycle Transportation Plan

I. Consistency and Coordination with Other Plans

Section 891.2 (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.

Consistency and coordination are provided through the integration of non-motorized transportation throughout the elements of the General Plan. There are discussions regarding the encouragement of non-motorized modes of transportation including bicycling through neighborhood design in the Air Quality, Open Space, Parks and Recreation and Circulation Elements. The proposed bicycle routes are also consistent with the Caltrans designated bicycle routes.



The proposed bicycle routes are also consistent with the Caltrans designated bicycle routes.

The City of Shasta Lake Bicycle Transportation Plan is consistent with the following plans:

City of Shasta Lake General Plan

This BTP is consistent with all aspects of the City of Shasta Lake General Plan that addresses a balanced transportation system that not only serves the needs of vehicular traffic but also serves the needs of bicyclists and pedestrians. These issues are contained in the City General Plan Air Quality, Open Space, Parks and Recreation and Circulation Elements.

Numerous bicycle related objectives, policies, and implementation measures have been incorporated in the current General Plan. Below are excerpts from the current General Plan:

Circulation: A balanced transportation system must not only serve the needs of vehicular traffic, but must also serve the needs of bicyclists and pedestrians, in particular, school children.

Objective C-1: Promote alternative travel modes, including transit, pedestrian, bicycle circulation systems and Transportation Demand Management (TDM) programs.

Policy C-f: Encourage bicycle and pedestrian transportation, both on and off streets.



2. Bicycle Transportation Plan

Policy C-i: Coordinate transportation planning and implementation with regional and local plans.

Implementation Measure: C-(21): Either individually, or in coordination with the, pursue ISTEA and other funding sources for new bikeways, road construction and improvements, to the extent possible under federal and state law.



Encouraging people to ride bikes can help to improve air quality.

Air Quality: The City of Shasta Lake Air Quality Element of the General Plan was adopted on October 17, 1995 and was not revised in the most current General Plan. The Air Quality section of the General plan establishes a few policies related to bicycle transportation.

Policy AQ-e: Encourage a reduction in vehicle trips and vehicle miles traveled by encouraging bicycling (among other modes).

Policy AQ-g: Adopt guidelines for developers to encourage and promote pedestrian movement, bicycling, and public transit.

Policy AQ-j: Work with the Redding Area Bus Authority (RABA), Caltrans and other agencies to establish multi-modal transfer sites for automobiles, bicycles, pedestrians, and public transit.

Policy AQ-k: The City should develop a bikeway plan to encourage the use of bicycles, where practicable.

Policy AQ-m: Encourage and promote public education regarding air quality, transportation alternatives, and wood burning.

Open Space, Parks & Recreation: It was determined in the General Plan that open space, bike, trail routes, and flood plains needed to be carefully integrated with the existing and proposed land uses. This section also addresses the needs to off-road bicycle recreation opportunities. The Open Space, Parks & Recreation section of the General Plan establishes a policy related to bicycles.

Policy OSR-f: Provide off-road pedestrian and non-motorized bike facilities, where feasible and practicable.



2. Bicycle Transportation Plan

City of Redding General Plan

The City of Redding General Plan is consistent with aspects of the City of Shasta Lake's General Plan that deal with reduction of vehicle miles driven, improving air quality, and conserving energy. These elements are contained in the City General Plan Air Quality and Transportation (Circulation) elements.

Shasta County Regional Transportation Plan

The Shasta County RTP, in Chapter 9, addresses bicycle transportation in its non-motorized section. Encouraging bicycling education and reducing bicycle/auto conflicts are consistent goals of the Regional Transportation Plan and the City of Shasta Lake Bicycle Transportation Plan. This plan promotes planning for bicycle facilities during road construction and improvement projects. This plan is consistent with the Shasta County RTP.

Shasta County Bikeway Plan

The Shasta County Bikeway Plan was adopted in 2003, and contains information on proposed bikeway corridor evaluations and selection, descriptions, support facilities and programs, and plan implementation. The plan also addressed anticipated needs of utilitarian, recreational, and touring bicyclists.



The City of Shasta Lake Bicycle Transportation Plan proposes twenty seven segments at various locations throughout the City.

J. Description of Proposed Bikeway Projects and Priorities

Section 891.2 (j) A description of the projects proposed in the plan and a listing of their priorities for implementation.

The City of Shasta Lake Bicycle Transportation Plan proposes twenty seven segments at various locations throughout the City. See **Exhibit C** (page 18) for proposed bikeway locations. Bikeways are listed by Class 1, 2 or 3 and are defined as follows:

- “Bikeway” means all facilities that provide primarily for bicycle travel.
- **Class 1 Bikeway (Bike Path).** Provides completely separated path for the exclusive use of bicycles and pedestrians with cross-flow



2. Bicycle Transportation Plan

minimized.

- **Class 2 Bikeway (Bike Lane).** Provides a striped lane for one-way bike travel on a street or highway.
- **Class 3 Bikeway (Bike Route).** Provides shared use with pedestrians or motor vehicle traffic.

This Plan proposes to construct 2.6 miles of Class 1 bikeway, 11.9 miles of Class 2 bikeway and 8.8 miles of Class 3 bikeway in the City of Shasta Lake.



A Class II Bikeway is proposed along Pine Grove Avenue.

PRIORITIES

Class 1 Bikeway:

1. Pine Grove Avenue
2. Churn Creek Bike Path
3. Ashby Road
4. Black Canyon Road extension through Mt. Gate at Shasta Way Development
5. Shasta Way extension through Mt. Gate Development

Class 2 Bikeway:

1. Ashby Road
2. Pine Grove Avenue
3. Highway 151
4. Cascade Blvd
5. La Mesa Avenue

For the following Class 2 bikeway projects, an order of priority has not yet been established:

- Grand Coulee Blvd
- Black Canyon Road
- Shasta Gateway Drive
- Twin View Blvd
- Shasta Way

Class 3 Bikeway:

1. Hill Blvd
2. Lake Blvd (north of Highway 151)
3. Highway 151 (west of Lake Blvd)



2. Bicycle Transportation Plan

For the following Class 3 bikeway projects, an order of priority has not yet been established:

- Toyon Avenue
- Sacramento Street
- Vallecito Street
- Montana Avenue
- Fort Peck Street
- Red Bluff Avenue
- Grand Avenue
- Mussel Shoals Avenue
- Shasta Way

Class II Bikeway along Shasta Dam Boulevard



Class II bikeways provide a separate striped lane on a roadway.

Other Facilities:

1. Flashing Beacon system at U.P.R.R. tunnel
2. “Share the Road” signing (various locations)
3. Bike racks and lockers (various locations)

K. Past Expenditures and Future Financial Needs

Section 891.2.(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.

The City of Shasta Lake has leveraged grants and land development construction to construct the following bicycle facilities:

EXISTING FACILITIES

<u>Location</u>	<u>Approximate Year 2009 Cost</u>
Highway 151 PSP (Oregon St. to Shasta Way)	\$ 650,000
Highway 151 HES 1 & 2 (Hardenbrook to Washington)	\$ 1,500,000
Highway 151 HES 3 (Washington St. to Oregon St.)	\$ 650,000
Vallecito Street Safe Routes to School	\$ 400,000

The City of Shasta Lake will continue to require appropriate land development projects to complete portions of the BTP. In addition, the City will leverage Bicycle Transportation Account, Highway Safety Improvement Program, Transportation Enhancement, and Safe Routes to School grant funds with local funding to secure funding for the following proposed bicycle facilities:



2. Bicycle Transportation Plan

PROPOSED FACILITIES

Location Approximate Year 2009 Cost

Class I Bikeway:

Pine Grove Avenue Bike Path	\$ 1,500,000
Churn Creek Bike Path	\$ 500,000
Ashby Road Bike Path	\$ 1,000,000
Shasta Way extension to Mt. Gate Bike Path	\$ 2,000,000
Black Canyon extension to Shasta Way Bike Path	\$ 500,000

Class II Bikeway:

Ashby Road Bike Lanes	\$ 75,000
Pine Grove Avenue Bike Lanes	\$ 100,000
Highway 151 Bike Lanes	\$ 1,000,000
Cascade Boulevard Bike Lanes	\$ 500,000
La Mesa Avenue Bike Lanes	\$ 250,000
Grand Coulee Blvd Bike Lanes	\$ 100,000
Shasta Gateway Drive Bike Lanes	\$ 10,000
Black Canyon Road Bike Lanes	\$ 500,000
Twin View Blvd. Bike Lanes	\$ 80,000
Shasta Way Bike Lanes	\$ 125,000

Class III Bikeway:

Hill Avenue Bike Route	\$ 80,000
Lake Blvd Bike Route (North of Hwy 151)	\$ 90,000
Hwy 151 Bike Route (West of Lake Blvd.)	\$ 60,000
Sacramento Street Bike Route	\$ 10,000
Toyon Avenue Bike Route	\$ 10,000
Vallecito Street Bike Route	\$ 30,000
Montana Avenue Bike Route	\$ 15,000
Fort Peck Street Bike Route	\$ 40,000
Red Bluff Avenue Bike Route	\$ 25,000
Grand Avenue Bike Route	\$ 15,000
Mussel Shoals Avenue Bike Route	\$ 40,000



2. Bicycle Transportation Plan

Other Facilities:

Flashing Beacon system at U.P.R.R. tunnel	\$ 50,000
“Share the Road” signing (various locations)	\$ 10,000
Bike racks and lockers (various locations)	\$ 25,000

L. OTHER CONSIDERATIONS

The public workshop provided a collaborative for the community to provide input on the BTP. While most of the comments received have been implemented in the plan, others have been included in this section for future consideration:

- Addition of a future Class I bike path along the U.P.R.R. corridor within the City Limits.
- Wider bike lane construction standards for future public streets.
- Need for long-term maintenance program of existing signing, striping and other bike facilities.



3. Appendix



Image Source: www.pedbikeimages.org - Photographer: Dan Burton

3. Appendix

FULL TEXT OF STREETS AND HIGHWAYS CODE, SECTION 890-894.2

890. It is the intent of the Legislature, in enacting this article, to establish a bicycle transportation system. It is the further intent of the Legislature that this transportation system shall be designed and developed to achieve the functional commuting needs of the employee, student, business person, and shopper as the foremost consideration in route selection, to have the physical safety of the bicyclist and bicyclist's property as a major planning component, and to have the capacity to accommodate bicyclists of all ages and skills.

890.2. As used in this chapter, "bicycle" means a device upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having either two or three wheels in a tandem or tricycle arrangement.

890.3. As used in this article, "bicycle commuter" means a person making a trip by bicycle primarily for transportation purposes, including, but not limited to, travel to work, school, shopping, or other destination that is a center of activity, and does not include a trip by bicycle primarily for physical exercise or recreation without such a destination.

890.4. As used in this article, "bikeway" means all facilities that provide primarily for bicycle travel. For purposes of this article, bikeways shall be categorized as follows:

(a) Class I bikeways, such as a "bike path," which provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with cross flows by motorists minimized.

(b) Class II bikeways, such as a "bike lane," which provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross flows by pedestrians and motorists permitted.

(c) Class III bikeways, such as an on-street or off-street "bike route," which provide a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.

890.6. The department, in cooperation with county and city governments, shall establish minimum safety design criteria for the planning and construction of bikeways and roadways where bicycle travel is permitted. The criteria shall include, but not be limited to, the design speed of the facility, minimum widths and clearances, grade, radius of curvature, pavement surface, actuation of automatic



3. Appendix

traffic control devices, drainage, and general safety. The criteria shall be updated biennially, or more often, as needed.

890.8. The department shall establish uniform specifications and symbols for signs, markers, and traffic control devices to designate bikeways, regulate traffic, improve safety and convenience for bicyclists, and alert pedestrians and motorists of the presence of bicyclists on bikeways and on roadways where bicycle travel is permitted.

891. All city, county, regional, and other local agencies responsible for the development or operation of bikeways or roadways where bicycle travel is permitted shall utilize all minimum safety design criteria and uniform specifications and symbols for signs, markers, and traffic control devices established pursuant to Sections 890.6 and 890.8.

891.2. A city or county may prepare a bicycle transportation plan, which shall include, but not be limited to, the following elements:

(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.

(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.

(c) A map and description of existing and proposed bikeways.

(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.

(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.

(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.

(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



3. Appendix

accidents involving bicyclists.

(h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.

(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.

(j) A description of the projects proposed in the plan and a listing of their priorities for implementation.

(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.

891.4. (a) A city or county that has prepared a bicycle transportation plan pursuant to Section 891.2 may submit the plan to the county transportation commission or transportation planning agency for approval. The city or county may submit an approved plan to the department in connection with an application for funds for bikeways and related facilities which will implement the plan. If the bicycle transportation plan is prepared, and the facilities are proposed to be constructed, by a local agency other than a city or county, the city or county may submit the plan for approval and apply for funds on behalf of that local agency.

(b) The department may grant funds applied for pursuant to subdivision (a) on a matching basis which provides for the applicant's furnishing of funding for 10 percent of the total cost of constructing the proposed bikeways and related facilities. The funds may be used, where feasible, to apply for and match federal grants or loans.

891.5. The Sacramento Area Council of Governments, pursuant to subdivision (d) of Section 2551, may purchase, operate, and maintain call boxes on class 1 bikeways.

891.8. The governing body of a city, county, or local agency may do all of the following:

(a) Establish bikeways.

(b) Acquire, by gift, purchase, or condemnation, land, real property, easements, or rights-of-way to establish bikeways.

(c) Establish bikeways pursuant to Section 21207 of the Vehicle Code.

892. (a) Rights-of-way established for other purposes by cities, counties, or local agencies shall not be abandoned unless the governing body determines that the rights-of-way or parts thereof are



3. Appendix

not useful as a non-motorized transportation facility.

(b) No state highway right-of-way shall be abandoned until the department first consults with the local agencies having jurisdiction over the areas concerned to determine whether the right-of-way or part thereof could be developed as a non-motorized transportation facility. If an affirmative determination is made, before abandoning the right-of-way, the department shall first make the property available to local agencies for development as non-motorized transportation facilities in accordance with Sections 104.15 and 887.6 of this code and Section 14012 of the Government Code.

892.2. (a) The Bicycle Transportation Account is continued in existence in the State Transportation Fund, and, notwithstanding Section 13340 of the Government Code, the money in the account is continuously appropriated to the department for expenditure for the purposes specified in Section 892.4. Unexpended moneys shall be retained in the account for use in subsequent fiscal years.

(b) Any reference in law or regulation to the Bicycle Lane Account is a reference to the Bicycle Transportation Account.

892.4. The department shall allocate and disburse moneys from the Bicycle Transportation Account according to the following priorities:

(a) To the department, the amounts necessary to administer this article, not to exceed 1 percent of the funds expended per year.

(b) To counties and cities, for bikeways and related facilities, planning, safety and education, in accordance with Section 891.4.

892.5. The Bikeway Account, created in the State Transportation Fund by Chapter 1235 of the Statutes of 1975, is continued in effect, and, notwithstanding Section 13340 of the Government Code, money in the account is hereby continuously appropriated to the department for expenditure for the purposes specified in this chapter. Unexpended money shall be retained in the account for use in subsequent fiscal years.

892.6. The Legislature finds and declares that the construction of bikeways pursuant to this article constitutes a highway purpose under Article XIX of the California Constitution and justifies the expenditure of highway funds therefore.

893. The department shall disburse the money from the Bicycle Transportation Account pursuant to Section 891.4 for projects that improve the safety and convenience of bicycle commuters, including, but not limited to, any of the following:

(a) New bikeways serving major transportation corridors.

(b) New bikeways removing travel barriers to potential bicycle commuters.



3. Appendix

(c) Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings.

(d) Bicycle-carrying facilities on public transit vehicles.

(e) Installation of traffic control devices to improve the safety and efficiency of bicycle travel.

(f) Elimination of hazardous conditions on existing bikeways.

(g) Planning.

(h) Improvement and maintenance of bikeways.

In recommending projects to be funded, due consideration shall be given to the relative cost effectiveness of proposed projects.

893.2. The department shall not finance projects with the money in accounts continued in existence pursuant to this article which could be financed appropriately pursuant to Article 2 (commencing with Section 887), or fully financed with federal financial assistance.

893.4. If available funds are insufficient to finance completely any project whose eligibility is established pursuant to Section 893, the project shall retain its priority for allocations in subsequent fiscal years.

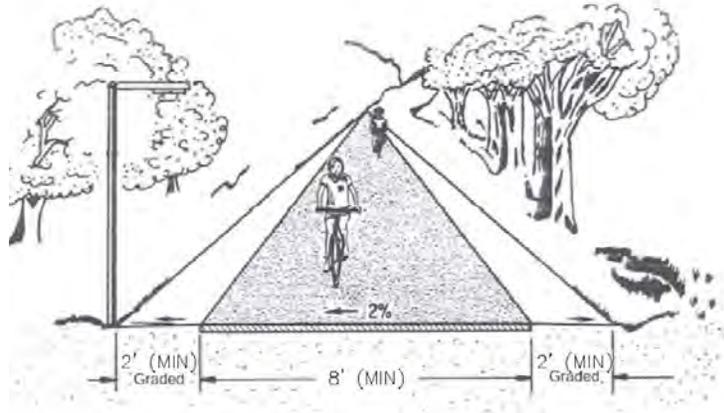
893.6. The department shall make a reasonable effort to disburse funds in general proportion to population. However, no applicant shall receive more than 25 percent of the total amounts transferred to the Bicycle Transportation Account in a single fiscal year.

894. The department may enter into an agreement with any city or county concerning the handling and accounting of the money disbursed pursuant to this article, including, but not limited to, procedures to permit prompt payment for the work accomplished.

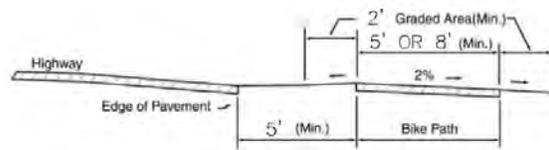
894.2. The department, in cooperation with county and city governments, shall adopt the necessary guidelines for implementing this article.



3. Appendix

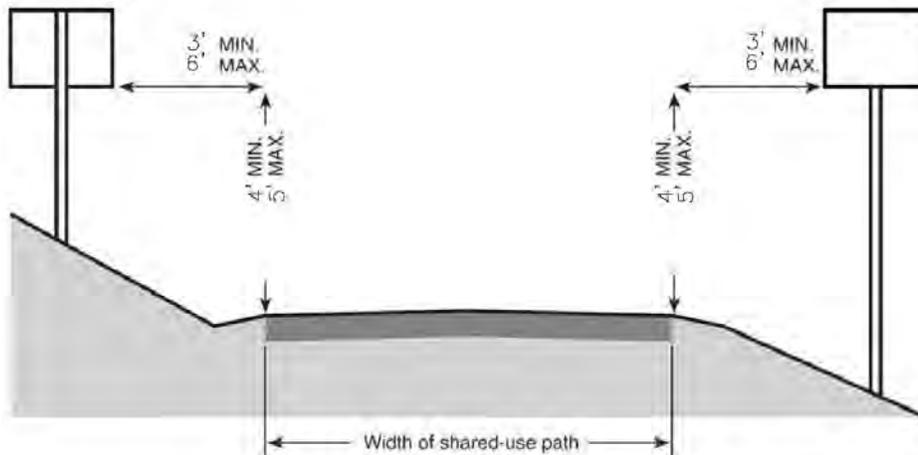


TWO-WAY BIKE/PEDESTRIAN PATH
SOURCE: CALTRANS HIGHWAY DESIGN MANUAL, FIGURE 1003.1A



*One - Way: 5' Minimum Width
Two - Way: 8' Minimum Width

TYPICAL CROSS SECTION OF BIKE/PEDESTRIAN PATH ALONG ROADWAY
SOURCE: CALTRANS HIGHWAY DESIGN MANUAL, FIGURE 1003.1B

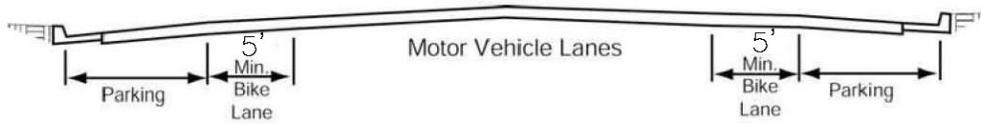


SIGN PLACEMENT ON BIKE/PEDESTRIAN PATHS
SOURCE: CALIFORNIA MUTCD, FIGURE 9B-1

Exhibit D: CLASS 1 BIKEWAY—Pathway and Signage



3. Appendix

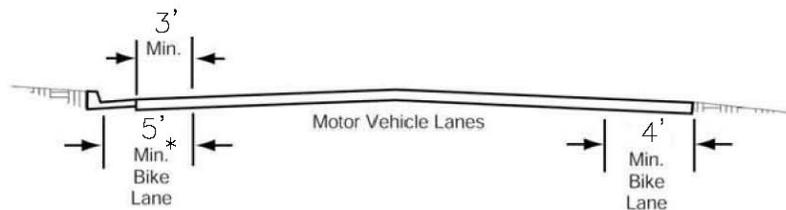


(1) MARKED PARKING



*13' is recommended where there is substantial parking or turnover of parked cars is high (e.g. commercial areas).

(2) PARKING PERMITTED WITHOUT MARKED PARKING OR STALL

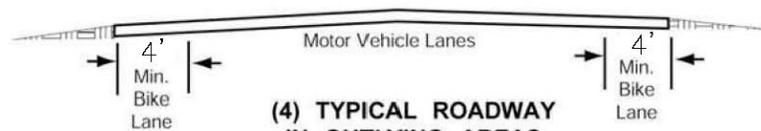


(With Gutter)

(3) PARKING PROHIBITED

(Without Gutter)

*4' MIN. WITH 1' GUTTER WIDTH.



(4) TYPICAL ROADWAY IN OUTLYING AREAS PARKING RESTRICTED

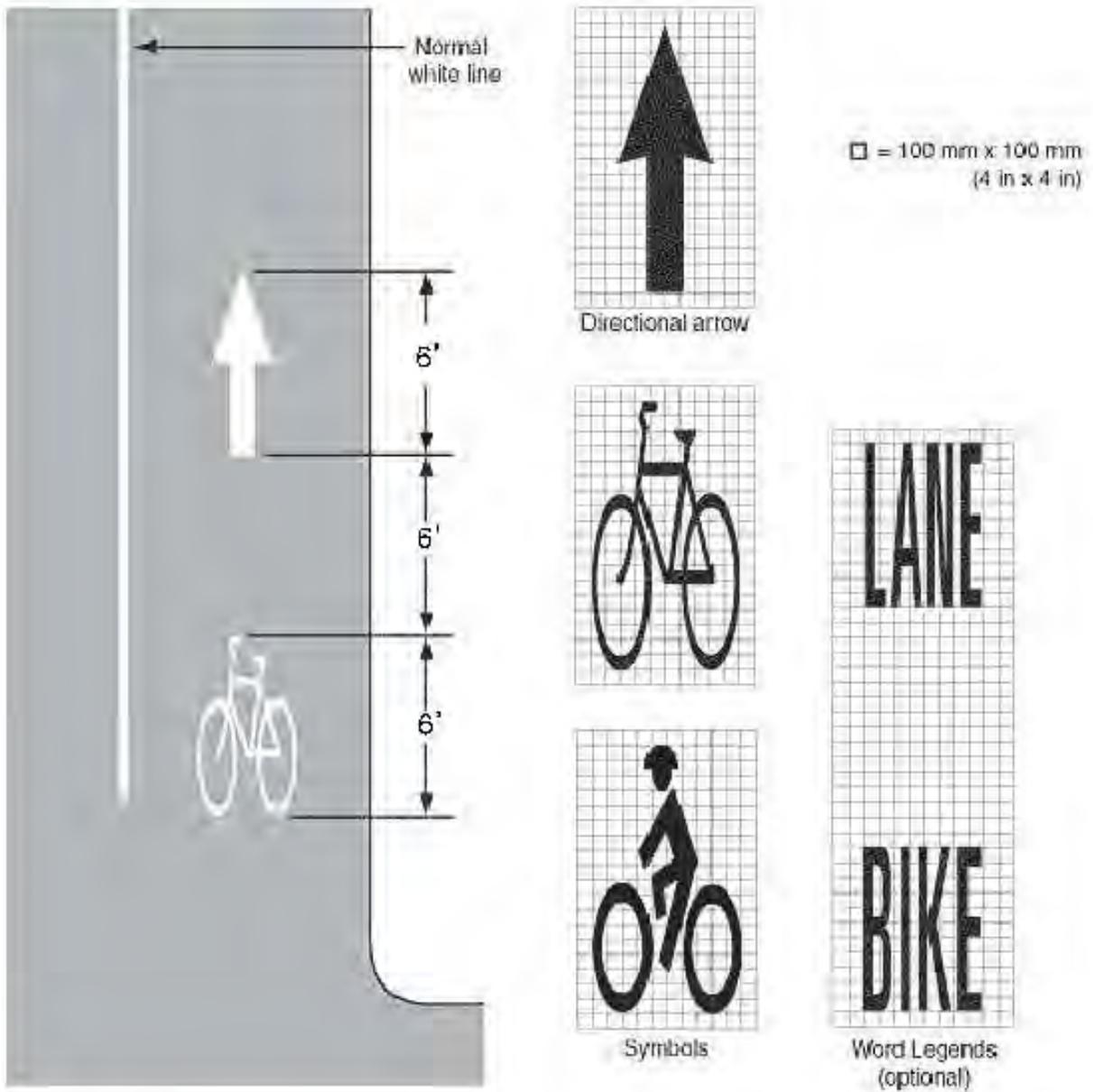
**TYPICAL BIKE LANE CROSS SECTIONS
(ON 2-LANE OR MULTI-LANE ROADWAYS)**

SOURCE: CALTRANS HIGHWAY DESIGN MANUAL, FIGURE 1003.2A

Exhibit E: CLASS 2 BIKEWAY



3. Appendix

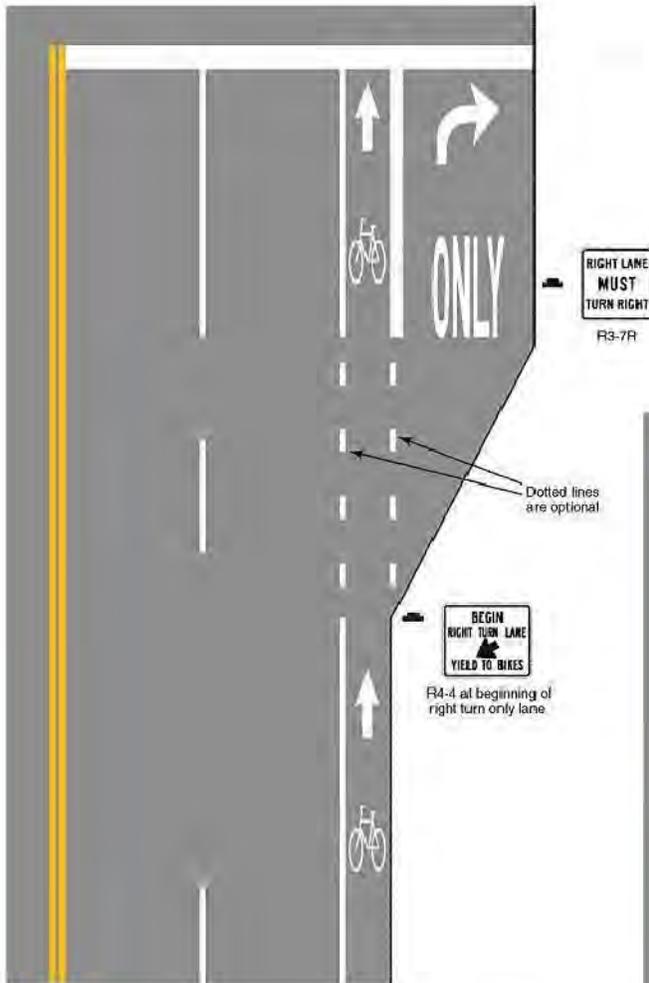


**TYPICAL BIKE LANE PAVEMENT DELINEATION
(ON 2-LANE OR MULTI-LANE ROADWAYS)**
SOURCE: CALIFORNIA MUTCD, FIGURE 8C-6

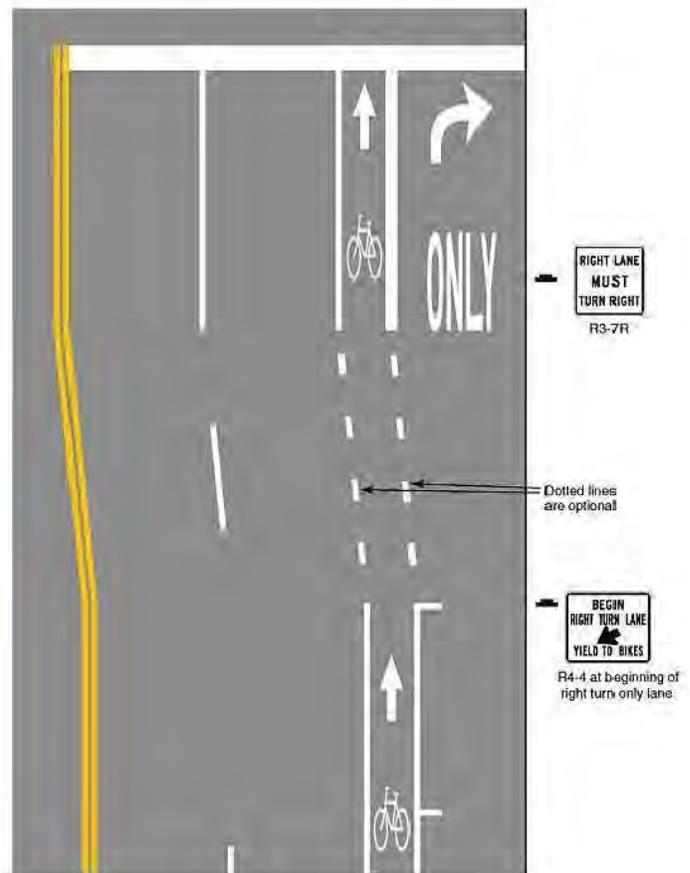
Exhibit E: CLASS 2 BIKEWAY



3. Appendix



TYPICAL BICYCLE LANE TREATMENT AT A RIGHT TURN ONLY LANE (ON 2-LANE OR MULTI-LANE ROADWAYS)
SOURCE: CALIFORNIA MUTCD, FIGURE 9C-3



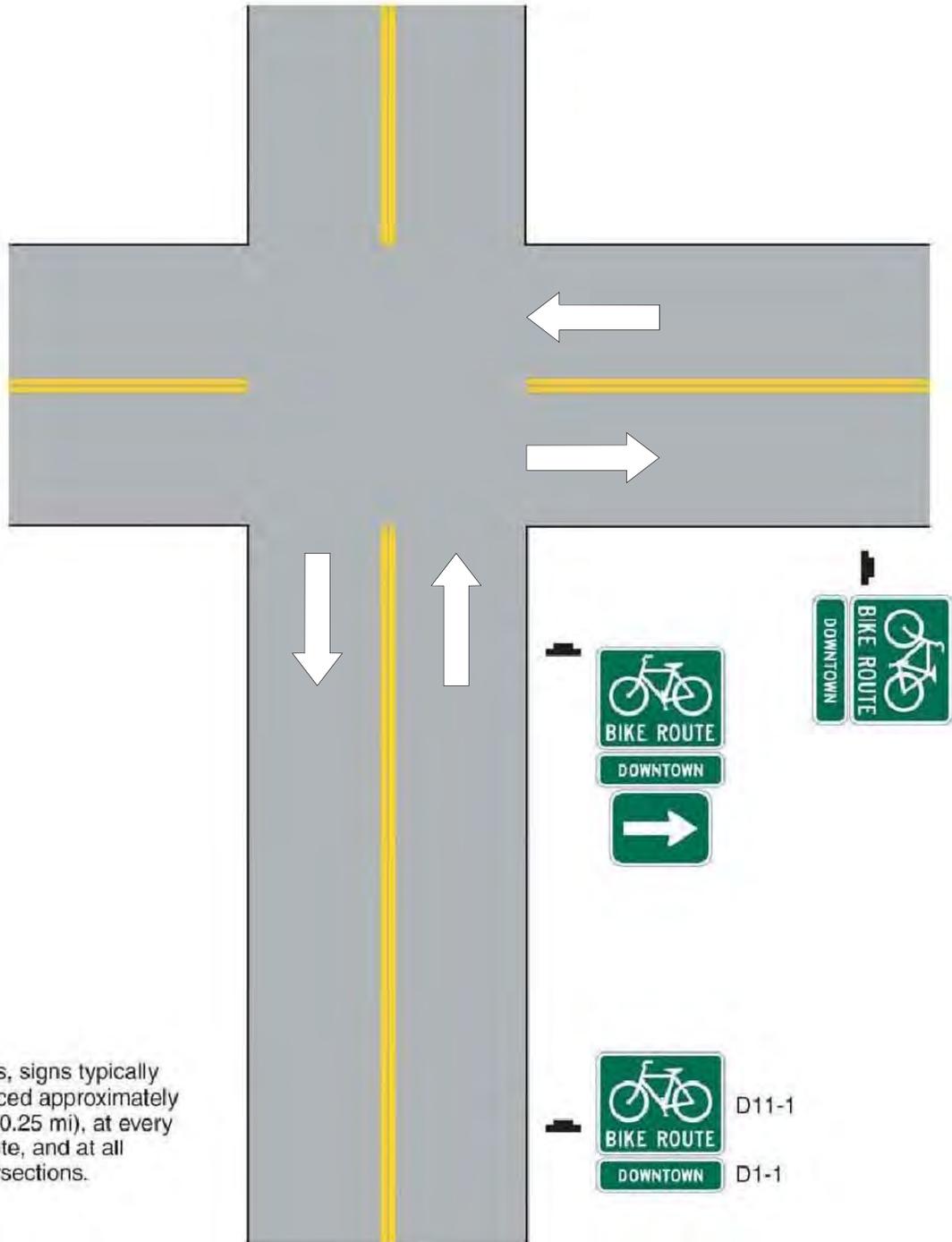
TYPICAL BICYCLE LANE END TREATMENT AT PARKING LANE INTO RIGHT TURN ONLY LANE (ON 2-LANE OR MULTI-LANE ROADWAYS)
SOURCE: CALIFORNIA MUTCD, FIGURE 9C-4

SHASTA LAKE

Exhibit E: CLASS 2 BIKEWAY



3. Appendix



In urban areas, signs typically should be placed approximately every 400 m (0.25 mi), at every turn in the route, and at all signaled intersections.

EXAMPLE OF BIKE ROUTE SIGNING

SOURCE: CALIFORNIA MUTCD FIGURE 9B-6

Exhibit F: CLASS 3 BIKEWAY



Prepared by



330 Hartnell Avenue, Suite B
Redding, California 96002
(530) 242-1700