CHICO BICYCLE PLAN

2019 Update

Photo Courtesy: Steve Twist, Avalon Portraits

ADOPTED BY CITY COUNCIL ACTION ON
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City of Chico

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Chico Bicycle Plan 2019 Update

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Chico Bicycle Plan 2019 Update

1. Introduction

The goal of the Chico Bicycle Plan is to implement the Chico 2030 General Plan goals relating to Bicycling, Complete Streets, sustainability, and reducing Greenhouse gas emissions. The plan provides high-level guidance for building and maintaining a bikeway network that encourages people of all ages and abilities to choose active transportation, creates a stronger community, and helps businesses thrive.

Chico's cultural identity is closely associated with bicycling. Small tributes to bicycling are sprinkled throughout the city. Public street art, murals, and uniquely decorative bike parking racks all celebrate bicycling as a way of life. College students biking between CSU Chico and popular city destinations are a frequent sight. Families traveling between home and school, work or the local farmers' market are equally common. On weekends, recreational cyclists flock to cafes and frequent local roads and trails.

Chico's network of Multi-Use Paths, Bike Lanes and Signed Bike Routes provide recreational and utilitarian (e.g., transportation to work, school or for errands) bicycling opportunities for visitors and residents alike. A significant portion of the bicycle network consists of off-street paths and trails that provide bicyclists a comfortable place to ride separated from motorized traffic. On the road, shared bike/motorist facilities dominate, with bike lanes primarily on major roadways and signed bike routes located along local streets with lower traffic volume and speed.

Chico's Bicycle Mode-Share (i.e, the percentage of people choosing bicycles for local transportation) is roughly double the national average (see section 2B for details). Chico has participated in the League of American Bicyclists' Bike Friendly Communities program for several decades, and in 2016 achieved Gold status. Chico has won many other bike-related awards from Bicycling Magazine's coveted "Best Bicycling City" in 1997 (Bicycling Magazine August 1997, pg 55) to recent ranking as the 6th Safest City for Bicycling in the US, in a study by security firm ADT (www.yourlocalsecurity.com/blog/2018/07/03/safest-cities-america-cyclists/ July 13, 2018).

The City of Chico has been proactive in bicycle planning since the early 1980s. The City's first Bicycle Plan was developed in 1991, and it has been revised and updated regularly with the most recent previous update in 2012. The 2019 Chico Bicycle Plan Update continues the evolution of the

Bicycle Plan, adopting current active transportation strategies and tactics while incorporating progress achieved since the last update.

The research for the 2019 Update to the Bicycle Plan was completed shortly before the Camp Fire (November 2018) and this update does not include potential impacts from the fire, which are not yet fully known.

Highlights of 2019 Update

- Expands from focus on specific bike routes to development of a complete bikeway network
- Transitions from "Bike Routes" to "Bike Boulevard" designations
- Adds Buffered Bike Lane and Protected Bikeway (new Class 4 facility) as options
- Includes Wayfinding implementation recommendations
- Updates Bicycle Goals and Objectives to reflect changes since 2012
- Updates Bicycle Project List by removing completed projects and adding new projects
- Prioritizes projects using a model based on quantifiable criteria

2. Current Conditions

Current infrastructure and conditions for bicycling in Chico have been shaped by policies contained in the Chico 2030 General Plan and programs dating back to the 1980s and 1990s. Some of the earliest dedicated bike facilities in the nation were built in that era, and strong bicycling programs and outreach combined to create a strong "bicycling ethic". Today, most citizens take pride in being part of a bicycle-friendly community, whether they ride a bicycle or not. This section reviews the current bike network, land use and settlement patterns, bike use and safety, end-of-trip facilities, integration with Transit, and bike safety enforcement, education, and encouragement.

A. Current Bicycle Network

A community's bicycle network is more than just a collection of all recommended bike routes. It should reflect the needs of the community, connecting users with popular destinations, using low-stress, comfortable routes. Caltrans defines the following types of recommended bikeway facilities:

- Class I Bikeway/Path: Bicycle or shared use path with exclusive right of way for bikes and pedestrians, away from the roadway and with cross flows by vehicle traffic minimized.
- Class II Bikeway/Bike Lane: Bike lanes established along streets, defined by pavement striping and signage to delineate a portion of the roadway for bicycle travel.
- Class III Bikeway/Bike Route or Bike Boulevard: Shared facilities (for bikes and vehicles) on low-volume, low-speed streets. Bike Routes are simply signed recommended routes that provide network continuity. Bike Boulevards intentionally prioritize bicycle travel for people of all ages and abilities on streets without large trucks or transit, using signage, shared-lane road markings (sharrows) and traffic calming techniques as required.
- Class IV Bikeway/Separated Bikeway or Cycle Track: "Protected" lanes exclusively for bicyclists, separated from adjacent roadways by a vertical physical barrier such as grade separation, posts, planters or on-street parking.

See Appendix A, Caltrans Guide to Bikeway Classification, July 2017, for more detail on bikeway types.

Chico's existing bicycle network, shown in Figure 1, features a robust system of off-street bike paths that are augmented by on-street bike lanes on major roadways, and signed bike routes on lower traffic streets. As of early 2019, Chico's existing bicycle network consists of 32 miles of Class I Bike Paths, 33 miles of Class II Bike Lanes and 21 miles of Class III Bike Routes. Chico's first Class IV Protected Bikeway facility on The Esplanade, is fully funded and targeted for completion in 2023.

Mileage of all Existing Bicycle Facilities

Facilities	Class I	Class II	Class III	Class IV	Totals
Existing	32 Miles	33 Miles	21 Miles	0.5	86 Miles

TABLE 1: SUMMARY OF EXISTING BICYCLE FACILITIES

CHICO BICYCLE NETWORK
Existing Facilities

Chico Bicycle Network
Existing Facilites
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route

- Elementary School
- Junior High School
- High School
- Charter School
- Special Services School
- CSUC Campus
- Butte College - Chico Centers
- City/CARD Parks

0 0.5
Miles
City Incorporated Area

Created: March 25, 2019

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Fig. 1

The existing bike network, while relatively comprehensive, suffers from some gaps between individual facilities and some high-stress intersections. Known challenge areas include the CSU Chico campus, where bikes are prohibited in the campus core, and the adjoining downtown Chico area, which is lacking in north-south routes. Most on-street connections to key destinations are traditional Class II Bike Lanes or Class III Bike Routes. Bicycling on sidewalks in the downtown core is prohibited by city ordinance. California State University, Chico (CSU Chico) prohibits bicycling through the campus core.

Wayfinding

Wayfinding is an important aspect of an effective bicycle network. Good wayfinding helps to connect people to destinations via the safest, most comfortable route. Chico's bicycle network includes comprehensive wayfinding signage on newer routes such as Bikeway 99, but only minimal/sporadic wayfinding signage on older routes.

Bikeway 99 offers quality maps and wayfinding signage to help users reach their destinations (left). Other older on-street bikeway signage exists, but lacks destinations, distance, or travel time estimates (right).

Maintenance

Chico's bicycle facilities, like Chico's roads, currently suffer from limited funding for maintenance. Much of Chico's extensive bicycle network was installed over 20 years ago, and pavement quality issues are an on-going challenge. Chico's secluded bike paths have additional public safety concerns, including limited lighting, overgrowth of trees and shrubbery, litter, and criminal activity. Current maintenance includes monthly sweeping of all bike facilities including Class 2 Bike Lanes and Class I Bike Paths, and repairs to potholes and similar hazards that are reported by the public to the Right of Way Maintenance Hotline (http://www.ci.chico.ca.us/general_services_department/operations_and_maintenance/operations_and_maintenance.asp) via phone or email, as City of Chico funding and staffing allow.

B. Current Land Use and Settlement Patterns

The Chico Urban Area encompasses approximately 54 square miles (140 square kilometers) in the northwest portion of Butte County in the northern Sacramento Valley. Chico is the county's largest metropolitan area, with an estimated population of 92,348 on January 2018, according to the California Department of Finance.

Data on the impacts of the November 2018 Camp Fire on Chico's population and infrastructure are currently being collected. Early indications show significant increase in population and Average Daily Traffic (ADT), accelerating wear and tear on roadways. Post-fire traffic volume and population are expected to be at or near build-out of the Chico 2030 General Plan.

The Chico Urban Area is generally flat, with elevations averaging approximately 200 feet. The surrounding landscape is characterized by flat agricultural terrain and the Sacramento River to the west with the rolling terrain of the foothills to the east. Chico's climate, typical

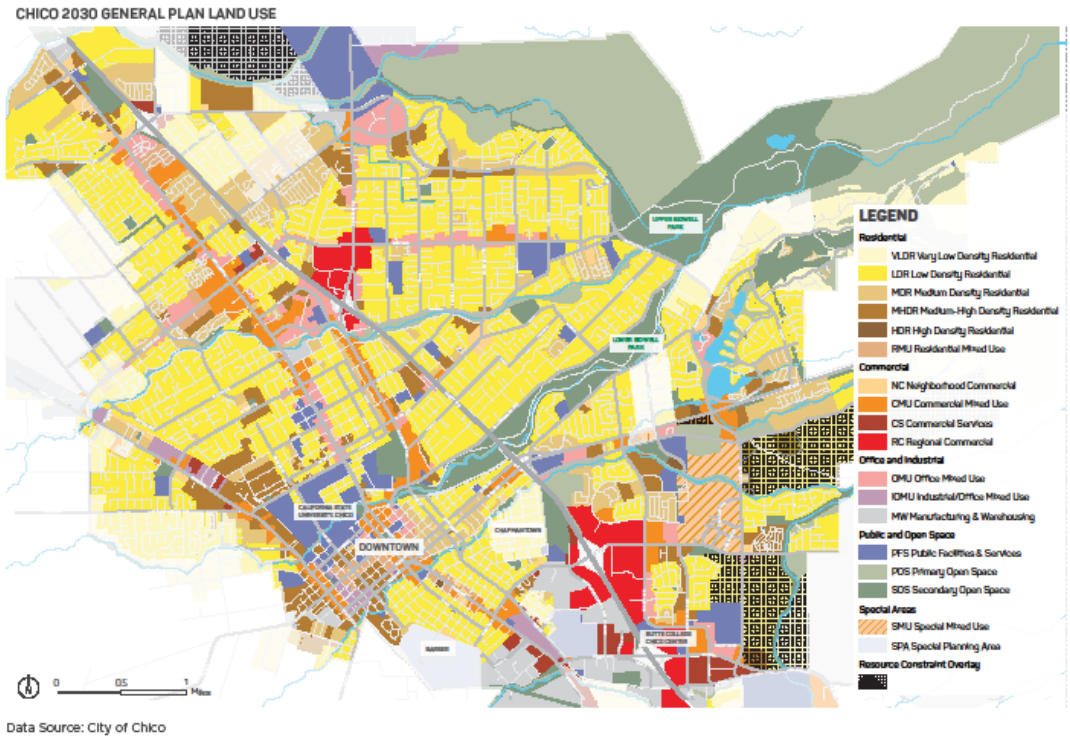


FIGURE 2: CHICO 2030 GENERAL PLAN LAND USE

of the northern Sacramento Valley, is generally categorized as Mediterranean, with hot, dry summers and cool, wet winters. Annual rainfall averages about 25 inches per year in the valley.

Chico is ideally suited for bicycling, but some barriers do exist. Physical barriers such as Big Chico Creek, Little Chico Creek, Comanche Creek and Butte Creek as well as Lindo Channel and State Route 99 all have limited crossing opportunities. State Route 32, busy arterials and the Union Pacific Railroad paralleling SR 32 can be difficult to cross safely. California State University, Chico (CSU Chico) prohibits bicycling through the campus core. Bicycling on sidewalks in the downtown core is prohibited by city ordinance.

Chico currently lacks a comprehensive city-wide Origin-Destination Study to precisely determine travel patterns, but Chico's land use and settlement patterns can be used to predict trip origin and destination points for all transportation modes. See Figure 2: Chico 2030 General Plan Land Use. From a bicycling perspective, the following land use categories are most significant: residential, education, shopping, public services, employment centers, and recreational and social facilities.

Major residential areas are located throughout the City. Schools are also located throughout the City, and many children bike and walk to school. The Chico Unified School District (CUSD) has expanded opportunities for children to transfer from a traditional neighborhood school to other district schools, throughout Chico, that offer varied/specialized curricula. Thus, more children than ever live a further distance from their schools. One of the primary characteristics that sets Chico apart from other valley towns is California State University, Chico. The University brings with it jobs, cultural enhancements, a large student population, and educational opportunities for the community, as well as a high demand for bicycle transportation infrastructure and facilities. Butte College's Chico Center also drives education-related trips.

The Chico downtown area and the two regional shopping developments, North Valley Plaza and Chico Mall, are primary shopping areas and destinations. Other smaller shopping areas, such as the Market Place and Park Plaza, are located throughout the City.

Public buildings include City, county, state, and federal offices. Most of the City offices are located at the City Hall complex in downtown Chico or on Fir Street/Humboldt Road. The California Highway Patrol office is located on Southgate Avenue.

Employment opportunities are located throughout Chico. Education, retail sales, health/medical, government, recreation/tourism, internet retailers and construction make up the largest employment segments in Chico. Both the Chico Municipal Airport industrial park in the north and Hegan Lane in the south are home to large manufacturing and distribution centers. Agriculture is also a significant source of employment.

Dining, cultural and tourist destinations abound in Chico, and most are accessible by bike. Arts and cultural options include no less than 10 museums, more than 20 pieces of significant public art, and live performances at multiple theaters and other venues. Dining options extend from food truck events to five-star restaurants, with a focus on locally grown menu items. Anchored by Sierra Nevada Brewing Company, the brewing culture in Chico is burgeoning with many new breweries in town. The wine scene is growing too, with multiple wineries in or near Chico.

The major recreational attraction in Chico is Bidwell Park. At 3,670 acres, it is one of the largest city parks in the United States. Bidwell Park is used extensively by all segments of the community, and its roads and trails are a key component of Chico's bicycle network. Within the park are facilities for bicycling (road and mountain), swimming, hiking, picnicking, softball, golfing, fishing, and other recreational activities. Other local recreational attractions include several city parks, the Silver Dollar Fairgrounds, various sports facilities and the Sacramento River. Most all of Chico's parks offer low stress bike routes.

C. Current Bicycle Use and Safety Data

Bicycle usage and safety data are closely linked. This section looks at current bike usage data, and then examines the characteristics of various types of bike riders and the types of facilities they prefer. It concludes with an examination of local bike safety/collision data.

Bicycle Usage

Because there are a wide variety of tools and techniques that assess bicycle usage, it can be difficult to determine exact ridership numbers:

- According to the League of American Bicyclists' (LAB) 2017 "Where We Ride" bike-commuting report, Chico ranked 5th among all US cities for bicycle commuting.
- The 2017 American Communities Survey (ACS), which uses US Census Bureau data to estimate the "Means of Transportation to Work" of workers over age 16, estimates Chico's bicycle commuters at 5.5% with a margin of error of 1.6%.
- The City of Chico's consultant, Nelson Nygard, completed a study of bicycle usage overall* in 2016, and results indicate that approximately 8% of the population in Chico bicycles daily, whether to work, to school, for errands or recreation.

Based on these estimates combined with recent bike counts conducted by City Traffic Engineering Department, the number for ridership in Chico is estimated for the purpose of this document at 6% mode-share, or roughly 5,500 bike trips daily. This is a great number relative to the US average of 1%, but far below bike-centric communities like Davis at 16.8%, Copenhagen at 41% and Amsterdam at 48% bike mode-share**.

*Chico bike usage analysis performed by transportation planning consultant Nelson Nygaard. Resulting estimate based on *NCHRP 552 Guidelines for Analysis of Investments in Bicycle Facilities.* The method takes into consideration the population within 1/4-mile, 1/2-mile and 3/4-mile of bicycle facilities, weighting the demand of populations most adjacent to the network higher than populations served further away.

**US and City of Davis mode-share estimates from League of American Bicyclists' "Where We Ride", Copenhagen and Amsterdam mode-share estimates from the 2017 Copenhagenize Index, http://copenhagenizeindex.eu/01_copenhagen.html)

Types of Bicycle Riders

To get an accurate picture of bicycle usage, and to plan for increasing bicycle ridership, it is helpful to consider the data in terms of different types of riders. There are several models for ridership, but the most commonly accepted was developed by the City of Portland's Bureau of Transportation. It is shown in Figure 3, Four Types of Bicycle Riders. According to the model, bicyclists can be divided into 4 categories with the following attributes:

- Strong and Fearless – cycling is a strong part of identity; comfortable sharing roadway with vehicle
- Enthused and Confident – cycling is part of identity; will share roadway with vehicle when necessary
- Interested but Cautious – does not identify as bicyclist; comfortable only on separate bike facility
- "No Way, No How" – does not identify as bicyclist; not interested in bicycling under any circumstance

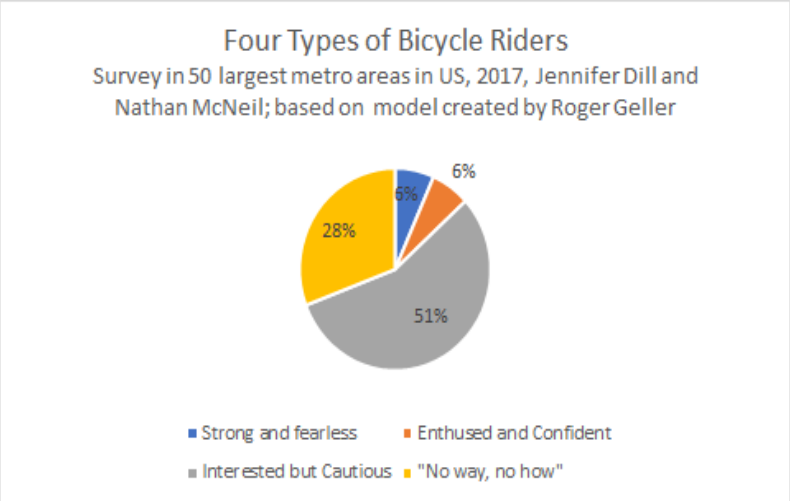


FIGURE 3: FOUR TYPES OF BICYCLE RIDERS

Based on this model, while Chico's daily ridership numbers are good compared to most US cities, it is likely that most of the "Interested but Curious", the greatest population of potential riders, are not riding. Rather, most of the bicycle riders in Chico are in the "Strong and Fearless" and "Enthused and Confident" categories.

A model called Level of Traffic Stress (LTS), developed by Peter Furth (http://www.northeastern.edu/peter.furth/criteria-for-level-of-traffic-stress/), can provide further insight into why the "Interested but Curious" do not ride regularly in Chico. The LTS model maps the Types of Bicycle Riders to specific bicycle facilities they would comfortably use (see Table 2, Levels of Bicycle Traffic Stress). The model considers a bicyclist's comfort based on several factors: the type of facility (path, road with bike lane, road without bike lane etc.), the speed of vehicle traffic and the volume of traffic. Streets are classified as LTS 1 through 4.

In general, local streets with low traffic volume and speed are more comfortable for bicycling, for people of all ages and abilities. Streets with high traffic volume and/or speed do not feel comfortable for most bicycle users or potential users, especially when there is little or no physical distance separating bicyclists from motorized traffic. To see details of Level of Traffic Stress Criteria for Road Segments, see Appendix B, Level of Traffic Stress Criteria for Road Segments.

LTS Level	Facility	Suitabiity
LTS 1	Strong separation, low speed and volume of traffic, simple crossings	Children, all adult rider types
LTS 2	Low speed and volume of traffic OR cyclists separated from traffic except at crossings	Mainstream adult population who are "Interested but Concerned" about bike riding
LTS 3	Bicyclists may interact with moderate speed or multi-lane traffic, or in close proximity to higher-speed traffic	"Enthused and Confident" riders
LTS 4	Bicyclists must interact with moderate speed or multi-lane traffic, or in close proximity to higher-speed traffic	"Strong and Fearless" riders

TABLE 2: LEVEL OF BICYCLE TRAFFIC STRESS

The relative comfort of riding on popular routes in Chico was modeled using LTS analysis to provide further insight into current conditions. The results of this analysis are shown in Figure 4, Rate of Bicycling and Level of Traffic Stress in Chico*. Low-stress routes show up as green or yellow on the map to indicate the higher level of comfort they provide, while red and orange high-stress streets do not feel comfortable for most bicycle users or potential users. This level of traffic stress is a significant deterrent to new and less-confident bicyclists. Some key Chico destinations, including some Chico schools, are located along routes with a high level of traffic stress, making bicycling a less-attractive option. In the case of schools, it explains parents' reluctance to allow their children to ride or even walk to school.

The model also shows the highest concentration of daily bicycle trips in downtown and the neighborhoods immediately adjacent (dark gray). Many neighborhoods next to Bikeway 99 also demonstrate higher numbers of people bicycling.

*Bicycle Level of Traffic Stress (LTS) analysis is based on *Mineta Transportation Institute's Low-Stress Bicycle and Network Connectivity* model developed by Furth, Mekuria and Nixon. The model estimates the effect of traffic-based stress on people riding bicycles as a function of facility type and vehicle volume and average speed along segments, approaching intersections, and at intersections.

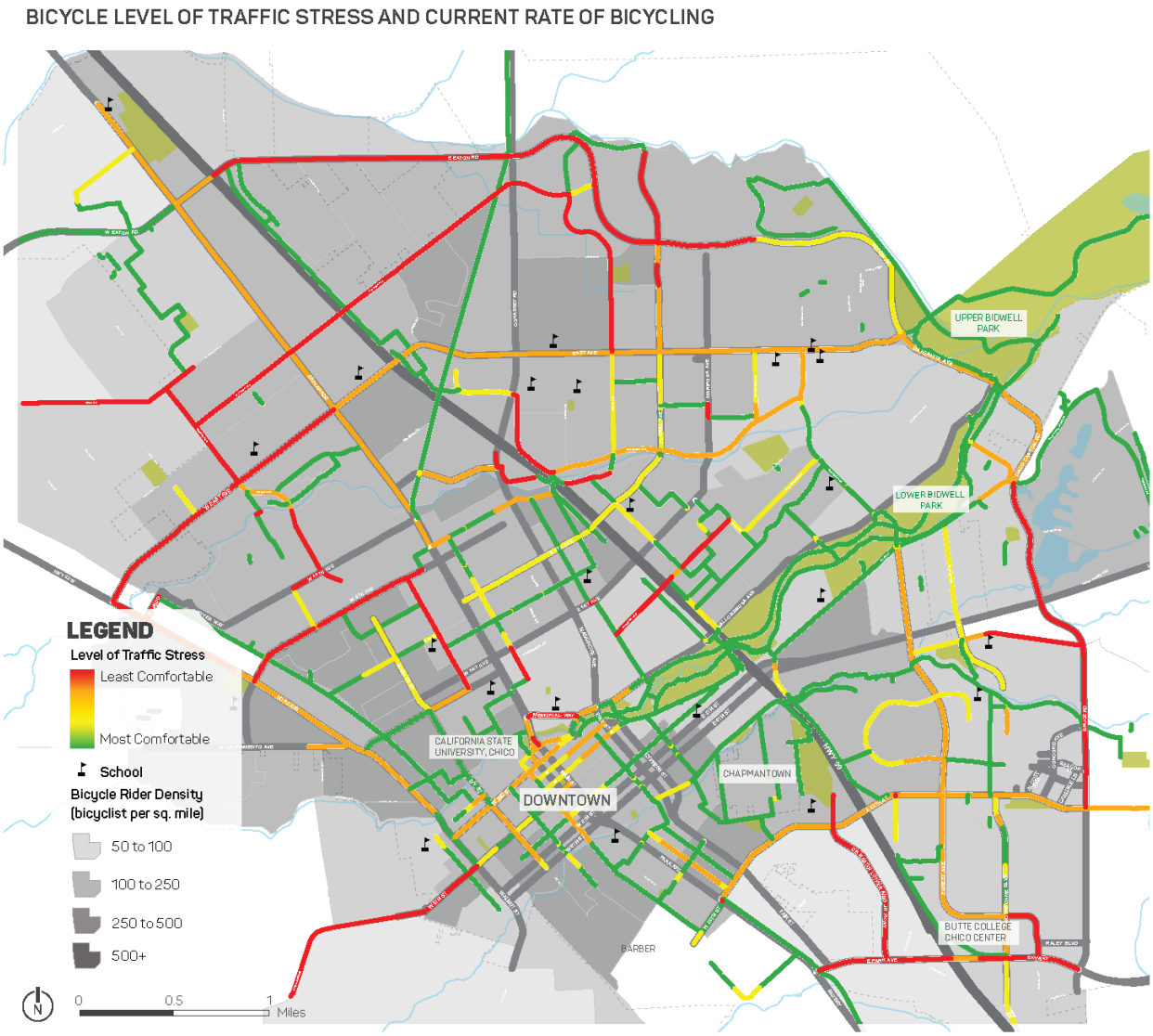


FIGURE 4: RATE OF BICYCLING AND LEVEL OF TRAFFIC STRESS

Bicycle Collision Data

The last piece of the picture is actual collision data. According to UC Berkeley's Traffic Injury Mapping System (TIMS), https://tims.berkeley.edu, there were 507 reported bike-motor vehicle crashes in Chico between 2008 and 2017, representing roughly 1% of all reported collisions (including all modes of transportation). It is generally accepted that many bike crashes go unreported, so the actual number of bike collisions and percentage of total collisions may be significantly higher.

Bicycle crashes are present on streets with and without dedicated bicycle facilities, though the majority are occurring on the latter. The largest number of crashes involving bicyclists is occurring on the major roadways in Chico, which carry a significant amount of bike traffic in spite of lack of infrastructure. Crash incidents are concentrated in the downtown core, on the Esplanade, East Avenue, Park Avenue, Cohasset/Mangrove/Fair Streets and SR 32, none of which are part of the current bike network.

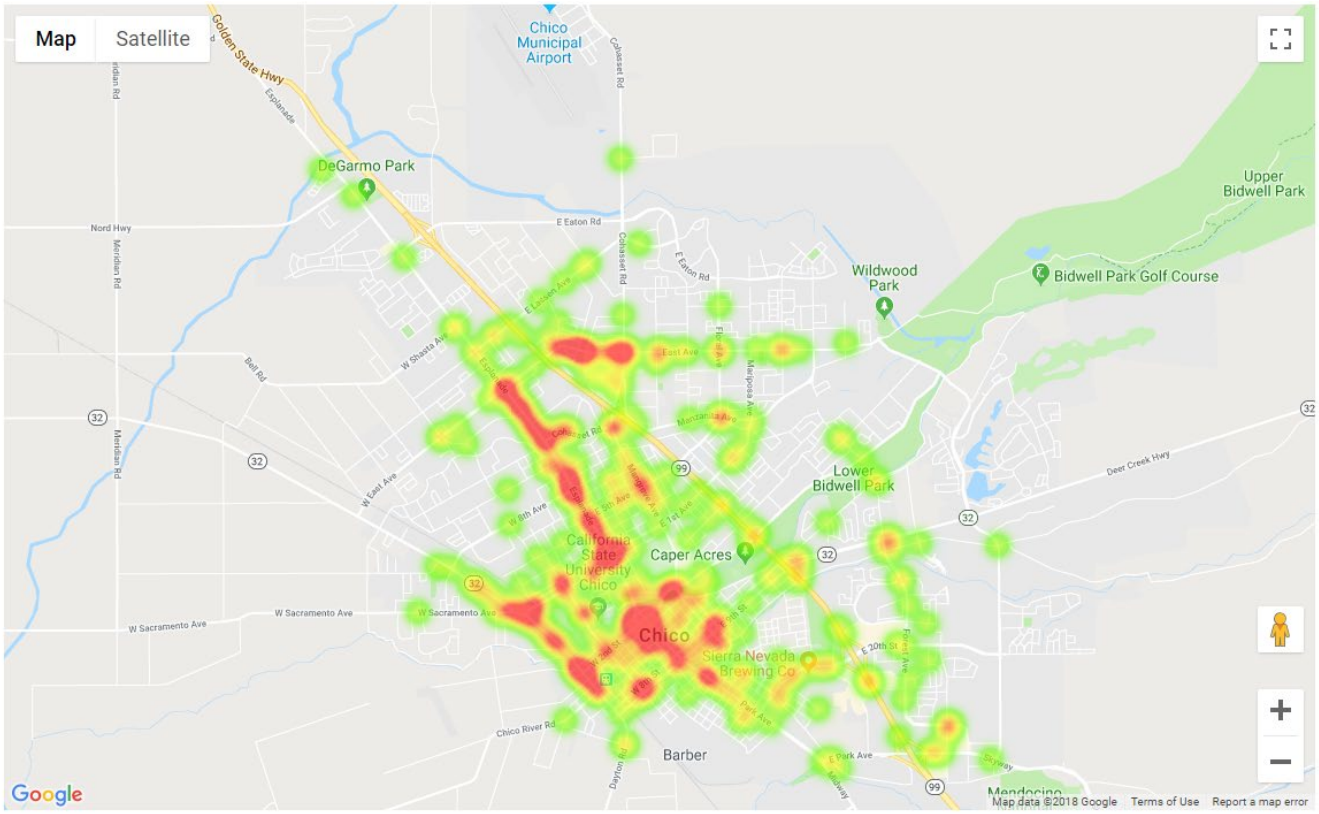
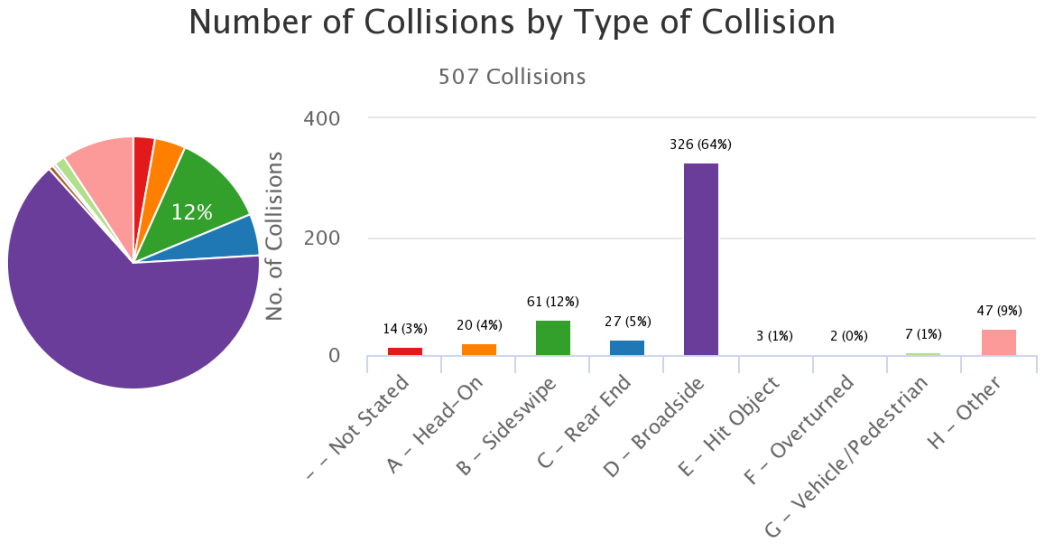
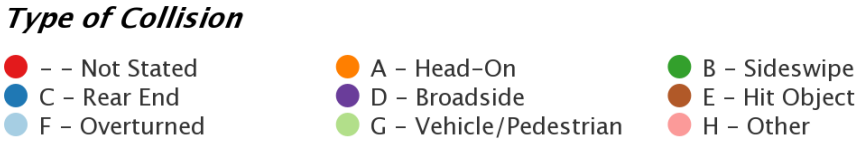


FIGURE 5: CHICO BICYCLE-RELATED COLLISION HEAT MAP 2008-2018, UC BERKELEY TIMS

Figure 5 shows the Heat Map of all reported bike-involved collisions, virtually all of which are bicycle/vehicle. The density of crashes is reflected by increasing color intensity – no reported crashes is white, and the highest density of crashes is reflected by the largest amount of red.

Figure 6 shows the types of crashes over this same time period. The vast majority (64%) are recorded as Broadside Collisions, where the side of one vehicle is impacted by the front or rear of another vehicle. In these collisions, usually the bicycle being hit 'broadside' by the front of the vehicle.





Type of Collision	Count	%
- -Not Stated	14	2.76%
A - Head-On	20	3.94%
B - Sideswipe	61	12.03%
C - Rear End	27	5.33%
D - Broadside	326	64.30%
E - Hit Object	3	0.59%
F - Overturned	2	0.39%
G - Vehicle/Pedestrian	7	1.38%
H - Other	47	9.27%

FIGURE 6: CHICO BICYCLE-RELATED COLLISION TYPES 2008 TO 2018, UC BERKELEY TIMS

D. Existing End of Trip Facilities

End of trip facilities for bicycling in Chico are primarily related to bicycle parking. Other facilities include shower and locker room facilities and even bike repair kiosks with pump and tools. Bicycle theft is a common occurrence in Chico and is strongly linked to bike parking. Enforcement efforts related to bike theft are covered in Section F, Existing Education, Enforcement and Encouragement Programs.

Secure Bike Parking

Basic outdoor bike racks offer parking, but limited security. They require the bicycle rider to secure their bike with a lock, which can be broken by a motivated thief. Better bike racks provide users with a way to lock both wheels and the frame, providing more security. Chico's bike rack design options range from simple to more artistic stand-alone varieties, but most offer a way to securely lock the frame and both wheels to the rack. Generally, bike racks can offer adequate security for short stays, in well-populated areas. The City of Chico has a policy of installing bike racks at any business that requests them.

Bike corrals offer parking (usually on-street) for multiple bikes but are also reliant on the user's lock and cable. It is worth noting that the City of Chico has some of the earliest examples of bike corrals. These on-street bike parking areas fit up to 10 bicycles in the space of one car parking space. Bike corral facilities help keep bicycle storage from interfering with sidewalk furniture and pedestrians. Bike corrals are concentrated in downtown Chico, where sidewalk riding is prohibited. Because of their on-street location, they also encourage bike riding on the street.

Examples of on- and off-street parking in downtown Chico

Elsewhere in the city bike parking options are less consistent. Locations of existing bike parking are shown in Table 3.

Bike lockers are also available for rent in some areas. In response to the growing need, local businesses, and retailers, especially in the downtown area, are beginning to offer secure indoor bike parking.

The City of Chico's local zoning ordinance (Title 19, 19.70.080) requires bicycle parking for new development. The bicycle parking requirements are as follows:

- For multi-family residential uses, bicycle parking equal to 20% of the number of off-street automobile parking spaces is required.
- For commercial or industrial development, bicycle parking equal to 10% of the number of off-street automobile parking spaces is required.

Specifications for the type of bicycle rack, locker, or other parking mechanism are not currently addressed. However, developers are offered incentives (mainly reduction in required vehicle parking) for exceeding minimum bike parking requirements during the design process.

BICYCLE PARKING INVENTORY IN THE CHICO URBAN AREA

Location	# Spaces	# Locations
Schools		
Butte College - Chico Center	100	1
CSU Chico	5500	46
Chico Senior High School	300	5
Pleasant Valley High School	220	2
Bidwell Junior High School	500	2
Chico Junior High School	300	1
Marsh Junior High School	200	1
All Grade Schools	Approx 300	14
Parks		
Bidwell Park	100	5
Community Park	30	2
CARD Center	6	2
DeGarmo Park	30	2
Wildwood Park	20	2
All other City Parks	100	10
Bidwell Mansion State Park	0	0

Location	# Spaces	# Locations
Shopping Centers		
North Valley Plaza	40	7
Chico Mall	50	5
Downtown area	160	23
Community Services		
Enloe Medical Center	27 + 6 lockers	2 (Private)
Other Enloe Locations	100	20+
Government Offices		
Butte County Municipal Court/offices	8	2
Butte County Library	30	1
City of Chico offices	40 + 12 lockers	6
U.S. Post Office - downtown	see downtown area	
U.S. Post Office - Vallombrosa	5	1
Inter-modal Facilities		
Amtrak/Greyhound station	7	1
Chico Municipal Airport	6	1
Downtown Chico Transit Center	10	1
Park-and-ride lot at SR 32 and Fir Street	10 + 16 lockers	2
Butte College Bus Stops	24	2

TABLE 3: BICYCLE PARKING FACILITIES

Shower and Locker Facilities

Shower and locker facilities are not currently available for bicyclists on a widespread basis. Those that are available are private. CSU Chico has shower, locker, and restroom facilities for students, faculty, and staff to use, as do the junior and senior high schools. Most major employers, such as Sierra Nevada Brewery, Enloe Hospital, and the City of Chico also provide shower and locker facilities for their employees. Health clubs and other athletic facilities may also provide a potential source of bicyclist support facilities. Public restrooms are available near some bicycle parking facilities at the county library, government offices, shopping areas, City Plaza, DeGarmo Park, and some Bidwell Park locations. Several bike repair kiosks with pump and tools have been installed at businesses, and Chico Velo has sponsored some at local schools.

E. Existing Integration with Transit and other Transport Modes

Bicycling offers a recognized solution to the transit first/last mile challenge experienced by many potential transit commuters that live or work too far away from a transit stop to comfortably walk. By connecting the bicycle network to transit, the reach of both modes is extended. Transit can be the middle leg of a bicycle trip; and bicycling to transit makes transit more accessible if it isn't in walking distance.

B-Line buses are equipped with front loading bike racks to accommodate people using a bicycle for a leg of their trip.

Butte Regional Transit operates the B-Line local bus service. All buses in the B-Line transit system provide bicycle racks with capacity to carry up to 3 bikes, offering Chico bicyclists a seamless connection with local transit throughout Butte County.

Bicycle parking is available at local bus and train depots and at many bus stops (see Table 3, Bike Parking Facilities for details). Beyond the county, options are limited. Greyhound Bus Lines' policy is to only transport bicycles as (boxed) luggage. Amtrak's Coast Starlight service, which serves Chico, does not currently accept bicycles, because Chico is not a staffed station and Amtrak does not accept any luggage at unstaffed stations. The Chico Airport currently does not offer commercial flight service.

F. Existing Bike Safety Enforcement, Education and Encouragement

Enforcement

The Chico Police Department is the law enforcement agency with primary education and enforcement responsibility for bicycle safety in the City of Chico, though the department's ability to provide these services has been challenged by budget constraints in recent years. As time allows, police officers speak to students from pre-school through high school about bicycle safety, pedestrian safety, and the importance of wearing bicycle helmets. Enforcement of bicycle laws has proven an effective educational tactic at high schools, with officers issuing warnings or citations, or both (depending on the violation and age of rider).

On an ad-hoc basis, the Police Department provides data on bicycle-related collisions to Chico's Traffic Engineering Department for review. Traffic Engineering reviews the types of collisions occurring on Chico's streets, leading to ***targeted enforcement campaigns*** against driver and bicyclist behaviors that lead to collisions in the places that they happen most frequently.

The Chico Police Department uses a radar trailer all around the city (largely in response to local residents' reports of speeding issues) to help increase driver awareness of their speed. The trailer is placed near a speed limit sign and displays the speed of approaching motorists to provide immediate feedback, which has been proven to help slow down vehicles and provide a traffic-calming effect.

The Chico Police Department's commitment to bicycling and bicycle safety extends to providing a bike patrol in the downtown area, making it more bike-friendly, more walkable, and safer.

No discussion of enforcement in Chico would be complete without a mention the ongoing issue of bike theft. Bicycle theft has become a significant deterrent to utilitarian bicycling, and bicycles have become recognized as a new form of underworld currency because they are easily exchanged for cash or goods. The Chico Police Department uses special tactics including a bait bike program to catch bike thieves.

Education

Chico Velo, the local bicycle advocacy organization, offers bike safety presentations to local schools and organizations on request. Chico Velo also distributes bike information at many local health and safety-related events to encourage safe bicycling behaviors, and regularly provides bike safety campaigns in the local media including press and outdoor advertising.

Butte County Public Health and the Chico Police Department both actively pursue grants for free and discounted bike helmets which they distribute at local school and community events. Bicycle and pedestrian safety is a regular focus of local community health and wellness fairs.

Adult and youth bike safety classes are regularly taught in the community. These include the League of American Bicyclists Traffic Skills curriculum, bike maintenance classes at local bike shops, advanced bike handling skills clinics hosted by local bike racing teams, bicycle transportation planning design classes for local planners and engineers and "safe driving" training for professional drivers sharing the road safely with bicyclists.

Encouragement

The Chico community provides extensive encouragement for bicycling. Chico supports a host of bike racing teams, clubs and groups (for youth to seniors) for road, gravel, cross, BMX and mountain biking. Chico has a host of welcoming bike shops and a calendar of organized rides that range from competitive to social/vintage attire. The celebration of bikes extends to a proliferation of bike art large and small, scattered throughout the city's public and private spaces. Key programs include:

Bike Valet – Chico Velo also supports a robust bike valet program. Bike Valet is offered at the Saturday Farmers Market year-round, the seasonal Thursday Night Market, Chico Heat games, and many individual events year-round. Chico Velo hosts over 200 Bike Valet engagements annually, and the demand continues to grow. This very popular program gives bicyclists safe and secure parking and peace of mind while shopping at the market or attending an event.

Bike Events – Chico is home to many bicycle-focused events, some of which are known world-wide, most notably the Wildflower Century, hosted by Chico Velo. On the last Sunday of every April, thousands of bicyclists travel from all over the country to participate in this almost 40-year-old event. The Wildflower is a "bucket-list" event for recreational cyclists, helping make Chico a cycling destination. The Chico Stage Race is one of the top 10 bicycle stage races in the US, attracting top professional bike racers, amateurs and spectators. The Bidwell Bump mountain bike race has been running since the 1970's. The vintage/social Chico Tweed Ride attracts close to 500 riders every year.

Bike Month – Also known as "Bike Chico", the month of May has become synonymous with fun and (mostly) free bike events like Bike Movie Night, Chico Bike Music Festival, night-light rides, and the vintage "Seersucker Ride" in addition to Bike to Work and Bike to School events.

Bike Week - The school component of Bike Chico/Bike Month, Bike Week provides a structured forum for encouraging kids to walk and bike to school. During Bike Week, students and staff who walk and bike to school are greeted each morning on arriving at school with prizes and nutritional snacks and given a button/sticker, refreshment, and a ticket for a drawing to win a new bicycle given away at the end of the week. Bike Week has grown in popularity over the years and most local schools participate. The local school district encourages students to bicycle to school by providing bicycle parking at schools and through improved bike circulation and crossings adjacent to school property. Some schools have very high levels of student ridership, whereas others are very low. School siting, both in terms of the distance students travel to attend their school and in its proximity to significant barriers, such as highways, influence the disparate level of ridership throughout the community.

Bicycle Commute Incentives - City employees are eligible for a ***Bicycle Commute Incentive Program***, which provides vouchers for repairs and equipment at local bike shops to employees who ride to work. Some larger employers also offer similar programs.

G. Disadvantaged/Underserved Communities

Equity refers to the fairness with which benefits and costs are distributed in a community. According to The Path to Complete Streets in Underserved Communities, (Kelly Clifton et al, Oct 2014, Pg 5), it is generally accepted that inequities exist with regard to availability of affordable transportation options, and that the best way to improve equity is to focus improvement efforts on the most disadvantaged communities. Although their need for economical and healthy transportation choices is the greatest, these disadvantaged communities are currently amongst the most under-served in terms of active transportation options.

California's Active Transportation Program (ATP), the primary funding source for bike and pedestrian infrastructure improvements, currently gives priority to projects benefiting disadvantaged communities. It allows the use of several different criteria to identify a disadvantaged community:

- Median Household Income: below a specified threshold
- CalEnviroScreen (identifies pollution burden): above a specified threshold
- Quantity of Free or Reduced Priced School Meals Provided: above a specified threshold

Under these guidelines, a number of local neighborhoods can qualify as disadvantaged, most notably the unincorporated "Chapmantown" area, which represents the largest concentration of non-native English speakers and residents with lower socio-economic status. Other disadvantaged neighborhoods in the community include areas in "The Avenues" and north Chico. As an example, Figure 7 shows Median Household Income by census tract in Chico, (California Healthy Places Index, www.healthyplacesindex.org). Dark blue indicates the lowest Median Household Income. Several of Chico's recent successful ATP grant applications have focused on these disadvantaged communities, enabling improvements to be made.

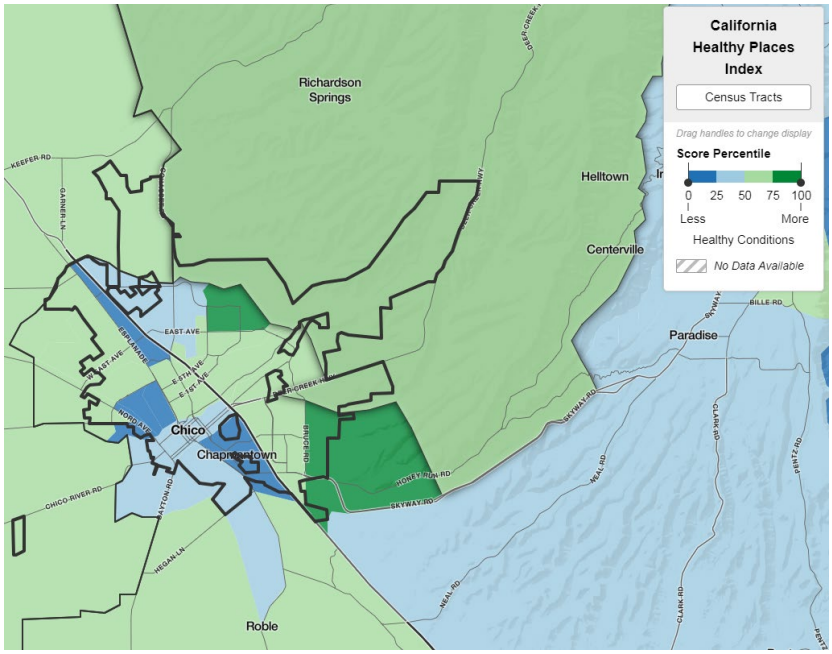


FIGURE 7: DISADVANTAGED COMMUNITIES IN CHICO

3. Community Input

Historically, Chico's community has had an active voice in the development of local bicycling infrastructure and programs. That tradition has continued with the 2019 Bicycle Plan update as the community has been involved in every step of the process. Inputs from bicyclists, pedestrians, motorists and those who would consider biking for transportation were sought out. Stakeholders from schools, businesses, advocacy and environmental groups, other local agencies such as Butte County Association of Governments (BCAG) and Butte County, City of Chico planning and traffic engineering departments as well as many individual community members have contributed to the development of this plan.

The development of the 2019 Update to the Chico Bike Plan began with contracting transportation planning consultant Nelson Nygaard Consulting Associates in 2015. Nelson Nygaard provided assistance with community outreach as well as data collection and analysis. They worked with the City from late 2015 through mid-2016, at which point they handed off an early draft of the plan. When resources became available in mid-2018, work on the plan was resumed with a target to complete the plan in December 2018. The project was put on hold due to the Camp Fire in November, and then resumed and was completed in early 2019.

Around the same time as the Bike Plan Update began, a Citizens Action Group, Chico Bike/Pedestrian Working Group, formed to work with and support the City of Chico in improving conditions for bicycling and walking. The Bike/Ped Working Group meets monthly and shares inputs and expertise on both short- and long-term issues. The Bike/Ped Working Group has worked closely with City Staff in developing and reviewing the 2019 Bike Plan Update.

The Mechoopda Indian Tribe of Chico Rancheria has also been supportive of bike and pedestrian infrastructure improvements in the community.

A. Community Engagement Process

Input for the 2019 Bicycle Plan update has been solicited from all users of streets, bike paths and trails. Nelson Nygaard met initially with key stake-holders, and opened an online survey website to collect inputs. This was followed by a Community Kick-off meeting on November 9, 2015, where basic principles of bicycle planning were presented and further inputs were solicited through a Suggestion Card. These cards were also made available through tabling at multiple locations at other bike-friendly events. The process continued with a second Community Meeting on May 17, 2016, where online survey results, initial findings and a proposed bicycle network and project list were presented, and more feedback collected before the project was put 'on hold'.

The project resumed in 2018 with internal staffing. A third Community Meeting was held on October 18, 2018, to present a more-complete draft plan update with improvements to the proposed bicycle network and prioritized project list based on stakeholder and community feedback. Extensive review and feedback from the Bike/Ped Working Group during this period

helped to shape the final document. Inputs and feedback from key stakeholder organizations have been solicited throughout the process.

Meetings and events were publicized through Press Releases to the media, Public Service Announcements (PSA's) and advertisements in local newspapers and on radio, as well as extensive promotion through City and Chico Velo social media outlets.

Public Input Opportunities and Responses			
Event	#Attendees*	Feedback Method	Respondents
Stakeholder meetings	12	Online Survey/Cards	324
Public Meeting 1	51	Online Mapping Game	355
Public Meeting 2	35	Chico Velo Bike Valet	74
Public Meeting 3	13	Bike/Ped Group	8
TOTAL	111	TOTAL	761

TABLE 4: PUBLIC INPUT AND RESPONSES
* Some individuals attended multiple meetings. Total does not represent unique attendees.

The online survey, which contained standardized questions, open-ended questions and an interactive mapping exercise, enabled City staff to better understand conditions, travel patterns, and the community's interest in biking overall. The online survey was accessible through the project website and was advertised via local farmers' markets, flyers at area businesses, and through radio and the Chico Enterprise-Record. 324 people provided input on existing and desired bicycle conditions and 355 people participated in the interactive mapping exercise. Although this survey is a small portion of the Chico population, it represents about 6% of the people who ride bikes regularly. Their responses clearly identify common trends in travel behavior, issues and challenges, and future priorities for biking in Chico.

B. Issues Identified

Bicycling is a popular mode choice among survey respondents for recreation, commuting, and errands. People that bicycle in Chico like recreational facilities, and they also want bike infrastructure that connects them to the places they want to go—restaurants, commercial and retail areas, schools, and parks.

"The future of bicycling is in making it more comfortable for people of all ages and abilities."

"Chico should prioritize investments that will increase safety, safe routes to school and community places."

- Open House attendee feedback

Participants showed an overwhelming desire to prioritize bicycle facilities within Chico. Consistent issues were identified through the Online Survey, the Interactive Mapping Exercise and the Suggestion Cards.

Online Survey Results

Figure 8, Issues and Challenges for Biking in Chico, summarizes survey respondent concerns. Safety is the major issue identified. While most participants stated they felt biking in Chico was moderately safe, they also indicated that there is significant room for improvement. Their answers revealed an underlying belief that safer infrastructure would encourage and support less-confident riders. They highlighted motor vehicle speed and proximity, volume of traffic, dangerous intersection crossings and lack of bike lanes or other separated facilities as major obstacles to bike riding.

The challenge of bike theft is also significant. The second most frequently mentioned concern in the survey, bike theft clearly ranks as a primary deterrent for bicycle trips. Secure bike parking, public education campaigns and bike sting enforcement could target this concern.

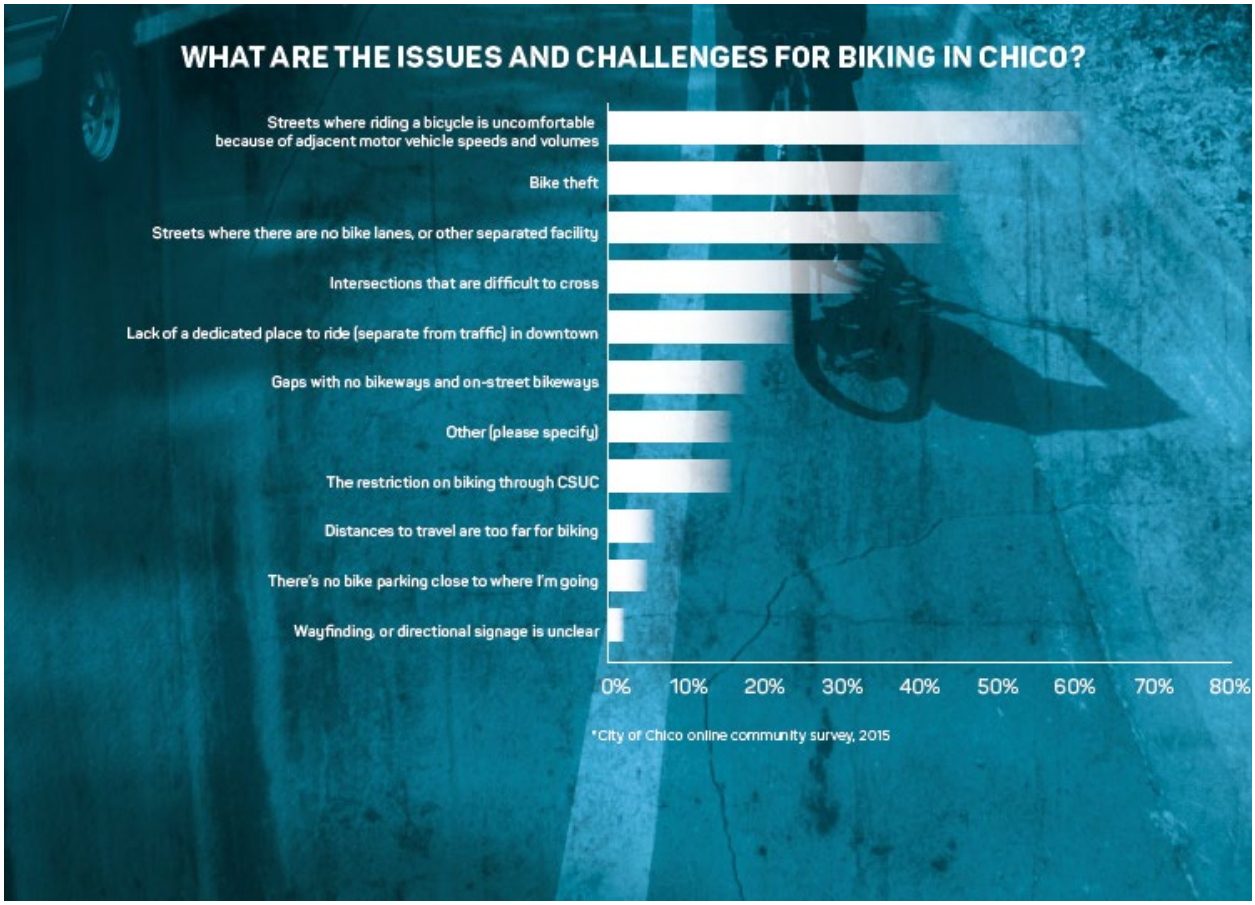


FIGURE 8: ISSUES AND CHALLENGES FOR BIKING IN CHICO (ONLINE SURVEY RESULTS)

CSU Chico's strict Bike-Free Campus Core policy was frequently mentioned. The CSU Chico campus presents a significant gap in the city's bikeway network because the campus is also a major bicycle trip attractor. Figure 9 shows CSU Chico bike parking and the bike-free Pedestrian Friendly Area where biking and skateboarding are prohibited.

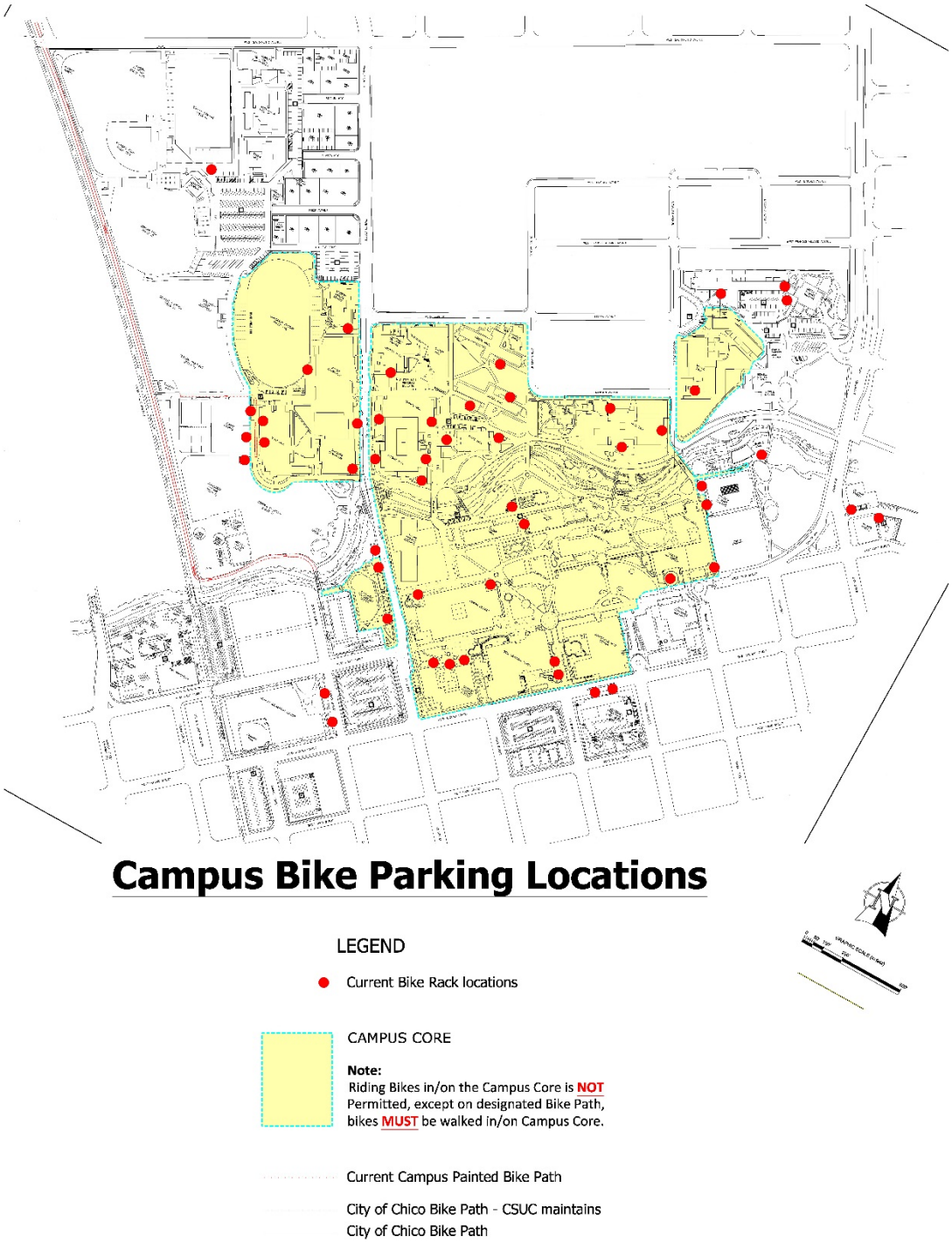


FIGURE 9: CSU CHICO PEDESTRIAN FRIENDLY CORE AND BIKE PARKING

Interactive Mapping Exercise Results

Participants in the interactive mapping exercise were asked to identify destinations they reach by bicycle, as well as to identify locations where improvements are needed. This input was used to help define the proposed bicycle network and identify/prioritize projects. The following maps highlight some of the results from the interactive mapping exercise, where the frequency of mentions is reflected by the size of the spots.

FIGURE 10: BIKE FACILITY REQUESTED (INTERACTIVE MAPPING EXERCISE)

The locations where respondents say bike facilities are needed are evenly distributed across the City. The most frequently mentioned locations are in Bidwell Park, on the CSU Chico campus, at W Lindo and SR 32, on Manzanita crossing under SR 99, and on Bruce Road.

FIGURE 11: DIFFICULT CROSSINGS IDENTIFIED (INTERACTIVE MAPPING EXERCISE)

The largest cluster of difficult bicycle crossings noted by survey respondents surrounds the CSU Chico campus, particularly to the northeast, near the entrance to Bidwell Park along Memorial Drive. A smaller cluster is found near SR 99 between East Avenue and 11th Avenue. The crossing at W 1st Avenue and Oleander Avenue drew the most responses. Other known difficult crossings include Esplanade at East Avenue and Nord Avenue near Stewart Avenue (near CSU Chico).

FIGURE 12: POPULAR BIKE DESTINATIONS (INTERACTIVE MAPPING EXERCISE)

Survey respondents say that they bike to places in many parts of Chico. The most popular places to bike are clustered around the CSU Chico campus, downtown, 20th Street (shopping) and lower Bidwell Park. Butte College students indicated a desire to bike to the Chico Campus which is located near SR 99 and Skyway.

Summary of Issues Highlighted

Common themes consistent throughout all meetings and input methods include the following:

- Belief that most people want more separation between bicyclists and motorists and that Class II Bike Lanes and Class III Bike Routes deter more people from utilitarian bicycling
- Bike theft and lack of secure parking a major deterrent of utilitarian trips by bike
- Belief that bicycling in Chico could be made safer, there are too many bike/vehicle collisions
- Motivation to bike for utilitarian trips is hampered by lack of infrastructure on busy 'destination streets' like East Avenue, Mangrove Avenue and downtown streets.
- Lack of knowledge/clarity about actual boundaries of downtown and CSU Chico campus 'no biking zones' deters ridership
- Many requests for pavement improvements/maintenance, particularly in Bidwell Park

C. Solutions Proposed

The top strategies participants selected to encourage more biking were:

- New infrastructure to close gaps in the existing network and provide access to key destinations
- Greater physical separation from traffic (both for new infrastructure and existing)
- Improved and higher visibility crossings along key bike routes and trails
- More paved trails

83% of the respondents to the online survey support replacing street parking or travel lanes with bicycle facilities. While this may not be representative of the community overall, it indicates a willingness to explore the possibility of trading auto mobility in favor of bicycle mobility, safety, and comfort where it is needed most.

Survey respondents were also encouraged to vote for their top three preferred bikeway facility types. Buffered bike lanes and colored bike lanes received the highest number of votes. For many of Chico's lower stress routes, buffered bike lanes offer a practical solution, and the use of color has been shown to be highly effective in improving safety in conflict zones.

FIGURE 13: BIKE FACILITY PREFERENCE

Analysis of community input, bicycle counts, traffic patterns and the existing network led directly to the identification of a set of north-south and east-west bicycle 'corridors' that provide comfortable and direct access to destinations throughout the city. This corridor system lends itself naturally to an effective wayfinding system as signage can be placed at every corridor intersection. Some of the corridors can be pieced together from existing infrastructure with some gap closures while others are longer-term 'transformative' projects on busier streets. This set of corridors ultimately became the framework for the Bikeway Network presented in Section 5 (Implementation).

4. Goals, Strategy and Policy

A complete bikeway network is desired by the Chico community, according to the 2019 Bike Plan Update Community Survey, and is a stated goal in the Chico 2030 General Plan. An important aspect of developing this network is closing critical gaps and overcoming physical barriers in the existing infrastructure. The construction of these priority bikeway projects is best supported by clear strategy and goals as well as consistent policy. This section reviews current regional policies and plans as well as City of Chico policies, plans and goals focused on providing a complete bikeway network, and how the Chico Bicycle Plan fits within these larger objectives.

A. Existing Policies and Plans

Regional Planning

Butte County Association of Governments (BCAG) adopted the most recent Regional Transportation Plan in December 2016. This regulatory document states BCAG will support the construction of Class 1, 2, and 3 bicycle facilities, assist in the development of local bicycle plans, and participate in local bicycle advisory committees.

BCAG's Butte County Transit and Non-Motorized Plan of 2015 recommends short and long-term changes and enhancements. The plan identifies high priority bike projects for Chico and also recommends providing bike lockers at transit stations, adopting a wayfinding policy, and investigating the potential for a bike share program in Chico. These recommendations are carried over into the 2016 Regional Transportation Plan.

BCAG is also responsible for the Regional Transportation Improvement Program (RTIP), which identifies projects and programs to be included in the State Transportation Improvement Program (STIP). Projects must be included in the RTIP and STIP to receive state funding from the Transportation Investment Fund.

Butte County Public Works maintains a County Bikeway Plan which provides guidance for planning outside the City limits of Chico. Some projects in the Chico Bike Plan extend outside city limits and into Butte County, and these projects will be managed in partnership with Butte County Public Works. The goals and policies of this plan are consistent with the Butte County Bikeway Plan.

Local Planning

The primary local plans and policies in the City of Chico that regulate bicycle planning are the Chico 2030 General Plan, the Chico 2020 Climate Action Plan and the Bicycle Plan. All these plans include bicycle-specific goals, policies, and recommended actions regarding the development and enhancement of safe, convenient bicycle facilities and programs. Neighborhood-specific plans also help define the shape of the proposed bicycle network. All of these plans are designed to be consistent as a whole.

The Chico 2030 General Plan emphasizes the importance of "Complete Streets" that consider bikeway improvements, as well as other multimodal forms of transportation, when designing roadways and establishing funding priorities. Per the Chico 2030 General Plan, *"Complete Streets are roadways designed and operated to enable all users safe and convenient travel through all modes of transportation".* Bicycle priorities include: creating additional bicycle lanes and safe, convenient, and attractive bicycle parking; providing signage, markings and lighting for bicycle safety; developing Safe Routes to School programs and other educational campaigns to promote bicycling and bicycle safety and requiring private developments to provide safe and secure bicycle parking and other support facilities.

The Climate Action Plan includes several bicycle specific goals within Transportation Objective 1: Reduce Vehicle Miles Traveled. It emphasizes policies and facilities that will increase the number of people biking to work, including large employer Travel Demand Management plans.

The goals and policies of this update to the Chico Bike Plan are consistent with, and further refine City support of, these pre-existing plans.

In addition, the Chico Municipal Code regulates various aspects of bicycling in Chico. It sets requirements for bicycle licensing and registration. It provides guidelines for private developments and community facilities to incorporate bicycle routes. It establishes the minimum required bike parking spaces for residential, commercial and industrial land uses, and sets standards for the location, design and accessibility of bicycle parking. It includes guidelines for routes through parking lots, and covered bike parking near the main entrances of buildings.

B. Goals, Objectives and Policies

Goals, objectives, and policies are integral parts of any bikeway plan, as they provide a clear direction for decision makers in implementing a comprehensive bikeway system. Adopted as part of the 2012 Bicycle Plan, the Chico Bicycle Plan goals, objectives and policies are updated here to reflect current bicycle planning methodologies, updates to the General Plan and progress made since 2012. The Bicycle Plan also includes the goals of promoting bicycling as part of the multimodal transportation system and developing a bikeway system that facilitates recreational use.

The Chico Bicycle Plan prioritizes community involvement to identify our biggest active transportation challenges, particularly in our most disadvantaged neighborhoods, and to create solutions that integrate those neighborhood values with transportation safety.

Overall Goal: Continue to make Chico a more bike-friendly community through engineering, education, enforcement, encouragement, equity and evaluation.

Goal 1: Design and implement a complete bikeway network that connects people with the places they want to go to, and supports bicyclists of all ages, ethnicities, incomes and abilities.

Objective: Continually develop the bikeway network based on evolving needs of our community.

Policies:

1. Update bikeway network design based on regular community outreach and feedback.
   - Promote bikeways between residential areas, especially disadvantaged neighborhoods and educational, employment, recreational, shopping, governmental and other key destinations.
   - Maintain a prioritized list of infrastructure and non-infrastructure bicycle projects in conjunction with the proposed bikeway network.
   - Explore projects to improve bicycle access to the downtown area
   - Establish long-term goal of LTS 1 or 2 on entire bike network. Design all new arterial streets with appropriate bike facilities to achieve LTS 1 or 2.

2. Implement the bikeway network
   - Improve existing crossings and provide for future crossings of creeks, railroads, and roadways.
   - Build new facilities in conjunction with road reconstruction or re-striping projects, subdivision development and related off-site improvements.
   - Construct Class I or Class 4 bikeways in undeveloped areas prior to or concurrent with the development of these areas.
   - Provide for, and maintain, shaded routes where possible

3. Design new bikeways to meet or exceed current Caltrans bikeway design guidelines (Caltrans Highway Design Manual, Chapter 1000, November 2017) wherever possible.

4. Emphasize the construction of new facilities, ongoing maintenance of all bike facilities, and upgrading of existing facilities in the expenditure of city transportation funds.

5. Work with Butte County and other agencies to implement a regional bikeway system that provides convenient connections to the local bikeway network.

6. Continue to encourage California State University, Chico to reintroduce opportunities for safe bicycle access into and through the main campus area.

7. Work with representatives of the CUSD to plan for bike access to future schools and include bike access as a priority during vehicle access discussions and projects.

8. Continually improve methods for engaging community input and feedback, especially in disadvantaged neighborhoods.

Goal 2: Improve safety, efficiency and comfort for bicyclists on the bikeway network.

Objectives: Minimize potential conflicts between autos, bikes, and pedestrians. Minimize or eliminate safety hazards. Use enforcement as a tool to promote safety.

Policies:

1. Continue efforts to improve safety on Class 1 Bike Paths with lighting and video cameras, vegetation clearing to improve line-of-sight and remove hidden areas, and increased enforcement presence.

2. Continue to improve bikeway maintenance and repair.
   - Maintain regular sweeping of the bikeway network to remove gravel and other hazards.

- Ensure that on-street infrastructure is safe and minimize hazards such as uneven pavement and gravel.
- Provide for, and maintain, shaded routes where possible.

3. Work with representatives of the CUSD to provide and maintain/improve safe bicycle access to schools on the existing bikeway network.

4. Monitor bicycle collisions to identify hazardous locations and causal factors. Implement targeted enforcement campaigns where appropriate.

5. Regularly update Chico Bicycle Level of Traffic Stress analysis based on current collision data and prioritize bike projects to lower LTS when needed.

8. Enforce traffic laws for cars and bicycles focusing on high volume and high accident locations. Ensure that Chico PD officers understand the vehicle code as it relates to bicyclists.

9. Support implementation of a county-wide Bicycle Ticket Diversion program to encourage more enforcement activity.

10. Consider increasing the use of police officers or community service officers on bicycles to increase the effectiveness of the enforcement program.

11. Achieve reductions in collisions while accomplishing equity goals related to enforcement.

Goal 3: Provide sufficient secure bicycle parking facilities where they are needed and address ongoing bike theft concerns.

Objective: Improve availability and security of bicycle parking facilities throughout Chico.

Policies:

1. Continue to require provision of secure, well-lit, bicycle parking at all existing and future multiple-family residential, commercial, industrial, and office/institutional uses. Enforce existing ordinances requiring bicycle parking facilities.

2. Formalize incentives for new or expanding multi-tenant commercial and industrial projects and large employers to provide secure bicycle parking, lockers, and showers for employees. Incentives may include reduced fees or reduced parking requirements.

3. Continue to provide convenient bicycle parking in the downtown core, either on the street or in public or private parking lots. If demand exists, vehicle parking should be removed in favor of bicycle parking.

4. Encourage Chico USD to provide safe, secure, convenient, covered bicycle parking for students and staff.

5. Work with Chico Police Department to implement programs to reduce bicycle theft.

6. Monitor the effectiveness of Chico's free bicycle registration program in reducing theft and returning stolen bikes to their owners.

Goal 4: Provide and plan for bicycle facilities during land development review.

Objective: Require new residential development to include bicycle connectivity to the bikeway network and require all new development to provide bicycle parking and end of trip facilities.

Policies:

1. Require pedestrian access and bikeway connections to the city-wide system every 500 feet, where feasible, as part of the subdivision review process.

2. Require developers to provide bicycle facilities in new residential and commercial developments as part of project approval.

3. Maintain continuity of bike lanes along arterials through developing areas, avoiding piecemeal bike lane construction that results in varying levels of quality.

4. Continue to collect and expend developer fees for new bikeway capital projects.

5. Encourage developers to take advantage of incentives such as reduced fees or reduced parking requirements for new or expanding multitenant commercial and industrial projects that provide new bikeway facilities, secure bicycle parking, bike share, lockers, or showers for employees.

6. Ensure biking is considered in implementing Chico 2030 General Plan goals and policies related to reducing single occupancy vehicle trips.

Goal 5: Promote bicycling as a part of the multimodal transportation system.

Objectives: Provide bicycle access to rail and transit transportation facilities. Promote bicycling as the solution to the transit first/last mile challenge.

Policies:

1. Provide bikeways that connect to park-and-ride lots, the downtown transit center, rail station, and other inter-modal facilities. Prioritize access from disadvantaged neighborhoods.

2. Provide and improve bicycle parking facilities at the downtown Transit Center, rail station, SR 32 Transit Center and other inter-modal transfer facilities.

3. Continue to support B-Line provision of bicycle racks on all buses.

4. Support promotion of bicycles for first/last mile in transit and ride-sharing brochures.

5. Work with Butte College to provide bicycle racks on buses and reconfigure bus stops to locations where bicycle parking is available.

Goal 6: Improve bicycling safety through driver and cyclist education programs.

Objectives: Make the Bikeway Network well-known and easy to follow. Enable bicyclists, pedestrians and motorists to understand how to travel safely in the roadway environment and the laws that govern these modes of transportation. Ensure that bicyclists and motorists are aware of their responsibilities in interactions between motorists, pedestrians, and other bicyclists.

Policies:

1. Implement Wayfinding signage to help bicyclists find the safest, most direct routes to their destinations.

2. Include basic rules of interaction between bicyclists and motorists, pedestrians, and other bicyclists in regional bikeway maps, literature and popular local websites.

3. Encourage the development of pamphlets on Rules of the Road, safety and sharing the road for bicyclists and motorists. Support distribution to bicycle shops, schools, libraries and the Department of Motor Vehicles.

4. Support the establishment and continued availability of cycling safety education programs for cyclists of all ages and especially in schools.

- Encourage organizations and individuals to educate cyclists of all ages on bicycle safety in accordance with the California Vehicle Code.
- Encourage CUSD to include classes on bicycle safety in local schools.

Goal 7: Encourage and support both recreational and utilitarian use of the bikeway network.

Objective: Facilitate and increase recreational and utilitarian bicycle riding in the Chico Area.

Policies:

1. Support organizations in developing recreational trails and ensure their connectivity to the Chico bikeway network.

2. Ensure that bikeway facilities are designed to take full advantage of the scenic qualities of the Chico area for the enjoyment of residents and visitors alike.

3. Provide adequate bicycle parking facilities at local recreation areas.

4. Utilize the latest available technology for maintaining a regularly updated map of Chico and regional bikeways and actively support distribution and use.

5. Conduct a bike share feasibility study.

6. Encourage and support local bicycle events and National Bike Month.

Goal 8: Pursue and obtain optimal funding for bicycle programs and projects.

Objectives: Identify all possible funding sources for bikeway projects. Include projects that meet requirements for a variety of funding sources in the Bicycle Project List.

Policies:

1. Regularly update the Chico Bicycle Plan to ensure it continues to meet grant funding requirements.

2. Develop ongoing contact with regional, state, and federal agencies and private entities to identify and compete for available funding sources. Work with these agencies to obtain grants and other allocations to fund bicycle projects.

3. Prioritize projects identified in this Plan in the Capital Improvement Program, Operations Budget and Street Maintenance Budget. Emphasize the construction of new facilities, ongoing maintenance of all bike facilities, and upgrading of existing facilities in the expenditure of City funds.

4. Encourage the Chico Area Park and Recreation District to participate with the City and County to prioritize funding the construction and maintenance of trailways.

5. Continue to collect and expend developer fees for new bikeway capital projects through the City's development impact fee program.

6. Develop funding sources for ongoing maintenance of bikeways.

5. Implementation

Chico's long-term commitment to bicycling has shaped the community and it is already a great place for strong and skilled bicyclists. Chico's next goal is to create an environment that will encourage the "Interested but Cautious" to choose bicycling as a viable transportation choice for utilitarian trips. By building a complete bikeway network, improving wayfinding and updating existing facilities, Chico will become a place where people of all ages and abilities feel comfortable and safe choosing bicycles for transportation needs.

The proposed bikeway network utilizes a variety of bike facilities from traditional bike paths and bike lanes to bike boulevards to the newer Class IV Protected Bikeways (see Appendix A, Caltrans Guide to Bikeway Classification for detailed review of recognized bike facilities). Projects are prioritized based on current information but priorities will evolve over time based on funding, development and other factors. Coupled with education, encouragement and enforcement programs, this will significantly increase bicycling mode-share, maximizing the health, economic and environmental benefits of bicycling throughout our community.

Looking to the future, funding sources are moving toward an integrated view of bicycle, pedestrian and transit needs. To address this, cities are developing complete Active Transportation Plans.

- ***Recommendation:*** *To move forward into the future, Chico will need a complete Active Transportation Plan integrating bicycle, pedestrian and transit planning, and should pursue funding for the development of a complete Active Transportation Plan as a priority.*

A. Proposed Bicycle Network and Project List

A good bikeway network has the following characteristics:

- Connects neighborhoods to key destinations with safe and direct routes
- Provides route options for all ages and abilities
- Offers consistent navigation/wayfinding information
- Enables bicyclists to easily determine the comfort level of a route in advance
- Entices bicyclists away from less-safe non-network roads
- Addresses current and future needs

The 2019 Chico Bike Plan Update builds upon past bike plan lists of existing and proposed bike facilities, to create a complete bikeway network. This network is based on public input regarding current high-stress routes and crossings, desired destinations and facility types, as well as projected needs based on future development over the course of the next 10+ years.

To facilitate travel, key north-south and east-west corridors were identified to build a simple-to-navigate grid system (see Figure 14). Some of the corridors can be pieced together from existing infrastructure with some gap closures while others are longer-term 'transformative' projects on

busier streets. In some cases these visionary projects will replace existing 'patchwork' corridors and in other cases they will become new corridors.

A major component of the network is thorough and easy-to-follow wayfinding signage that highlights destinations, travel time and facility type at corridor intersections. The complete proposed Bikeway Network is shown in Figure 15.

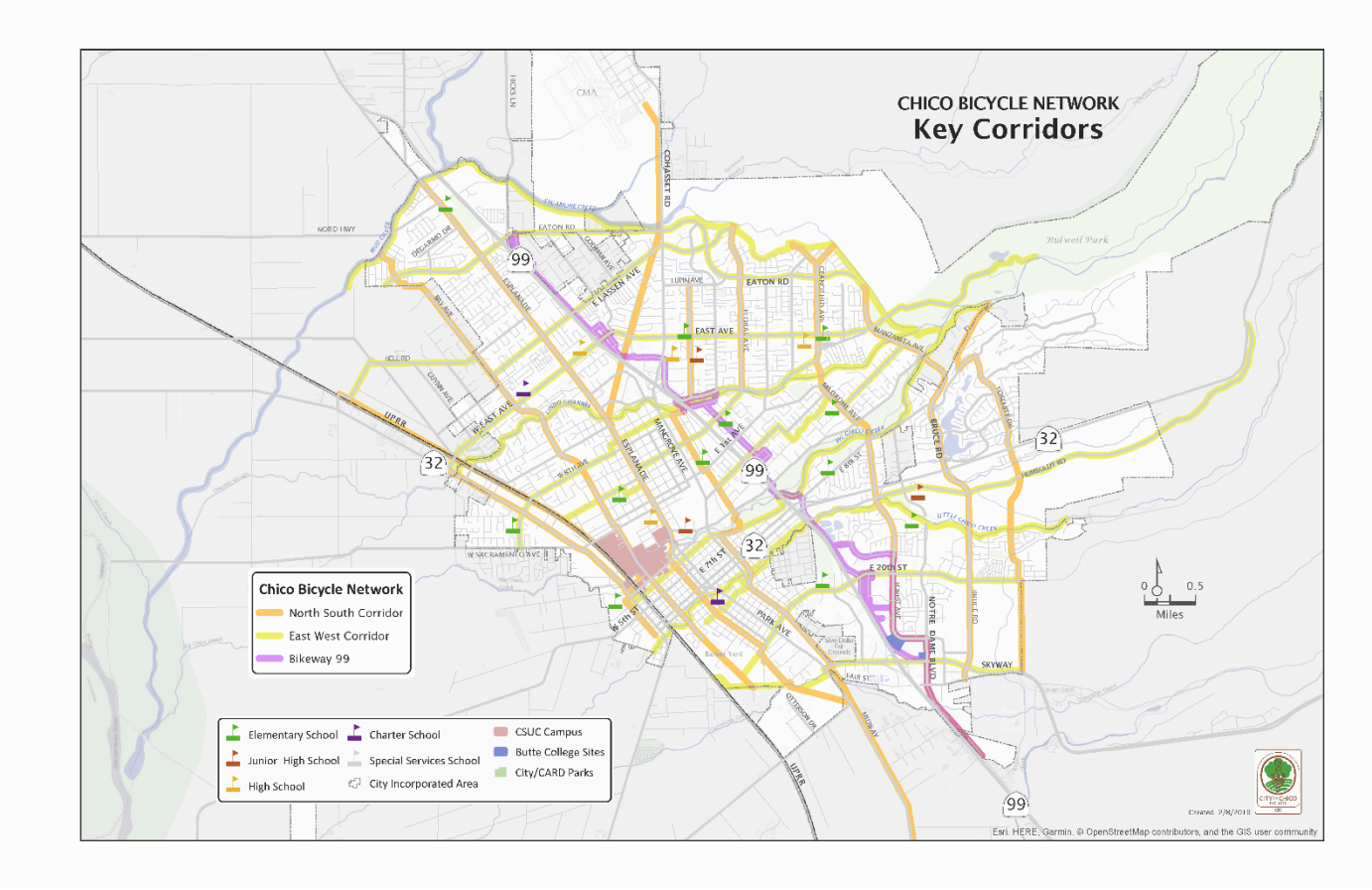


FIGURE 14: KEY BICYCLE CORRIDORS

The 2019 Bike Plan Update Project List (Appendix C) contains roughly 250 projects required to fully realize the proposed Bikeway Network. Each project was reviewed individually to select the optimum facility to meet our community's needs, based on a wide variety of factors including (current and future) traffic volume and speed, available Right of Way, proximity to key destinations, and need for bike AND pedestrian facility improvement. It is worth noting that for Chico, in many cases, Multi-use Paths provide a better solution for the 'Interested but Cautious' than the new Class IV Protected Bikeways. When aligned beside a major roadway, Multi-use Paths provide the same (or greater) separation from traffic but also provide the added benefit of supporting pedestrians. These paths will be important in developing Chico's Active Transportation network in the future.

The project list is a living document that will be maintained and modified over time as progress is made and circumstances evolve. The projects on the list are prioritized based on both community benefit and feasibility/cost. The community benefit scoring criteria include:

- School route (0-2 points)
- Closure of a critical gap or key destination (0-2 points)
- Reduces LTS to 1 or 2 (0-2 points)
- Known collision site(s) (0-2 points)

Additionally, based on a rough estimate of feasibility/cost/timeframe, each project was assigned to one of the following categories:

- Shovel-ready, funding in process, likely 1-2 year timeframe
- Straight-forward implementation, unfunded, likely 2-5 year horizon
- Medium-term project with some cost or implementation challenges, likely 5-10 year horizon
- Transformative project or significant cost or implementation issues, likely 10+ year horizon

These project prioritizations have been made based on the best information currently available and are subject to change as circumstances evolve. New funding opportunities may enable upgrades to proposed facilities (replacing a proposed bike lane with a proposed Class IV protected bikeway for instance). Changes in usage patterns and resulting safety issues could also prompt a shift in project priorities.

CHICO BICYCLE NETWORK
Proposed Facilities
w/Existing Facilities Background

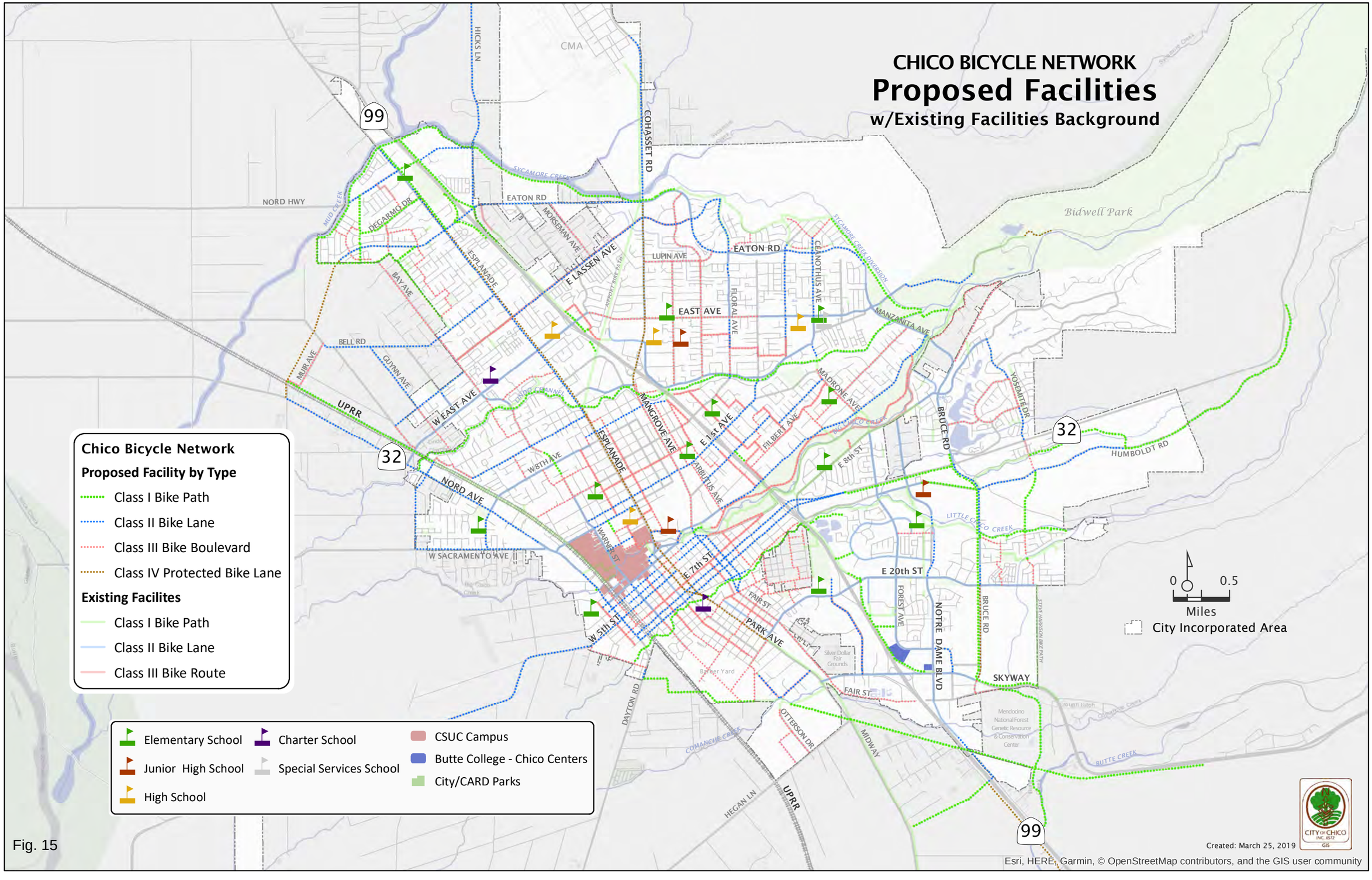


Fig. 15

The following chart shows a summary of existing and proposed facilities:

Mileage of all Existing and Proposed Bicycle Facilities

Facilities	Class I	Class II	Class III	Class IV	Totals
Proposed	29.2 Miles	46.4	47.7	12.3	137.6
Existing	32 Miles	33 Miles	21 Miles	0.5	86 Miles
Totals	61.2 Miles	79.4 Miles	68.7	12.8 Miles	222.1 Miles

TABLE 5: EXISTING AND PROPOSED BICYCLE FACILITIES

Wayfinding

Wayfinding offers the biggest 'bang for the buck' in improving current bicycling conditions and encouraging utilitarian ridership in Chico. It is a critical component of Chico's proposed Bikeway Network, providing users with the navigation assistance they need and strongly encouraging awareness and use of the bike network over less-safe route options. Design and implementation of an effective network-wide Wayfinding system will immediately increase usership and value of existing facilities and will greatly enhance the value of future infrastructure improvements.

There are three main categories of wayfinding signs:

- Decision signs - Placed at the intersection of one or more bikeways, decision signs include directional cues to key destinations, giving riders the information to select the best possible route to reach their intended destination. These signs may include distance, approximate time and even route difficulty or facility type
- Confirmation signs – Placed along a designated pathway, confirmation signs let people on bikes know that they are continuing along their intended path of travel
- Turn signs - Placed before intersections, turn signs alert people of upcoming changes in direction and are often paired with pavement markings to reinforce notice of the turn

FIGURE 16: TYPICAL WAYFINDING SIGNAGE

Many cities today are using a combination of unique signs, pavement markings, colors, and other symbols to differentiate bike routes from other streets. "Branding" the bikeway network improves cyclists' ease of use and identifies locations that are prioritized for people on bikes.

- ***Recommendation:*** *Chico should immediately pursue grant funding to design, develop and implement a complete wayfinding program. Wayfinding is a priority project on the Bicycle Project List.*

High Priority Projects

While it is important to begin the process for long-term, transformational projects, the main focus for the next 3 years will be the implementation of the highest-priority short-term projects that will provide the biggest impact on improving bicyclist safety and comfort. The High Priority Project Plan focuses on creating and improving safe routes on lower-stress streets and implementing a

city-wide wayfaring system to move cyclists off of higher-stress streets where the majority of bike-related collisions currently happen. The following projects are on the High-Priority list:

- Completion of Bikeway 99 Phase 4 and Phase 5 (ATP grant secured)
- Esplanade Class IV Protected Bikeway (ATP grant secured)
- Comanche Creek Greenway Phase 2 (Urban Greening grant secured)
- Little Chico Creek Bike/Ped Bridge (ATP grant secured)
- Bruce Road Bike Lane (development funds secured)
- Humboldt Road Multi-Use Path from El Monte to Bruce Road (funds secured)
- Wayfinding signage design and implementation
- Conversion of Bike Routes to Bike Boulevards, phase 1

Transformative Projects

Chico offers good options for "Strong and Fearless" and "Enthused and Confident" bicyclists to get to most high-priority destinations. To transform Chico into a true "8 to 80" community, where elementary students ride to school and play, and octogenarians find bicycling an attractive choice for utilitarian trips, barriers in the natural and built environment must be overcome.

Chico's east-west drainages like Lindo Channel, Sycamore/Mud Creek and Little Chico Creek offer the opportunity to build dedicated bike and pedestrian facilities. For north-south routes (and East Avenue running east-west), Class IV Protected Bikeways can lower the traffic stress level of roads like the Esplanade, Cohasset and Park Avenue to provide bicyclists direct access to key destinations.

Transformative projects are required to make this kind of change happen. While some of these visionary projects may take many years to accomplish, planning should start now, to ensure their completion in the future. Chico's list of transformative projects (Appendix D) includes, but is not limited to:

- Esplanade to Park north-south Corridor Update:
  - Multi-Use Path AND bike lane on Esplanade from Bodero to Sycamore/Mud Creek Path
  - Protected Bikeway on Esplanade from 11th Street to Bodero Way
  - Protected Bikeways from 1st Street to 9th Street on Main and Broadway
  - Protected Bikeway from 9th Street to 20th Street on Park Avenue
- NEW Cohasset to Mangrove north-south Corridor:
  - Protected Bikeway on Cohasset from Manzanita Court to Eaton Road
  - Protected Bikeway on Mangrove from Manzanita Court to Vallombrossa Avenue
- East Avenue east-west Corridor Update:
  - Protected Bikeway from SR 99 to Mariposa Avenue
- NEW Lindo Channel east-west Corridor:
  - Multi-Use Path from SR 32 to Sycamore Creek Multi-Use Path in Upper Park
- Completion of Sycamore Creek/Mud Creek east-west Corridor:
  - Multi-Use Path from W Eaton Road extension (planned) to Wildwood Roundabout
- NEW Little Chico Creek east-west Corridor:
  - Multi-Use Path from Pomona Ave to existing path at SR 99
  - Multi-Use Path from existing path at Bruce Rd to Picholine

Maintenance Programs

Current maintenance programs including monthly sweeping of all bikeway facilities and the Right of Way Hotline should continue.

The City of Chico is currently working with Chico Velo on implementing an 'Adopt-a-Trail' program which will support local Class 1 Bike Paths. This program will allow individuals and organizations to adopt a trail in designated increments, providing waste clean-up, minor vegetation pruning and reporting issues of concern to the City. The adopting organization will receive a sign acknowledging their support.

This Bicycle Plan also recommends the following improvements to bikeway maintenance:

- ***Recommendations:***
- *Priority should be placed on identifying funding sources for larger maintenance projects.*
- *Since bicyclists are more vulnerable to pavement quality issues, key bike routes should be given priority in annual pavement reviews.*

B. Proposed Land Use and Settlement Patterns

The Camp Fire is driving significant changes to the land use and settlement patterns proposed in the Chico 2030 General Plan, the impact of which will not be known for months or possibly years.

- ***Recommendations:***
- *It is recommended that this plan be revisited soon after the impact of the Camp Fire has been adequately assessed, possibly as part of a complete Active Transportation Plan.*
- *The City of Chico would also benefit from specific Origin-Destination Studies, particularly for schools and major employers. This data would be used to support or refine the prioritization of projects on the Bicycle Project List. Origin-Destination Studies are included in the Bicycle Project List.*

C. Proposed End of Trip Facilities

More and better End-of-Trip bike facilities will encourage more bicycling. Secure bike parking is a top priority as the risk of bike theft is a major deterrent for utilitarian bike trips. Many different options for bicycle parking exist, from basic outdoor bike racks to rental lockers to indoor bike storage.

- ***Recommendations:***
- *The Chico Police Department should be encouraged to implement and expand programs to reduce bike theft.*
- *Bike lockers, bait bikes and lock exchange hold the highest promise for reducing this barrier to bicycling in Chico.*
- *A public education campaign that alerts people to theft concerns and informs them of steps that can be taken to minimize risk is also essential.*

Other End-of-Trip facilities such as locker rooms, showers and repair tool stations will also increase the appeal of bicycle commuting.

- ***Recommendation:*** *Incentives should be provided to encourage major employers to provide these benefits.*

D. Proposed Integration with Transit and Other Transport Modes

Bicycling offers an elegant solution to the transit user first/last mile problem. B-Line Transit buses already accommodate bikes and there are bike lockers and/or bike racks at transit stops. The City will continue to increase the availability of bicycle parking at intermodal locations.

- *The City should work with Butte Regional Transit to better understand the scope of the first/last mile challenge for local users and propose bicycle-related solutions. Combined with bike network improvements, this will help to enable transit options for many commuters that live or work outside of walking distance from a transit stop.*
- *The City should also continue to work with Greyhound Bus and Amtrak's Coast Starlight service to change their bicycle-as-luggage transport policies to become more bicycle-friendly.*

E. Proposed Bike Safety Enforcement, Education and Encouragement Programs

Chico already hosts multiple enforcement, education and encouragement programs and the City should make every effort to support these existing programs. In addition, the following key programs and program enhancements are key to achieving the 2019 Bike Plan Update goals. See Appendix E, Non-Infrastructure Projects for the full list of non-infrastructure (encouragement, education and enforcement) projects and programs that support Bikeway Network usage.

Enforcement

State law now provides for the creation of a ***Bicycle Ticket Diversion Program*** that allows people ticketed for bicycle-related infractions to take a class instead of paying the violation fee. Enforcement of bicycle violations has been shown to increase with the implementation of a bike ticket diversion program. Butte County Public Health received Active Transportation Program (ATP) Cycle 4 grant funding to implement a county-wide bicycle ticket diversion program.

- *The City of Chico should support development of the Butte County Bicycle Ticket Diversion program and participate when it is implemented. Bicycle diversion programs have been shown to be highly effective in improving bicycling safety. This project is included in the Bicycle Project List.*
- *The ad-hoc efforts to develop **targeted enforcement campaigns** based on Traffic Engineering review of collision data should be formalized into an annual or seasonal program.*
- *More widespread and programmatic use of **speed feedback signs and trailers** is also recommended to reduce vehicle speeds and enforce speed limit violations in known speeding problem areas and for back-to-school safety reminders.*

Education

Various ***Bicycle Safety Education programs*** in local schools and community centers can improve bicycling safety by informing drivers and cyclists about the rights and responsibilities of road use.

- *Butte County Public Health received ATP Cycle 4 grant funding to develop a county-wide Adult Bicycle Safety Education program. The City of Chico should support and promote this program as it is developed.*
- *The City should support local nonprofits and schools in providing a variety of bike safety education opportunities in whatever ways possible.*
- *As high stress barriers prohibiting bicycling to school are eliminated, it becomes increasingly important to develop a robust **Safe Routes to School program**. The City of Chico should work with the CUSD, Butte County Public Health and local nonprofit organizations to support Safe Routes programs in whatever way possible.*
- *Encouragement of bicycling to school should always be accompanied by classes on bicycle safety in the schoolroom.*
- *Butte County Public Health has recently received grant funding to implement a county-wide bicycle ticket diversion program, and the City of Chico should support program development and participate when it is implemented. Bicycle diversion programs have been shown to be highly effective in improving bicycling safety. This project is included in the Bicycle Project List.*

Encouragement

The City of Chico should continue to support, encourage and promote the many existing local encouragement programs and events hosted by local organizations.

Bike Month offers an excellent opportunity for the City to support and encourage more bicycling.

- ***Recommendation:** Bike Month and its associated bike challenges, bike to school and bike to work days should be supported more actively by the City of Chico.*

Social Media campaigns and techniques to can be very effective in helping to motivate residents to consider shifting some of their trips out of cars and onto bicycles. Social Media offers effective tools for introducing people to the social, economic, and environmental benefits of bicycling for transportation. Such a program could also be particularly effective at the start of the school year, where students and parents are already in a considerable state of adopting new behaviors and may be more open to changing habits.

- ***Recommendation:** The City of Chico should consider hiring an intern to implement bike-promoting social media campaigns*

A well-thought-out ***Bike Share*** program can have a powerful effect in encouraging more people to choose active transportation options, while at the same time providing an uplift to the implementation area. However, as the range and variety of Bike Share programs continues to grow, from docking to dockless, and including traditional City Bikes as well as options from e-bikes to e-scooters, the risk of uncontrolled implementation has emerged.

- ***Recommendations:***
- *To protect itself from costly bike-share 'invasions', the City of Chico should act quickly to adopt updates to the municipal code as recommended by the Downtown Mobility Access Plan.*

- *The City of Chico should research, investigate and implement a well-thought-out bike-share program focused on the downtown area, which will encourage ridership and help support efforts to revitalize the City's downtown. This project is included in the Bicycle Project List.*

The City's ***Bicycle Commute Incentive Program*** provides vouchers for repairs and equipment at local bike shops to employees who ride to work. Some larger employers also offer similar programs.

- ***Recommendation:*** *As part of land development or other Transportation Demand Management conversations, this type of program should be spread to other large employers in the area.*

Evaluation and Equity

Evaluation is an important component of any bicycle infrastructure/program investment or project. Evaluation measures can be quantitative (physical bike counts) or qualitative (community surveys), or ideally both. Planning in advance to measure success at meeting project goals ensures that project goals are well-understood, improves project outcomes, and provides a mechanism to revise overall program goals over time.

- ***Recommendation:*** *All bike projects should include bike counts and community surveys both prior to project start and after project completion.*

All local bike programs should specifically target traditionally underserved populations. This should include actively seeking funding specifically for programs in disadvantaged communities, as well as adding specific outreach efforts to community-wide programs, offering events and classes on-site in underserved neighborhoods, and building relationships with leaders and organizations in these neighborhoods.

- ***Recommendation:*** *It should be anticipated that projects which can meet the criteria for disadvantaged communities will have a better chance of securing grant funding, which may accelerate their priority in the Project List.*

F. Resulting Increase in Bike Commuters Anticipated

Based on the improvements in the Chico Bicycle Plan, the number of commuters choosing bicycles is expected to double in the next 10 years. This represents an increase from approximately 6% to 12% bicycle mode-share. If population numbers stay the same, that would mean roughly 12,000-14,000 transportation trips made by bike instead of motorized vehicles daily, up from 6000 currently. With projected population growth, that number would increase. The Chico 2030 General Plan predicts an average 2% annual growth which translates to a population of roughly 140,000 in 2030. Based on these estimates, the overall number of daily utilitarian bicycle trips would be between 16,000 and 17,000 by 2030.

- ***Recommendation:*** *It is recommended that these estimates be revisited in light of better data regarding the impacts of the Camp Fire, in the coming months.*

6. Funding and Administration

Completion of any project on the Chico Bicycle Plan Project list is contingent on finding adequate funding. City staff is constantly seeking out new and emerging funding sources for bicycling projects as they evolve. Significant changes have occurred in both funding sources and the availability of funding since the last Chico Bicycle Plan Update in 2012. Since that time, federal and state funding sources have come to acknowledge active transportation options as a key component in solutions to problems from greenhouse gases to obesity and have consolidated a variety of funding sources. These changes have and will continue to influence project prioritization. The first portion of this section shows past project funding and the second describes funding sources currently available.

A. Recent and Current Bicycle Projects

The City of Chico has a solid history of success in obtaining grant funding for bike and pedestrian facilities. Table 6 shows funding secured for bicycle infrastructure projects from 2010 through 2019, and funding sources.

PROJECT	FUNDING DATE	FUNDED AMOUNT	FUNDING SOURCE(S)
Marigold Improvements	2010	$0.4 million	Safe Routes to School (SR2S)
1st & 2nd Street Couplet	2011	$5.4 million	Bicycle Transportation Account (BTA) and Congestion Mitigation Air Quality (CMAQ)
Bikeway 99 Phase 1-3	2010-2015	$4.8 million	American Recovery and Reinvestment Act (ARRA) and CMAQ
Bikeway 99 Phase 4	2017	$2.0 million	Active Transportation Program (ATP) and CMAQ
Bikeway 99 Phase 5 Design	2017	$1.83 million	CMAQ
Meyers/Ivy Street to 22nd Street	2015	$51 thousand	Local funding
Comanche Creek Greenway Phase 1	2016	$1.0 million	US Housing and Urban Development (HUD) Community Development Block Grant: Affordable Homes
Comanche Creek Greenway Phase 2	2018	$1.5 million	CA Natural Resources Agency Urban Greening Grant
Nord Avenue Improvements	2018	$4.3 million	HSIP
Esplanade Protected Bikeway	2019	$7 million	ATP
Little Chico Creek Bridge	2019	$1.5 million	ATP
Bikeway 99 Phase 5 implementation	2019	$12.4 million	ATP

TABLE 6: RECENT AND CURRENT PROJECT FUNDING

B. Funding Sources

There are a variety of federal, state and non-profit funding sources for bicycle transportation projects. In California, the majority of federal and state transportation funding is administered by state agencies. Grants for transportation improvement projects are made available through a competitive application process. Most grants are for particular purposes such as infrastructure, planning or outreach.

Current Funding Sources

Active Transportation Program (ATP): A combination of federal and state Senate Bill (SB)1 funding, administered by the California Transportation Commission and CalTrans. SB1, the Road Repair and Accountability Act. SB 1 provides the first significant, stable, and on-going increase in state transportation funding in more than two decades, through a state-wide gas tax increase. ATP encourages increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking
- Increase safety and mobility for non-motorized users
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals, pursuant to SB 375 (0f 2008) and SB 341 (of 2009)
- Enhance public health
- Ensure that disadvantaged communities fully share in the benefits of the program, and provide a broad spectrum of projects to benefit many types of active transportation users

The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The ATP administered by the Division of Local Assistance, Office of Active Transportation and Special Programs
Approximately $130 million was available in 2016-2017. For more info, go to http://www.dot.ca.gov/hq/LocalPrograms/atp.

CA Sustainable Communities and Adaptation Planning Grants: Funded by SB1, the Road Repair and Accountability Act. SB 1 provides the first significant, stable, and on-going increase in state transportation funding in more than two decades, through a state-wide gas tax increase. Sustainable Communities Planning Grants for Transportation encourage local and regional planning that further state transportation goals. Climate Change Adaptation Planning Grants support local and regional agencies for climate change adaptation planning. For more info on transportation planning grants, go to http://www.dot.ca.gov/hq/tpp/grants.html.

Highway Safety Improvement Program (HSIP): Federal Highway Administration (FHWA) funds administered by CalTrans. Funds for projects that can be implemented quickly and do not require significant Right of Way acquisition or environmental review. Projects must address safety issues identified using crash data. Funding is targeted toward:

- Bike and pedestrian safety improvements
- Enforcement activities

- Traffic calming and crossing improvements

For more information, go to: http://www.dot.ca.gov/hq/LocalPrograms/HSIP/apply_nowHSIP.htm.

State Highway Operations and Protection Program (SHOPP): State funds administered by CalTrans. Pavement rehabilitation, operation, and safety improvements on state highway system. Funding is targeted towards:

- Collision reduction
- Mobility enhancement (ADA)
- Major damage restoration
- Pavement and facility preservation

SHOPP has recently been augmented with funding from SB (Senate Bill) 1, the Road Repair and Accountability Act. SB 1 provides the first significant, stable, and on-going increase in state transportation funding in more than two decades. Local jurisdictions work with Caltrans to have projects placed on the SHOPP list. For more information, go to: http://www.dot.ca.gov/hq/transprog/shopp.htm.

Office of Traffic Safety (OTS): Funds distributed by the National Highway Traffic Safety Administration and administered by California OTS for safety education and enforcement programs. Pedestrian and Bicycle safety is one program area. Applicants must provide traffic safety data that demonstrates how the program will save lives. Applicants must be able to cover the cost of the project and then be reimbursed. For more information, go to https://www.ots.ca.gov/Grants/.

Federal Transit Authority (FTA) Grants: The FTA provides funding for bike parking amenities connected with transit facilities. For more info, go to https://www.transit.dot.gov/grants.

Land and Water Conservation Fund (LWCF): Grant funding administered by CA Dept of Parks and Recreation for acquisition or development of land to create new outdoor recreation opportunities for the health and wellness of Californians. Renovation or creation of outdoor facilities within existing parks that are not currently under federal protection (could include multi-use paths or bike trails). Match of at least 50% required. Maximum of $2 million. For more information, go to https://www.parks.ca.gov/?page_id=21360.

Congestion Mitigation Air Quality Program: Federal funds administered by local transportation agencies such as Butte County Association of Governments. Project must be included in Federal Transportation Improvement Program (FTIP) and local Regional Transportation Plan (RTP). Infrastructure and non-infrastructure bicycle and pedestrian facility programs, Public education and outreach activities. For more info, go to http://www.bcag.org/Planning/CMAQ/index.html.

Traffic Mitigation/Development Impact fees: Local assessments on new development projects. Funds collected and administered by the City of Chico, used for design and construction of bike facilities (no maintenance). For more information, go to http://www.chico.ca.us/government/CityFeeSchedules.asp.

7. Appendices

Appendix A: Caltrans Guide to Bikeway Classification
Appendix B: Level of Traffic Stress Criteria for Road Segments
Appendix C: Bicycle Infrastructure Project List
Appendix D: Transformative Project List (subset of Appendix C)
Appendix E: Joint Projects (subset of Appendix C)
Appendix F: Bicycle Non-Infrastructure Project List
Appendix G: Corridor Routes
Appendix H: Project List Assumptions

Appendix A: Caltrans Guide to Bikeway Classification

A GUIDE TO

Bikeway Classification

JULY 2017

Path

Class I bikeways, also known as bike paths or shared-use paths, are facilities with exclusive right of way for bicyclists and pedestrians, away from the roadway and with cross flows by motor traffic minimized. Some systems provide separate pedestrian facilities.

Class I facilities support both recreational and commuting opportunities. Common applications include along rivers, shorelines, canals, utility rights-of-way, railroad rights-of-way, within school campuses, or within and between parks.

REFERENCE: HDM INDEX 1003.1; CAMUTCD SECTION 9C.03

Vine Trail, Napa Valley

Bay Bridge Trail, Oakland

Bike Lane

Class II bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel. Bike lanes are one-way facilities, typically striped adjacent to motor traffic travelling in the same direction. Contraflow bike lanes can be provided on one-way streets for bicyclists travelling in the opposite direction.

REFERENCE: HDM INDEX 301.2; CAMUTCD SECTION 9C.04

State Route 12, the Springs Region of Sonoma

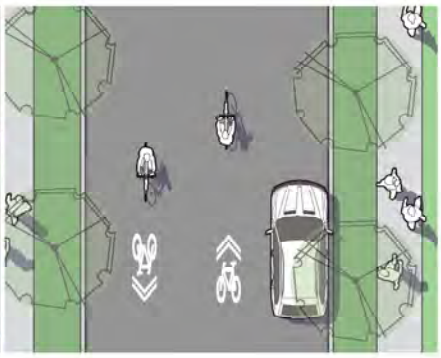
Buffered Bike Lane

A buffered bike lane provides greater separation from an adjacent traffic lane and/or between the bike lane and on-street parking by using chevron or diagonal markings. Greater separation can be especially useful on streets with higher motor traffic speeds or volumes.

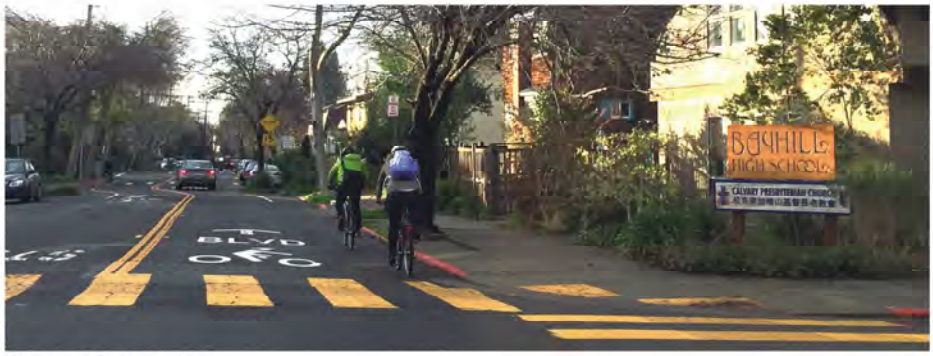
REFERENCE: CAMUTCD SECTION 9C.04, FIGURE 9C-104(CA); NACTO URBAN BIKEWAY DESIGN GUIDE/ BIKE LANES/ BUFFERED BIKE LANES

Sloat Blvd, State Route 35, San Francisco

CLASS III BIKEWAY



2nd St, Oakland



Milvia St, Berkeley

Bike Route

Class III bikeways, or bike routes, designate a preferred route for bicyclists on streets shared with motor traffic not served by dedicated bikeways to provide continuity to the bikeway network. Bike routes are generally not appropriate for roadways with higher motor traffic speeds or volumes. Bike routes are established by placing bike route signs and optional shared roadway markings (sharrow) along roadways.

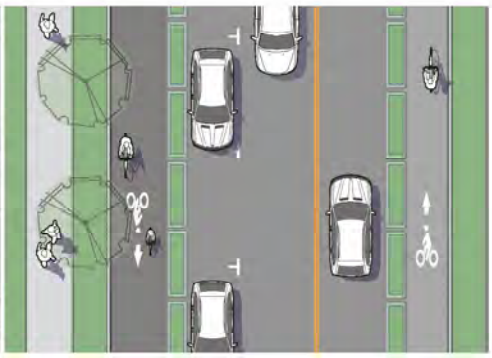
REFERENCE: HDM INDEX 1003.3; CAMUTCD SECTION 9C.07

Bicycle Boulevard

A Bicycle Boulevard is a shared roadway intended to prioritize bicycle travel for people of all ages and abilities. Bicycle Boulevards are typically sited on streets without large truck or transit vehicles, and where traffic volumes and speeds are already low, or can be further reduced through traffic calming.

REFERENCE: NACTO URBAN BIKEWAY DESIGN GUIDE/ BICYCLE BOULEVARDS; CAMUTCD SECTION 9C.07

CLASS IV BIKEWAY



Fulton St, Berkeley

Division St, San Francisco

Separated Bikeway/ Cycle Track

A Class IV separated bikeway, often referred to as a cycle track or protected bike lane, is for the exclusive use of bicycles, physically separated from motor traffic with a vertical feature. The separation may include, but is not limited to, grade separation, flexible posts, inflexible barriers, or on-street parking. Separated bikeways can provide for one-way or two-way travel.

By providing physical separation from motor traffic, Class IV bikeways can reduce the level of stress, improve comfort for more types of bicyclists, and contribute to an increase in bicycle volumes and mode share.

REFERENCE: CALTRANS DESIGN INFORMATION BULLETIN 89 – CLASS IV BIKEWAY GUIDANCE; FHWA SEPARATED BIKE LANE PLANNING AND DESIGN GUIDE; NACTO URBAN BIKEWAY DESIGN GUIDE/ CYCLE TRACKS

Appendix B: Level of Traffic Stress Criteria for Road Segments

Level of Traffic Stress Criteria for Road Segments, version 2.0, June, 2017

Mixed traffic criteria

Number of lanes	Effective ADT*	Prevailing Speed ≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+mph
Unlaned 2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-8000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	8001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	any ADT	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

* Effective ADT = ADT for two-way roads; Effective ADT = 1.5*ADT for one-way roads

Bike lanes and shoulders not adjacent to a parking lane

Number of lanes	Bike lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
3+ lanes per direction	any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

Notes 1. If bike lane / shoulder is frequently blocked, use mixed traffic criteria.
2. Qualifying bike lane / shoulder should extend at least 4 ft from a curb and at least 3.5 ft from a pavement edge or discontinuous gutter pan seam
3.Bike lane width includes any marked buffer next to the bike lane.

Bike lanes alongside a parking lane

Number of lanes	Bike lane reach = Bike + Pkg lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph
1 lane per direction	15+ ft	LTS 1	LTS 2	LTS 3
	12-14 ft	LTS 2	LTS 2	LTS 3
2 lanes per direction (2-way)	15+ ft	LTS 2	LTS 3	LTS 3
2-3 lanes per direction (1-way)		LTS 2	LTS 3	LTS 3
other multilane		LTS 3	LTS 3	LTS 3

Notes 1. If bike lane is frequently blocked, use mixed traffic criteria.
2. Qualifying bike lane must have reach (bike lane width + parking lane width) ≥ 12 ft
3.Bike lane width includes any marked buffer next to the bike lane.

Appendix C: Infrastructure Project List

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Addl Features	Jan 2019 Facility Cost Estimate/mi	Jan 2019 Facility Cost OH	Jan 2019 Addl Feature Cost Estimate	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10 years
A SHOVEL-READY CURRENTLY FUNDED HIGH-PRIORITY PROJECTS												
82	Esplanade	E 11th Ave to Memorial Way	none	Protected Lane	Funded	500,000			$ 7,000,000.00	New	1.19	A
106	Oleander Ave	E 10th Ave to E 6th Ave	Bike Route	Bike Lane		21120	5,000		$ 12,106.48	New	0.34	A
107	Oleander Ave	E 6th Ave to E 1St Ave	Bike Route (to	Bike Lane	x E 1st Ave	21120	5,000	50,000	$ 63,904.36	New	0.42	A
42	Bikeway 99 Phase 5	Teichert Ponds to Walmart	none	Multi-Use Path	Bridge, w/ATP 5	500,000			$ 15,464,000.00	New	0.47	A
101	Humbolt Rd	Morning Rose Way (ElMonte) to Bruce Rd	none	Multi-Use Path	x Bruce	500,000		50000	$ 305,000.00	Previous Plan	0.51	A
10	Bikeway 99 Phase 4	Skyway to Existing Path @SW corner of Walmart	none	Multi-Use Path	Under construction	500,000			$ 750,000.00	New	0.74	A
113	10th/Esplanade	11th to Oleander	Bike Route	Bike Lane		21120	5,000		$ 8,635.53	New	0.17	A
149	Esplanade (w 213, 243)	W 11th Ave to East Ave	none	Bike Lane		21120	7500		$ 30,520.80	Previous Plan	1.09	A
71	Oleander Ave	E 1St Ave to Memorial Way	Route/none	Bike Boulevard	X E 1st, Mem Way, ATP	21120	5000		$ 13,561.82	New	0.41	A
14	Bikeway 99 connector	Bikeway 99 to Forest Ave @ Talbert	none	Multi-Use Path	x Talbert	500,000		25000	$ 115,000.00	New	0.18	A
77	Bruce Rd	Hwy 32 to Remington Dr	Connector	Bike Lane	X Hwy 32	21120	7500	50,000	$ 71,310.96	Previous Plan	0.65	A
69	Little Chico Creek Bridge/20th Park Pth	Humboldt Ave to 20th St Park, Ohio St entrance	none/dirt	Multi-Use Path	Bridge	500,000		250000	$ 2,140,000.00	New	0.33	A
2	Comanche Creek Phase II	Midway to Meyers Ind Park, Estes connection	none	Multi-Use Path		500,000			$ 1,662,000.00	New	0.55	A
A SHOVEL-READY CURRENTLY FUNDED HIGH-PRIORITY PROJECTS Cost estimate subtotal									$ 27,636,039.95			
B HIGH-FEASIBILITY UNFUNDED PROPOSED PROJECTS												
235	Wayfinding Project Study/Design	City-wide	limited	Design					$ 25,000.00	New		B
236	Wayfinding Project	City-wide	limited	Signage					$ 1,000,000.00	New		B
48	Salem St	W 1St St to W 2nd St	Connector	Bike Boulevard		21120	5000		$ 6,184.47	Previous Plan	0.06	B
40	Cherry St	Rio Chico Way to W 1St St	Connector	Bike Boulevard		21120	5000		$ 6,365.07	Previous Plan	0.06	B
47	Cypress St	E 4th St to E 12th St	none	Buffered Lane	x-parking one side	21120	7,500	25,000	$ 45,272.85	New	0.60	B
46	Pine St	E 3rd St to E 12th St	none	Buffered Lane	x-parking one side	21120	7,500	25,000	$ 45,838.36	New	0.63	B
22	W 2nd	Oak St to Walnut St/Hwy 32	none	Bike Lane	cross Hwy 32?	21120	5,000	50,000	$ 56,430.92	New	0.07	B
21	Mulberry St	E 12th St to E 20th St	none	Bike Lane		21120	5,000		$ 14,274.64	New	0.44	B
209	Cedar St	1st St to 9th St	None	Bike Boulevard		21120	5000		$ 13,025.60	New	0.38	B
27	E 16th St	Mulberry St to Elm St	none	Bike Boulevard		21120	5000		$ 9,079.41	New	0.19	B
181	Ivy St	9th St to W 12th St	none	Bike Boulevard		21120	5000		$ 9,224.00	New	0.20	B
158	Floral Ave	Manzanita Ave to Calla Ln	Connector	Bike Boulevard	x Manzanita	21120	5000	25000	$ 35,015.96	Previous Plan	0.24	B
140	Tom Polk/White Ave/Alba Ave (w	East Ave to Alba Road End	Bike Route	Bike Boulevard		21120	5000		$ 11,209.45	Previous Plan	0.29	B
37	E 12th St	Nelson to Boucher	none/conn	Bike Boulevard		21120	5000		$ 13,659.20	Previous Plan	0.41	B
79	W 4th Ave	Arcadian Ave to UP Path @ Cedar St	Connector	Bike Boulevard		21120	7500		$ 20,641.16	Previous Plan	0.62	B
130	Hooker Oak Ave	Crister Ave to Manzanita Ave	none	Bike Boulevard	x Manz, x Madrone	21120	7500	50,000	$ 82,065.05	New	1.16	B
129	E 5th Ave	Mangrove to Manzanita Ave	Bike Route	Bike Boulevard	X Mangrove	21120	7500	50,000	$ 85,589.60	Previous Plan	1.33	B
156	Ceres Ave	Manzanita Ave to E Eaton Rd	Connector/Ro	Bike Boulevard	x East Ave	21120	10000	50,000	$ 98,373.60	Previous Plan	1.82	B
44	4th St (w #52, 214)	Salem to Wall	Connector	Bike Boulevard		21120	5000		$ 5,401.28	Previous Plan	0.02	B
134	Calla/Mariposa/Arlington	Floral Ave to Ceanothus Ave	Bike Route	Bike Boulevard		21120	7500		$ 19,604.19	Previous Plan	0.57	B
36	3rd St (w/ #56,215)	Flume to Salem	Connector	Bike Boulevard	X Main, Bwy	21120	7500	50,000	$ 70,012.82	New	0.59	B
78	Bruce Rd Path	Sierra Sunrise to Skyway, on west side	Connector	Multi-Use Path	X 32,20th, Skyway	500,000		150000	$ 1,195,000.00	Previous Plan	2.09	B
16	Oak St	Oak Park Ave to W 9th St	Bike route	Bike Boulevard		21120	7500		$ 18,209.57	Previous Plan	0.51	B
9	Forest Ave	Notre Dame Blvd to Skyway	Connector	Bike Lane		21120	5,000		$ 12,566.11	Previous Plan	0.36	B
183	Orange	3rd St to 4th St	none	Bike Boulevard		21120	5000		$ 8,168.00	New	0.15	B
39	Broadway (w/#26)	W 2nd St to Main St/Park Ave	none	Buffered Lane	Road diet, x-pk, x5,8,9th	31,680	7,500	150000	$ 174,553.19	New	0.54	B

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Addl Features	Jan 2019 Facility Cost Estimate/mi	Jan 2019 Facility Cost OH	Jan 2019 Addl Feature Cost Estimate	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10 years
26	Main St (w/#39)	E 1St St to Park Ave	none	Buffered Lane	Road diet, x-pk, x5,8,9th	31680	7,500	150000	$ 181,102.04	New	0.75	B
141	Lassen Ave	Cussick Ave to Esplanade	Bike Route	Bike Boulevard		21120	7500		$ 20,594.40	Previous Plan	0.62	B
144	North Ave	Lupin Ave to Manzanita Ave	none	Bike Boulevard	x East	21120	7500	50,000	$ 80,871.54	New	1.11	B
67	Memorial Way	Vallombrosa Ave to Esplanade	Bike Route	Bike Lane		21120	5,000		$ 10,961.48	Previous Plan	0.28	B
56	E 3rd St (w #36, 215)	Pine St to Flume St	Connector	Buffered Lane	x Pine	31680	5000	50000	$ 61,336.00	New	0.20	B
52	E 4th St (w #44, 214)	Wall St to Cypress/Woodland Sts	Connector	Buffered Lane		31680	5000		$ 15,454.40	New	0.33	B
135	Path extending Lombard Lane	Lombard Ln to Airport Bike Path	none	Multi-Use Path	ROW/easement	500,000		200000	$ 255,948.00	New	0.11	B
103	Magnolia Ave	W 8th Ave to W 9th Ave	Connector	Bike Boulevard		21120	5000		$ 6,740.33	Previous Plan	0.08	B
55	E 7th St	Main St to Woodland Ave	Bike Route	Bike Boulevard	x Main St	21120	7500	25,000	$ 51,572.82	Previous Plan	0.90	B
66	Cypress St (w/ #47)	4th to 3rd St	none	Bike Lane	X Cypress	21120	5,000	50,000	$ 58,608.67	New	0.17	B
72	W 8th Ave	Nord Ave to West Sac	none	Bike Lane	X Nord	21120	5,000	50,000	$ 62,603.20	New	0.36	B
15	16th St	Hemlock St to Salem St	Connector	Bike Boulevard	Cross Park Ave	21120	5000	50,000	$ 62,342.03	Previous Plan	0.35	B
12	W 20th St	Ivy to Normal	Connector	Bike Boulevard		21120	5000		$ 10,491.20	Previous Plan	0.26	B
215	E 1St Ave (w/ # 120)	Kentfield to Village	none	Bike Lane	Intersection	21,120	5,000	50000	$ 56,267.20	New	0.06	B
207	W 20th St	Salem to Park	Connector	Bike Boulevard		21120	5000		$ 9,224.00	New	0.20	B
200	Marigold	East to Hancock Park	none	Bike Lane	x East	21120	7500	50,000	$ 72,072.80	New	0.69	B
117	Sherman Ave (w # 174)	E 1st Ave to E Lindo Ave	Connector/Ro	Bike Boulevard	X 1st Ave	21120	7500		$ 19,960.80	Previous Plan	0.59	B
243	Esplanade	Bodero Ln to Syc/Mud Cr	none	Bike Lane	x Nord	21120	7500	50000	$ 77,141.60	New	0.93	B
174	Mildred, Marg, Macy (w/ #117)	E 1st Ave to Palmetto	none	Bike Boulevard		21120	5000		$ 10,491.20	New	0.26	B
261	Notre Dame	20th St to El Monte	none	Bike Lane	Bridge	21120	5000	200000	$ 214,292.80		0.44	B
75	Vallombrosa Way	Peterson Memorial Way to Vallombrosa Ave	Connector	Bike Boulevard		21120	5000		$ 5,855.28	Previous Plan	0.04	B
160	Floral Ave	Glenshire Ln to Whitewood Way	Connector	Bike Lane		21120	5000		$ 7,638.31	Previous Plan	0.12	B
43	Mill St	Humboldt Ave to E 12th St	Connector	Bike Boulevard	x LCC	21120	5000		$ 7,980.45	Previous Plan	0.14	B
137	Patricia Dr	Ceres Ave to Floral Ave	Bike Route	Bike Boulevard		21120	5000		$ 10,292.06	Previous Plan	0.25	B
159	Floral Ave	Calla Dr to East Ave	Connector/Ro	Bike Boulevard	x East	21120	5000	50,000	$ 60,912.71	Previous Plan	0.28	B
120	Manchester rd/Kentfield Rd (w/#215)	E 5th Ave to E 1St Ave	Bike Route	Bike Boulevard	x E 1st Ave	21120	5000	50,000	$ 62,720.67	Previous Plan	0.37	B
45	Boucher St	Humboldt Ave to E 16th St	Connector	Bike Boulevard	x LCC	21120	5000		$ 12,794.19	Previous Plan	0.37	B
41	Cleveland Ave	Boucher St to E 16th St/Chapman School	none	Bike Boulevard		21120	5000		$ 13,544.94	New	0.40	B
60	Humboldt Ave	Olive St to Clover St @10th St	Connector	Bike Boulevard	? traffic calming	21120	7500	50,000	$ 70,346.94	Previous Plan	0.61	B
131	Cussick Ave	W East Ave to W Shasta Ave	Connector	Bike Boulevard	X W East	21120	7500	50,000	$ 70,615.82	Previous Plan	0.62	B
76	Vallombrosa Way/Peterson Mem	CARD ctr culdesac to Hwy 99	Route/path?	Bike Boulevard	repave 10ft bike portion	21120	7500	41020.68	$ 62,959.96	Previous Plan	0.68	B
112	Peterson Memorial Way	Hwy 99 to Salishan Ct @ Vallombrosa Ave	Bike Route	Bike Boulevard	repave 10ft bike portion	21120	10000	121100.04	$ 173,727.25	Previous Plan	2.02	B
127	Yosemite Dr (w/#246, 247)	California Park Dr to Idylwild	Connector	Bike Lane		21120	7500		$ 16,581.60	Previous Plan	0.43	B
17	Hemlock St	W 12th St to E 20th St	Bike route	Bike Boulevard		21120	5000		$ 15,044.21	Previous Plan	0.48	B
216	Hartford Dr	Forest to Notre Dame	none	Bike Boulevard		21120	5000		$ 11,969.60	New	0.33	B
211	Lupin	Cohasset to Eaton	none	Bike Boulevard	x Eaton	21120	5000	25,000	$ 43,305.60	New	0.63	B
232	Chamberlain Run Path	Eaton to Catherine Ct	none	Multi-Use Path	gaps, culv. brdg@Cath	500000		250000	$ 305,000.00	New	0.11	B
213	Esplanade (w 149, 243)	East Ave to Bodero Ln	none	Bike Lane	x Eaton	21120	7500	50,000	$ 86,012.00	New	1.35	B
244	8th, 9th Sts (joint w/CalTrans)	Walnut to BW 99	none	Buffered Lane	ROW, x Bwy, Main, Pine,	31680	7500	525000	$ 576,218.40	New	1.38	B
246	Yosemite Dr	Idylwild to Idylwild	none	Bike Boulevard		21120			$ 6,758.40	New	0.32	B
247	Yosemite Dr	Idylwild to Hwy 32	none	Bike Lane	x SR 32	21120		50000	$ 55,913.60	New	0.28	B
251	Holly Ave	Fuschia to W Lindo	connector	Bike Boulevard		21120	5000		$ 14,926.40	New	0.47	B
148	Panama Ave (w 140, 147)	Emilio Way to Tom Polk Ave	Connector	Bike Boulevard		21120	5000		$ 7,188.81	Previous Plan	0.10	B

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Addl Features	Jan 2019 Facility Cost Estimate/mi	Jan 2019 Facility Cost OH	Jan 2019 Addl Feature Cost Estimate	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10 years
147	Tom Polk Ave (w 140, 148)	East Ave to Panama Ave	Connector	Bike Boulevard		21120	5000		$ 7,613.98	Previous Plan	0.12	B
29	C St	E 16th St to E 20th St	Connector	Bike Boulevard		21120	5000		$ 7,961.24	Previous Plan	0.14	B
61	So-Wil-Len-No Ave	Arcadian Ave to Shasta Way	Connector	Bike Boulevard		21120	5000		$ 8,172.79	Previous Plan	0.15	B
81	N Cherry St	W 6th Ave to W 8th Ave	Connector	Bike Boulevard		21120	5000		$ 8,622.12	Previous Plan	0.17	B
63	Citrus Ave (w/ #195)	Mansion Ave to W Lincoln Ave	Connector	Bike Boulevard		21120	5000		$ 8,767.98	Previous Plan	0.18	B
83	W 6th Ave	Arcadian Ave to N Cherry St	Connector	Bike Boulevard		21120	5000		$ 12,612.81	Previous Plan	0.36	B
30	E 16th St	Elm St to C St	Connector	Bike Boulevard		21120	5000		$ 14,077.48	Previous Plan	0.43	B
28	W 7th St	Oak St to Main St	Bike route	Bike Boulevard	x Hwy 32, Bwy	21120	5000	75,000	$ 89,695.39	Previous Plan	0.46	B
99	Holly/Warner	W 4th Ave to Capshaw	Connector	Bike Boulevard		21120	5000		$ 14,915.38	Previous Plan	0.47	B
68	Lincoln Ave/Arcadian Ave	So-Wi-Len-No Ave to Oleander Ave	Bike Route	Bike Boulevard	X Esplanade, ATP funds?	21120	5000		$ 15,128.26	Previous Plan	0.48	B
58	Olive St	E 3rd St to E 7th St	Connector	Bike Boulevard		21120	7500		$ 19,877.42	Previous Plan	0.59	B
126	Madrone Ave	Vallombrosa Ave to Manzanita Ave	Connector/Bi	Bike Boulevard		21120	7500		$ 21,237.46	Previous Plan	0.65	B
80	Arcadian Ave	W 8th Ave to W Sacramento Ave	Bike Route	Bike Boulevard		21120	7500		$ 21,547.00	Previous Plan	0.67	B
91	E 3rd Ave	Arcadian Ave to Sherman Ave	none	Bike Boulevard	x Esp (ATP), Mangrove	21120	7500	50,000	$ 75,807.49	Previous Plan	0.87	B
119	Cussick Ave (w #111)	W Lindo Ave to Holly Ave	Shows as Bike	Bike Boulevard		21120	5000		$ 7,849.64	Previous Plan	0.13	B
7	W 20th St/Normal Ave/22nd St	Salem St to Ivy St	none	Bike Boulevard		21120	5000		$ 9,344.41	New	0.21	B
3	Fair St	E Park Ave to Hwy 99	none	Bike Boulevard	repave, widen 10 ft	21120	7500	50170.86	$ 75,331.00	New	0.84	B
188	12th Ave	Dixon to Holly	Connector	Bike Boulevard		21120	5000		$ 7,956.80	New	0.14	B
245	CalTrans: SR 32/Nord (joint w/CalTrans)	Muir to 9th St	none	Bike Lane	ROW, x East, Lindo, 8th, W	21120	10000	550000	$ 640,467.20	New	3.81	B
257	DeGarmo	Penzance to Chamberlain Run	none	Bike Boulevard		21120	5000		$ 10,280.00	New	0.25	B
57	Mansion Ave	Arcadian Ave to Citrus Ave	Connector	Bike Boulevard		21120	5000		$ 7,620.59	Previous Plan	0.12	B
123	Manzanita Ct	Mangrove Ave to Hwy 99 Path	Connector	Bike Boulevard	x Cohasset	21120	5000	50,000	$ 60,832.46	Previous Plan	0.28	B
51	Alder St	E 7th St to Humboldt Ave	Connector	Bike Boulevard	x hwy 32 (8,9th)	21120	5000	50,000	$ 63,354.46	Previous Plan	0.40	B
84	Rey Way	Sierra Vista Way to Vallombrosa Ave	Bike route	Bike Boulevard		21120	5000		$ 9,684.35	Previous Plan	0.22	B
115	Crister Ave	Vallombrosa Ave (park entry) to Filbert Ave	Connector	Bike Boulevard	X Vallom	21120	5000	25,000	$ 35,231.95	Previous Plan	0.25	B
180	Pomona Ave	Miller Ave/5th St to Dayton Rd	none	Bike Boulevard		21120	5000		$ 10,280.00	New	0.25	B
167	Penzance Ave	Culdesac to Degarmo Dr	none/Connec	Bike Boulevard	x Eaton	21120	5000	25,000	$ 35,649.24	New	0.27	B
114	Moss Ave	Karen Dr to Filbert Ave	Bike Route	Bike Boulevard		21120	5000		$ 11,361.53	Previous Plan	0.30	B
86	Sheridan Ave	Palmetto Ave to Vallombrosa Ave	Bike Route	Bike Boulevard		21120	5000		$ 14,661.15	Previous Plan	0.46	B
161	Floral Ave	E Eaton rd to E Lassen Ave	Connector	Bike Lane		21120	5000		$ 15,286.96	Previous Plan	0.49	B
54	Bruce St/Virginia St/Fetter St	Humboldt Ave to Cleveland Ave	Connector	Bike Boulevard		21120	5000		$ 15,347.13	Previous Plan	0.49	B
179	Guynn Ave	W Lindo to Henshaw Ave	Connector	Bike Boulevard	x East, Brdg (FHWA)	21120	5000	25000	$ 40,348.80	New	0.49	B
100	Palmetto Ave	Arbutus Ave to Moss Ave	Connector/la	Bike Boulevard		21120	7500		$ 25,327.10	Previous Plan	0.84	B
96	Filbert Ave	Rey Way to Bryant Ave	Connector	Bike Boulevard		21120	7500		$ 29,298.46	Previous Plan	1.03	B
150	'North Maze': Weymouth, Aurora, W	Penzance to Amber Grove Path at Denali	Connector	Bike Boulevard		21120	7500		$ 37,661.64	Previous Plan	1.43	B
190	Chamberlain Run Rd	Nord to Eaton	none	Multi-Use Path	close gaps, x Eaton	500,000		50000	$ 100,000.00	New	0.44	B
202	Middletown Ave	Syc creek path to Marigold	none	Bike Boulevard		21120	5000		$ 10,068.80	New	0.24	B
201	Valley Forge Dr	Syc creek path to Marigold	none	Bike Boulevard		21120	5000		$ 11,336.00	New	0.30	B
222	Lakewest Dr	Bruce to Idylwild	none	Bike Boulevard	x Bruce	21120	5000	25000	$ 36,336.00	New	0.30	B
220	Potter Road (w/199)	20th St to Picholine	none	Bike Boulevard	(LCC bridge separate)	21120	5000		$ 14,926.40	New	0.47	B
223	Idylwild loop	Yosemite to Yosemite	none	Bike Boulevard		21120	7500		$ 27,986.40	New	0.97	B
196	Nord Hwy	Esplanade to County line	none	Bike Lane	ROW	21120	7500	100,000	$ 118,482.40	New	0.52	B
65	Ohio St	Bruce St to Guill St	none	Bike Boulevard		21120	5000		$ 7,745.60	New	0.13	B

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258	Bamboo Orchard	Antelope Creek to DeGarmo	none	Bike Boulevard		21120	5000		$ 7,534.40	New	0.12	B
35	D St	Cleveland Ave to E 16th St	Connector	Bike Boulevard		21120	5000		$ 6,753.78	Previous Plan	0.08	B
164	Champlain Way	Coach Lite Dr to Existing Path connecting to St Lawrence	Connector	Bike Boulevard		21120	5000		$ 7,484.66	Previous Plan	0.12	B
32	Elm St	E 12th St to E 16th St	Connector	Bike Boulevard		21120	5000		$ 7,842.16	Previous Plan	0.13	B
163	Saratoga Dr	Boston Dr to Hancock Dr	Connector	Bike Boulevard		21120	5000		$ 8,342.49	Previous Plan	0.16	B
87	Meadow Rd	W 8th Ave to W 11th Ave	Bike route	Bike Boulevard		21120	5000		$ 9,857.54	Previous Plan	0.23	B
93	Moyer, Trenta	W Lindo Ave to 11th Ave	none	Bike Boulevard		21120	5000		$ 14,081.60	New	0.43	B
152	Bay Ave	Catherine Ct to Bell Rd	none	Bike Boulevard		21120	7500		$ 25,753.85	New	0.86	B
155	Sycamore Creek Path/Trail Phase 1 (w/ #	Existing path @ Middletown Ave to 5-Mile Upper Park	dirt path/leve	Multi-Use Path		500,000			$ 748,055.00	New	1.50	B
226	Estes Ave	Extend from Ivy (proj #7) to Normal	none	Bike Boulevard		21120			$ 2,745.60	New	0.13	B
53	Baroni Dr (w/62, 215)	Picholine Way to Remington	Connector/no	Bike Boulevard		21120	5000		$ 8,379.20	Previous Plan	0.16	B
62	Picholine (w/53, 215)	Bruce to Baroni	Connector	Bike Boulevard		21120	5000		$ 9,012.80	Previous Plan	0.19	B
125	E Lindo Ave	BW 99 to Downing Ave	Bike Route	Bike Boulevard		21120	5000		$ 9,977.79	Previous Plan	0.24	B
59	Legion Ave	Arcadian Ave to Warner St	Connector	Bike Lane		21120	5,000		$ 10,519.73	Previous Plan	0.26	B
212	Remington, Zachary, England, Lawler/	Baroni Dr to E 20th	none	Bike Boulevard		21120	5000		$ 11,124.80	New	0.29	B
218	Muir Ave (w/County, w/136)	Bell Rd to W Eaton Ext	none	Bike Boulevard	x Eaton	21120	7500	25,000	$ 44,116.00	New	0.55	B
221	Centenial/Chico Canyon (w/County)	Manzanita to Bruce	none	Bike Boulevard	x Manz, x Bruce	21120	10000	50000	$ 97,171.20	New	1.76	B
219	Alamo (w/County, w/122)	Shady Acres to Henshaw	none	Bike Lane		21120	5,000		$ 6,478.40	New	0.07	B
217	Nord Ave (not SR 32)	Henshaw to East Ave	none	Bike Boulevard	x East	21120	5000	25000	$ 35,702.40	New	0.27	B
239	Morseman Ave	Eaton to Lassen	none	Bike Boulevard	x Lassen, x East	21120	10000	25,000	$ 52,740.80	New	0.84	B
253	Hayfork Creek	Rogue River to DeGarmo	none	Bike Boulevard		21120	5000		$ 6,478.40	New	0.07	B
254	Niles Canyon	Rogue River to Syc Creek MUP	none	Bike Boulevard		21120	5000		$ 7,745.60	New	0.13	B
105	Karen/Palmetto/Bryant/ Hillview/Downing	Moss Ave to Filbert Ave	Connector	Bike Boulevard	(palmetto done)	21120	7500		$ 18,327.97	Previous Plan	0.51	B
128	Mission Ranch Blvd	Esplanade to Holly Ave	Connector	Bike Boulevard	x Esp	21120	7500	50,000	$ 68,908.14	Previous Plan	0.54	B
252	Rogue River	Chamberlin Run to street end	none	Bike Boulevard		21120	7500		$ 23,128.80	New	0.74	B
102	Cedar Grove Way	E 8th to South Park Dr	none	Bike Boulevard		21120	5,000		$ 6,604.53	Previous Plan	0.08	B
B HIGH-FEASIBILITY UNFUNDED PROPOSED PROJECTS Cost estimate subtotal									$ 9,188,109.13			
C MEDIUM-TERM PROJECTS WITH KNOWN COST OR IMPLEMENTATION CHALLENGES												
116	9th Ave	Magnolia to Sherman Ave	Connector	Bike Lane	xEsp wATP, xMang	21120	7500	50,000	$ 74,695.52	Previous Plan	0.81	C
13	20th St @Park	Intersection treatment across Park	none	Bike Lane	Intersection only	21120	5,000	50000	$ 55,360.73	Previous Plan	0.02	C
204	4th St (w #44, 52)	Orange to Salem	none	Bike Lane		21120	5,000		$ 13,236.80	New	0.39	C
203	3rd St (w/#36, 56)	Salem to Oak	none	Bike Lane	x Hwy 32	21120	7500	50000	$ 69,960.80	New	0.59	C
90	E 1St Ave	Hwy 99 to Kentfield	None	Bike Lane	widen, x parking	21120	7500	66224.86	$ 88,236.01	New	0.69	C
165	W Eaton rd (w/139, 171)	Catherine Ct to Esplanade	none	Bike Lane		21120	7500		$ 29,046.20	Previous Plan	1.02	C
172	Bikeway 99 Path	Sycamore/Mud Creek Path south to BW 99 south of	none	Multi-Use Path		500,000			$ 639,633.50	New	1.28	C
24	12th St	Salem St to Nelson St	Connector	Bike Boulevard	x Park	21120	5000	50000	$ 63,511.00	Previous Plan	0.40	C
11	Fair St	E 20th St St to E Park Ave	none	Buffered Lane		31680	7,500		$ 29,416.00	New	0.69	C
8	Salem St	W 9th St to W 20th St	Route/Conne	Bike Boulevard	LANE. FHWA funds bridge	21120	7500		$ 23,656.31	Previous Plan	0.76	C
210	W Sacramento (w/County)	Hampshire Dr to Glenwood/Bidwell Ave	None	Bike Lane		21120	7500		$ 27,775.20	New	0.96	C
162	Lassen Ave	Esplanade to Floral Ave	Bike Route	Bike Lane	x Cohasset, X-parking one	21120	10000	50,000	$ 100,550.40	Previous Plan	1.92	C
151	Amber Grove Petersen Park Path (w/# 193,194)	W Eaton Rd (near Aurora Glen) to Existing path at	none	Multi-Use Path	culv brdg to N of SUDAD	500,000		250000	$ 724,414.50	New	0.95	C
198	Annie Glen Access Path/Bridge	Vall. Way culdesac to Annie Glen path@ South Park Dr	none	Multi-Use Path	And bridge	500,000		250000	$ 295,000.00	New	0.09	C
33	Dr Martin Luther King Jr Pkwy	Chapman Elementary to E Park Ave	Bike lane/rou	Bike Lane		21120	7500		$ 28,058.78	Previous Plan	0.97	C

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Addl Features	Jan 2019 Facility Cost Estimate/mi	Jan 2019 Facility Cost OH	Jan 2019 Addl Feature Cost Estimate	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10 years
171	Eaton Rd	Esplanade to Cohasset	none	Bike Lane	x Esp, Hw 99, Coh	21120	10000	150000	$ 198,877.42	Previous Plan	1.84	C
208	Skyway	Bruce Rd to Potter Rd/SH Path - east side	none	Multi-Use Path		500,000			$ 360,000.00	New	0.72	C
153	Cohasset Rd w/154, 174	Manzanita Ct to East Ave	none	Bike Lane	x parking, widen 10 ft, x	21120	7500	111593.52	$ 131,974.44	New	0.61	C
136	Bell Rd (w/218)	Cussick/Bay Ave to Muir Ave	Connector	Bike Lane	widen 10 ft	21120	7500	64200	$ 94,298.40	Previous Plan	1.07	C
23	Chestnut St	W 2nd St to W 12th St	Bike route	Bike Boulevard	x 8th/9thst	21120	7500	50,000	$ 71,753.00	Previous Plan	0.67	C
259	Native Oak	Yosemite to Water Tower	none	MUP		500000			$ 515,000.00	New	1.03	C
70	South Park Dr	4th St Gate to bollards at ball fields	Connector	Bike Boulevard		21120	7500		$ 18,847.59	Previous Plan	0.54	C
170	E Eaton Rd	E Lassen Ave to Wildwood Roundabout	none/Connec	Bike Lane	4/5ths widen 10 ft	21120	7500	24831.648	$ 43,257.57	Previous Plan	0.52	C
255	W 16th St	Salem Ave to Barber MUP	none	Bike Boulevard		21120	5000		$ 14,504.00	New	0.45	C
256	Gallatin, Gibson Landing	Floral/Eaton to Syc Cr MUP	none	Bike Boulevard		21120	5000		$ 11,969.60	New	0.33	C
260	BW 99 extend south	Skyway to Southgate	none	Bike Lane		21120	7500		$ 19,327.20	New	0.56	C
111	Dixon St	W 12th Ave to W Lindo Ave	Connector	Bike Boulevard		21120	5000		$ 11,175.87	Previous Plan	0.29	C
206	Humbolt Rd (w/County)	Bruce Rd to top Hwy 32	Bike Route	Bike Lane		21120	10000		$ 84,976.00	New	3.55	C
95	BW 99 Gap Closure Path at Sierra Vista	BW 99 cut through - Sierra Vista Way to Palmetto Ave	none	Multi-Use Path	ROW/easement	500,000		200000	$ 267,749.50	New	0.14	C
143	Extend Emilio Way to White (replaces 140,	Panama Ave to White Ave	none	Multi-Use Path	ROW/easement	500,000		100000	$ 241,071.00	New	0.28	C
194	SUDAD Path	Bay Ave to Penzance	none	Multi-Use Path	culv brdg @ Penzance	500,000		25000	$ 80,000.00	New	0.11	C
193	Catherine Ct	Mud Cr Path to Bay	none	Multi-Use Path	x Eaton	500,000		50000	$ 410,000.00	New	0.72	C
173	Hicks Ln (w/County)	E Eaton Rd to Spyglass Rd	none	Bike Lane	x Eaton	21120	10000	25,000	$ 79,352.00	New	2.10	C
85	W Lindo Ave	Nord Ave to Trenta Dr	Connector	Bike Lane	X Nord	21120	5,000	50,000	$ 58,024.17	Previous Plan	0.14	C
138	W Shasta Ave (w/# 150)	Camelot Ct to Cussick/Bay Ave	none/Connec	Bike Lane		21120	5,000		$ 8,851.95	Previous Plan	0.18	C
189	Sycamore Dr	Hicks to Sycamore Creek	none	Bike Lane		21120	7500		$ 18,271.20	New	0.51	C
157	Wildwood Ave	WW Roundabout to Cross Trailhead Parking	Connector	Bike Lane	widen 10 ft	21120	7500	61955.28	$ 91,263.54	Previous Plan	1.03	C
199	Potter Bridge (w/220)	Potter to Potter in Doe Mill Dev	none	Multi-Use Path	Bridge	500,000		250000	$ 270,000.00	New	0.04	C
50	Bikeway 99 Connector	Bikeway 99 to Springfield Dr	none/dirt	Multi-Use Path	gap closure only	500,000			$ 85,934.00	New	0.17	C
175	Sycamore/Mud Creek Path (w/155, 166, 176)	Hwy 99 to Floral	none/dirt pat	Multi-Use Path	ROW	500,000		400,000	$ 1,177,241.50	New	1.55	C
176	Sycamore/Mud Creek Bike Path (w/155, 166,	Catherine Ct to Hwy 99	none	Multi-Use Path		500,000			$ 1,368,398.00	New	2.74	C
5	Meyers/Ivy St	Park Ave to W 22nd St	Connector	Bike Lane	x-parking one side	21120	7500	25,000	$ 45,738.97	Previous Plan	0.63	C
230	Otterson Dr	Hegan Lane to Comanche Creek path	none	Bike Lane		21120			$ 10,137.60	New	0.48	C
231	Huss/Aztec	Hegan Lane to Otterson Dr	none	Bike Lane		21120			$ 8,236.80	New	0.39	C
195	Citrus Ave (w/ #63)	Lincoln Ave to West Sac	none	Multi-Use Path	Access @CHS	500,000		200000	$ 265,000.00	New	0.13	C
197	Upper Park Road	Rod and Gun Club to gate	none	Protected Lane		500,000			$ 15,000.00	New	0.03	C
250	Dominic	Skyway to Morrow Dr	none	Bike Boulevard	X skyway	21120	5000	50000	$ 61,969.60	New	0.33	C
122	Henshaw Ave (w/219)	Cussick Ave to Nord Ave	none	Bike Lane		21120	7500		$ 24,020.57	New	0.78	C
225	Glenwood (w/County)	West Sac to Hwy 32	none	Bike Lane	x Hwy 32	21120	7500	50,000	$ 72,072.80	New	0.69	C
184	Player Lane (w/ #182)	Estates Dr to Southgate	Connector	Protected Lane	w/dev	31680	7,500		$ 39,496.80	New	1.01	C
182	Southgate path (w/County, w/ #184)	End of Southgate to Midway Path	none	Multi-Use Path		500,000			$ 400,000.00	New	0.80	C
C MEDIUM-TERM PROJECTS WITH KNOWN COST OR IMPLEMENTATION CHALLENGES Cost estimate subtotal									$ 8,936,342.85			
D TRANSFORMATIVE PROJECTS WITH SIGNIFICANT COST OR IMPLEMENTATION CHALLENGES												
214	Esplanade	Bodero Ln to Syc/Mud Cr	none	Multi-Use Path	x Eaton	500,000		50000	$ 515,000.00	Previous Plan	0.93	D
145	East Ave	White Ave to Mariposa Ave	none	Protected Lane	x parking, widen	500,000		181000	$ 856,000.00	Previous Plan	1.35	D
94	Arbutus Ave	Vallombrosa Ave to E 9th Ave	Connector	Bike Boulevard	x 1st Ave, x 5th Ave	21120	7500	50000	$ 80,968.82	Previous Plan	1.11	D
233	Esplanade	11th St to Bodero	(bike lane)	Protected Lane	ROW, widen, x Coh, East,	500000		646400	$ 1,866,400.00	New	2.44	D
234	Cohasset	Manzanita Ct to Eaton	(bike lane)	Protected Lane	ROW, widen, x Manz	500000		599000	$ 1,424,000.00	New	1.65	D

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Addl Features	Jan 2019 Facility Cost Estimate/mi	Jan 2019 Facility Cost OH	Jan 2019 Addl Feature Cost Estimate	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10 years
31	Bidwell Ave extension	Bidwell Pl to Hwy 32	Connector/di	Bike Boulevard	ROW/easement	21120	5000	100,000	$ 111,969.60	New	0.33	D
92	W 11th Ave	Esplanade to Moyer	none	Bike Lane	X Esp wATP	21120	7500		$ 31,788.00	New	1.15	D
97	Mangrove Ave	Manzanita Ct to Vallombrosa Ave	none	Protected Lane	widen, x parking,	500000		500000	$ 1,191,529.50	New	1.38	D
132	Lindo Channel (w #124, 133)	Hwy 99 to Longfellow Ave	none/Manz b	Multi-Use Path	ROW/easement	500,000		200000	$ 623,219.00	New	0.85	D
133	Lindo Channel (w/ 124, 132)	Longfellow Ave to Syc Cr Path @UpPark	none/Manz b	Multi-Use Path	x Manz, ROW/ease	500,000		225000	$ 1,065,000.00	New	1.68	D
124	Lindo Channel (with #132, 133)	Nord Ave to Hwy 99	none	Multi-Use Path		500,000			$ 1,418,894.50	New	2.84	D
146	East Ave	El Paso Way to White Ave	none	Protected Lane	x parking, widen	500,000		500000	$ 585,000.00	Previous Plan	0.17	D
25	Park Ave	Main St to E 20th St	none	Protected Lane	x-park, x H32,16, 20th	500,000		225000	$ 563,825.50	New	0.68	D
238	Little Chico Creek Path East	Existing path @Bruce to end Picholine/County	none	Multi-Use Path	ROW	500000		400000	$ 725,000.00	New	0.65	D
139	W Eaton Rd Ext (w/Cty, w165, 171)	Hwy 32 to Catherine Ct	none	Protected Lane		500000		79701.18	$ 743,877.68	New	1.33	D
248	Main St (w/#?)	E 1St St to Park Ave	none	Protected Lane	ROW, x1st thru 9th Sts	500000		1150000	$ 1,522,507.00	New	0.75	D
249	Broadway St (w/#?)	E 1St St to Park Ave	none	Protected Lane	ROW, x1st thru 9th Sts	500000		1150000	$ 1,522,507.00	New	0.75	D
237	Little Chico Creek Path West	County line/Pomona Ave to Existing path @SR 99	none	Multi-Use Path	ROW	500000		400000	$ 1,400,000.00	New	2.00	D
88	E 1St Ave	Warner St to Mangrove Ave	none	Bike Lane	wide 10 ft, x Espl(wATP),	21120	7500	106165.1	$ 133,435.22	New	0.94	D
98	Holly/Warner Connector	Capshaw to Fuschia Way (near W 8th Ave)	dirt path	Multi-Use Path	ROW/easement	500,000		200000	$ 453,365.50	Previous Plan	0.51	D
73	W Sacramento Ave	Esplanade to Warner St	Connector/no	Bike Lane	X Esplanade (w ATP)	21120	5,000		$ 13,991.23	Previous Plan	0.43	D
89	E 1St Ave	Mangrove Ave to Hwy 99	none	Bike Lane	widen, x parking, X 99	21120	5,000	126465.52	$ 140,781.38	New	0.44	D
224	Dayton Rd (w/County)	Pomona to McIntosh	none	Bike Lane		21120	5,000		$ 7,323.20	New	0.11	D
240	Midway to SR 99 Path	Midway Path at Hegan to SR 99 on old RR ROW	none	Multi-Use Path	ROW	500000		500000	$ 1,000,000.00	Previous Plan	1.00	D
241	SR 99 to Skyway Path (w/County)	SR 99 to Skyway on old RR ROW	none	Multi-Use Path	ROW, bike bridge	500000		550000	$ 1,150,000.00	Previous Plan	1.20	D
242	BIKE BRIDGE over SR 99	East of SR 99 to west of SR 99 @ Entler/Norfield	none	Multi-Use Path	ROW	500000		10,000,000	$ 10,050,000.00	Previous Plan	0.10	D
186	Path (extending Yosemite, w/#212)	Native Oak to Potter Rd	none	Multi-Use Path	ROW, x Humb,brdg	500,000		475000	$ 760,000.00	New	0.57	D
177	HWY 32 UPRR (w/County)	East Ave to W Eaton Rd/Meridian Connection	none	Multi-Use Path		500,000		200000	$ 850,000.00	New	1.30	D
1	Chico River Rd (w/County)	Chestnut to River Rd	none	Bike Lane	repave, widen 10 ft	21120	10000	252950.34	$ 351,988.86	Previous Plan	4.22	D
142	Ceanothus Ave	Manzanita to East Ave	Connector/Rd	Bike Lane	x East	21120	5,000	50000	$ 62,862.30	Previous Plan	0.37	D
168	Hwy 99 x'ing on Eaton or NORD?	W Eaton Rd ramps off Hwy 99 OR Leora to Sycamore	none	Multi-Use Path	REVIEW NEEDED!!	500,000		100000	$ 419,720.50	New	0.64	D
227	Guynn Ave	Henshaw to Bell Rd	none	Bike Lane		21120	7500		$ 22,284.00	New	0.70	D
229	Estes/McIntosh	Dayton Rd to Comanche Creek phase 2 terminus	none	Multi-Use Path	(w/dev)	500000			$ 570,000.00	New	1.14	D
205	PATH (w/ #124)	McDonald/Reed Park to Lindo Channel	none	Multi-Use Path	ROW	500,000		100000	$ 120,000.00	New	0.04	D
178	Butte Cr Diversion Channel (w/COUNTY)	Skyway to Chico Oro Hwy	none	Multi-Use Path		500,000		200000	$ 1,010,000.00	New	1.62	D
228	Ivy St	12th St to Estes	none	Bike Lane	(w/dev)	21120	7500		$ 21,861.60	New	0.68	D
74	PATH	BW 99 to Ridgebrook Way	dirt path	Multi-Use Path		500,000			$ 173,670.50	New	0.35	D
18	Walnut St/Hwy 32 (w/CalTrans)	Bidwell Ave Ext to 9th St	none	Protected Lane	countless - Caltrans	500,000		1000000	$ 1,325,000.00	New	0.65	D
D TRANSFORMATIVE PROJECTS WITH SIGNIFICANT COST OR IMPLEMENTATION CHALLENGES Cost estimate subtotal									$ 34,883,770.88			

Appendix D: Transformative Projects

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10
82	Esplanade	E 11th Ave to Memorial Way	none	Protected Lane	$ 7,000,000.00	New	1.19	A
235	Wayfinding Project	City-wide	limited	Design	$ 25,000.00	New		A
236	Wayfinding Project	City-wide	limited	Signage	$ 1,000,000.00	New		B
39	Broadway	W 2nd St to Main St/Park Ave	none	Protected Lane	$ 174,553.19	New	0.54	B
26	Main St (w/39)	E 1St St to Park Ave	none	Protected Lane	$ 181,102.04	New	0.75	B
214	Esplanade (w 149, 213)	Bodero Ln to Syc/Mud Cr	none	Multi-Use Path	$ 515,000.00	Previous Plan	0.93	D
145	East Ave	White Ave to Mariposa Ave	none	Protected Lane	$ 672,403.44	Previous Plan	1.02	D
233	Esplanade	11th St to Bodero	(bike lane)	Protected Lane	$ 1,866,400.00	New	2.44	D
234	Cohasset	Manzanita Ct to Eaton	(bike lane)	Protected Lane	$ 1,424,000.00	New	1.65	D
97	Mangrove Ave	Manzanita Ct to Vallombrosa Ave	none	Protected Lane	$ 1,191,529.50	New	1.38	D
132	Lindo Channel (w #124, 133)	Hwy 99 to Longfellow Ave	none/Manz	Multi-Use Path	$ 623,219.00	New	0.85	D
133	Lindo Channel (w/ 124, 132)	Longfellow Ave to Syc Cr Path	none/Manz	Multi-Use Path	$ 1,065,000.00	New	1.68	D
124	Lindo Channel (with #132, 133)	Nord Ave to Hwy 99	none	Multi-Use Path	$ 1,418,894.50	New	2.84	D
146	East Ave	El Paso Way to White Ave	none	Protected Lane	$ 1,260,430.00	Previous Plan	1.52	D
25	Park Ave	Main St to E 20th St	none	Protected Lane	$ 563,825.50	New	0.68	D
238	Little Chico Creek Path East	Existing path @Bruce to end	none	Multi-Use Path	$ 725,000.00	New	0.65	D
237	Little Chico Creek Path West	County line/Pomona Ave	none	Multi-Use Path	$ 1,400,000.00	New	2.00	D

Appendix E: Joint Projects

ID	Project Name/Location (Street or route)	Project Limits	Current infrastructure	Proposed Facility Type	Jan 2019 Total Cost Estimate	Past Project Status	Length (miles)	Timeframe: A<2 years B 2-5 yrs C 5-10 years D
Joint with County								
177	HWY 32 UPRR (w/County)	East Ave to W Eaton Rd/Meridian Connection	none	Multi-Use P	$ 850,000.00	New	1.30	D
1	Chico River Rd (w/County)	Miller Ave to River Rd	none	Bike Lane	$ 351,988.86	Previous Plan	4.22	D
139	W Eaton Rd Ext (w/County, w165, 171)	Hwy 32 to Catherine Ct	none	Bike Lane	$ 115,256.00	New	1.33	D
173	Hicks Ln (w/County)	E Eaton Rd to Spyglass Rd		Bike Lane	$ 30,112.00	New	0.53	C
182	Southgate path (w/County, w/ #184)	End of Southgate to Midway Path		Multi-Use P	$ 400,000.00	New	0.80	C
206	Humbolt Rd (w/County)	Bruce Rd to top Hwy 32	Bike Route	Bike Lane	$ 84,976.00	New	3.55	C
218	Muir Ave (w/County, w/136)	Bell Rd to W Eaton Ext	none	Bike Boulev	$ 32,500.00	New	0.55	B
219	Alamo (w/County, w/122)	Shady Acres to Henshaw	none	Bike Lane	$ 5,000.00	New	0.07	C
210	W Sacramento (w/County)	Hampshire Dr to Glenwood/Bidwell Ave	None	Bike Lane	$ 27,775.20	New	0.96	C
225	Glenwood (w/County)	West Sac to Hwy 32	none	Bike Lane	$ 57,500.00	New	0.69	D
241	PATH (w/County)	SR 99 to Skyway on UPRR ROW	none	Multi-Use P	$ 1,150,000.00	Previous Plan	1.20	D
224	Dayton Rd (w/County)	Pomona to McIntosh	none	Bike Lane	$ 5,000.00	New	0.11	D
221	Centenial/Chico Canyon (w/County)	Manzanita to Bruce	none	Bike Boulev	$ 97,171.20	New	1.76	B
Joint with CalTrans								
244	8th, 9th Sts (joint w/CalTrans)	Walnut to BW 99	none	Buffered La	$ 576,218.40	New	1.38	B
245	CalTrans: SR 32/Nord (joint w/CalTrans)	Muir to 9th St	none	Bike Lane	$ 640,467.20	New	3.81	B

Appendix F: Non-Infrastructure Programs and Projects

ID	Project Name/Location (Street or route)	Project Description	Partner(s)	Jan 2019 Total Cost Estimate	Timeframe: A<2 years B 2-5 yrs C 5-10 years D >10
NI1	BikeShare Study	City-wide? Downtown focus		$ 10,000.00	A
NI2	TDM Study	Assesment of strategies to change travel behavior to increase Chico's transport system efficiency		$ 25,000.00	A
NI3	Bike Education and Ticket Diversion	Support county-wide Butte County Public Health Program	Butte County Public Health	minimal	A
NI4	Safe Routes to School	Support ATP-funded county-wide Safe Routes program	Butte County Public Health	TBD	A
NI5	Safe Routes Citrus Elementary	Support ATP-funded project to kick-start a Safe Routes to School program	Butte County Public Health	TBD	A
NI6	Bike Theft Reduction	Expand existing and implement new bike theft programs	Chico Police Department	TBD	A
NI7	Bike Commute Incentive Programs	Encourage major local employers to provide bike commute incentive programs	Local employers	TBD	A
NI8	Bike Month	Support Bike Month in Chico with bike challenges and events	Chico Velo	TBD	A
NI9	Post-Camp Fire Bike Plan review	Revisit Bike Plan project list and recommendations within a year after the Camp Fire		TBD	A
NI10	Safe Routes Chapman Elementary	Support ATP-funded project to kick-start a Safe Routes to School program	Butte County Public Health	TBD	A
NI11	Active Transportation Plan	Incorporate pedestrian and transit planning into the Chico Bicycle Plan to create a Chico Active Transportation Plan		$ 150,000.00	B
NI12	Origin-Destination Studies	Collect data on travel patterns to support or refine project planning and prioritization	Large employers, schools, downtown and retail areas	TBD	B
NI13	BikeShare Implementation	Dependent on study findings		$ 1,000,000.00	B
NI14	Transit First/Last Mile (W/BCAG)	Increase transit use by expediting travel between transit stops and origin/destination	Butte County Association of Governments	TBD	B
NI15	Targeted Enforcement	Expand from ad-hoc to formalized program, increase use of speed feedback signs and trailers	Chico Police Department	TBD	B
NI16	Social Media	Social Media campaign to support Bike safety (intern project?)	CSU Chico	TBD	B

APPENDIX G: CORRIDOR ROUTES

Corridor Routes	Status	From/To	Streets/paths
North-South (orange)		(North to South)	**(North to South)**
32-UPRR	Short term	*Eaton Ext/Mud Cr path (W East) to 9th St	32-Oak/UPRR-Cedar
Bay-Warner	Short term	W Eaton to 12th St	Bay, Cusick, Holly, Warner, Ivy
Esplanade-Salem	Short term	10th Ave to Hegan	Espl/Oleand, Salm, Ivy, Myrs, Cmnche, Ottrsn
Esplanade-Midway	**Long term**	**Syc/Mud Cr to Midway Path**	**Esplanade, Main/B'way, Park, Midway**
BW99	Short term	*County line (Eaton) to *Southgate (Skyway	BW 99
Airport Path	Short term	Esplanade to Sikorsky	Airport Path
Cohasset-Mangrove	**Long term**	**Airport to Pine/Cypress**	**Airport Path, Cohasset, Mangrove**
Arbutus-Fair	Short term	Lupin to *SR99 (Park)	North, Arbutus, Pine/Cypress, Mulberry, Fair
Floral (4th,5th)	Short term	Manzanita to Eaton	Floral (4th, 5th Ave)
Marigold, Madrone, Forest	Short term	Sycamore Path to Skyway	Marigold, Madrone, Forest
Manzanita, Bruce (Eaton)	Short term	Wildwood Round to *Skyway (20th)	Manzanita, Bruce (Eaton)
Yosemite, path, Potter, SH path	Long term	CA Park Dr to Skyway (*gap 32 to 20th)	Yosemite, Stilson path, Potter, SH path
East-West (yellow)		(East to West)	**(East to West)**
Mud Creek-Sycamore Creek	**Long term**	***SR32 (Valley Forge) to Wildwood**	**Mud Creek-Sycamore Creek**
Eaton (Manzanita, Bruce)	Short term	*SR32 (Cath Ct) to Wildwood (St Lawr)	Eaton (Manzanita, Bruce)
Bell-Lassen	Short term	Nord Ave to Floral	Bell, Bay/Cussick, Lassen
East Ave-Upper Bidwell	**Long term**	**SR32 to end Upr Park Rd (*El Paso to Marip**	**East Ave, Wildwood, Upper Park Road**
Lindo Channel	**Long term**	***SR32 to Sycamore path (Upper P)**	**Lindo Channel**
8th Ave, 9th Ave, Manzanita	Short term	W Sac to Madrone	8th, Magnolia, 9th, Manzanita, (Path)
4th Ave, 5th Ave (Floral)	Short term	UPRR to Manzanita	4th Ave, Arcadian Ave, 5th Ave (Floral)
Palmetto	Short term	Arbutus to Manzanita	Vallom, Arbu, Plmto, Moss, Flbrt, Madro, Hook O
Downtown-Bidwell	Short term	Oak St to 5 mile	3rd/4th Sts, Downtown, Bidwell Park Roads
7th St, 8th St, CA Park Dr	Short term	Hickory to Yosemite	7th St, Southpark, 8th St, CA Park Dr
Little Chico Creek	**Long term**	***Pomona Ave to *Stilson Canyon Rd**	**Little Chico Creek**
12th, Humbolt	Short term	Ivy to SR32 (*various gaps)	12th St, Olive, Humbolt
20th	Long term	Normal Ave to Steve Harrison path	20th
Meyers-Skyway	Long term	Meyers to Skyway	Meyers, Park, Skyway

* Indicates future project

Bold indicates Transformative Project

APPENDIX H: PROJECT LIST ASSUMPTIONS

Facilty Type	Costs	Assumptions
Multi-Use Path	$500,000/mile	Assumes 12' asphalt path with drainage and new sub-base. Includes mile markers, bollards, and signage. Cost
Multi-use Bridge	$250,000 each	Assumes 12' wide bridge
Protected Bike Lane	$500,000/mile	Assumes 6.5' one-way cycletrack on both sides of the street with three (3) feet of buffer zone and restriping entire roadway layout. Cost does not include any resulting traffic signal modifications at signalized intersections due to lane reconfiguration.
Bike Lane	$21120/mile, +$5000 for projects up to .5 mile OR $7500 for projects from .5 mile to 1.5 mile OR $10,000 for projects over 1.5 mile	Assumes one-way bike lane on both sides of the street with bike lane symbol every 200', four wayfinding signs per mile and regulatory signs every 400'. Cost does not include any resulting traffic signal modifications or additions.
Bike Boulevard	$21120/mile, +$5000 for projects up to .5 mile OR $7500 for projects from .5 mile to 1.5 mile OR $10,000 for projects over 1.5 mile	Assumes Sharrows every 200', same signage spacing as Bike Lane, one median refuge per mile, 2 sets of curb extensions per mile, speed humps every 800', curb ramp improvements on 3 intersections per mile, and a diverter every 2 miles. Cost does not include any resulting traffic signal modifications or additions.
Cost to widen 5 ft on both sides	$60,000/mile	
Minor intersection treatment	$25000/intersection	Two collectors streets or one collector and one arterial with moderately high volume and/or speed (eg Park Ave and 16h St)
Major intersection treatment	$50,000/intersection	Two major arterials with high volume and speed (eg East Ave and Esplanade)
Scoring Factor	**Scoring Weight**	
School route	2 for Elementary/Jr High, 1 for HS/College	
Reduces LTS to 1 or 2	2 if on key corridor, 1 if on other roadway	
Known Collision Site	2 if multiple crash site, 1 if single crash site	
Gap Closure	2 if on key corridor, 1 if on other roadway	
Feasibility/Cost/Timeframe		
Shovel-ready, funded	A	1-2 year timeframe likely
Shovel-ready, inexpensive	B	2-5 year timeframe likely
Known issues, costly	C	5-10 year timeframe likely
Transformative or major issues	D	10+ year timeframe likely