Chapter 2

RELATIONSHIP TO OTHER PLANS AND POLICIES

Many local, regional, state, and federal plans and other documents were reviewed in development of this ATP. These plans and documents contain goals and policies as well as specific requirements related to active transportation.

LOCAL JURISDICTIONS

Each jurisdiction has its own policies and requirements related to bicycling and walking. The documents containing these policies and requirements include

- existing bicycle and pedestrian plans,
- general plans,
- standard drawings,
- municipal codes, and
- specific plans and other plans.

Specific local plans and documents are discussed in the chapter for each jurisdiction.

REGIONAL

The following regional plans were also important in the development of the ATP:

Fresno Council of Governments Regional Transportation Plan and Sustainable Communities Strategy

The plan's bicycle and pedestrian policies are described extensively in the Non-Motorized Transportation Element. An important component of the 2014 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) is a commitment to complete streets policies and implementation measures. The plan seeks to have every transportation project make the street network safer for pedestrians and bicyclists as well as transit users and drivers. Additionally, the Policy Element contains a number of goals, with supporting objectives and policies, relating directly to walking and bicycling. These goals include

- an efficient, safe, integrated, multimodal transportation system;
- maximize bicycling and walking through their recognition and integration as valid and healthy transportation modes in transportation planning activities;
- safe, convenient, and continuous routes for bicyclists and pedestrians of all types which interface with and complement a multimodal transportation system;
- improved bicycle and pedestrian safety through education and enforcement; and
- increased development of the regional bikeways system, related facilities, and pedestrian facilities by maximizing funding opportunities.

The ATP is consistent with the 2014 RTP/SCS. An update to the RTP/SCS is currently being developed. A map depicting land use for the updated plan's preferred scenario is shown in Figure 2-1

Fresno County Transportation Authority Measure C

In 1986, Fresno County voters passed Measure C, a 20-year, ½-cent sales tax aimed at improving the overall quality of Fresno County's transportation system. In 2006, voters chose to extend Measure C for another 20 years until 2027. The funding allocation programs specifically finance bicycle facilities through several programs:

- **Local Transportation Program**
  - The Pedestrian/Trails Facilities Subprogram (3.10% of total Measure C funding) provides funding for pedestrian/bicycle trail facilities, signage and striping, Master Plan preparation and updates, and other Program-related facilities and support facilities. Measure C specifies certain design criteria for bicycle paths and multi-purpose trails.
  - The Bicycle Facilities Subprogram (0.90% of total Measure C funding) provides funding for significant improvements to the existing and planned bicycle system. Eligible projects include Class II bike lanes, Class III bike routes, Class IV separated bikeways, signage and striping, master plan preparation and updates, and other Program-related facilities and support facilities.
  - The Flexible Funding Category of the Local Allocation Subprogram (14.80% of total Measure C funding) provides funding for any type of transportation project, including bicycle, trail, and pedestrian projects.
- **Alternative Transportation Program**
  - The Rail Consolidation Subprogram (6.00% of total Measure C funding) specifies that should consolidation of the BNSF tracks occur, the land will revert to the City and County of Fresno for trails, bikeways, and pedestrian facilities.

Additionally, Measure C requires that any new highway, expressway, super-arterial, arterial, or collector constructed or reconstructed with Measure C funds include accommodations for pedestrian and bicycle travel. Measure C funds are also being used to develop bicycle and pedestrian trails and other improvements along the Golden State corridor.

Fresno Council of Governments Transportation Needs Assessment

The Fresno COG Transportation Needs Assessment addressed significant accessibility problems within Fresno County, with a particular focus on disadvantaged communities. The project consisted of two parts:

- Part 1 analyzed bicycle and trail facilities in Fresno County to identify gaps between local jurisdictions and recommend projects to close those gaps.
- Part 2 analyzed connectivity between communities within the region and ten major regional and sub-regional destinations, with a focus on disadvantaged communities who may have limited transportation options.

Projects were recommended to improve connectivity, including for pedestrians and bicyclists. This ATP includes recommendations from the needs assessment.

Golden State Corridor Design Plans

The Fresno COG is facilitating infrastructure improvements along the Golden State Corridor. These plans include development of trails, bike lanes, bicycle and pedestrian crossings, and other improvements along Golden State Boulevard and city roads in this corridor. These improvements are being constructed with funds from Measure C.

Caltrans Bicycle Guide for District 6

The Caltrans Bicycle Guide for District 6 maps and describes bicycle access on Caltrans facilities in Fresno County and neighboring counties. It also includes alternative routes to state highways on which bicycle travel is prohibited.

STATE AND FEDERAL

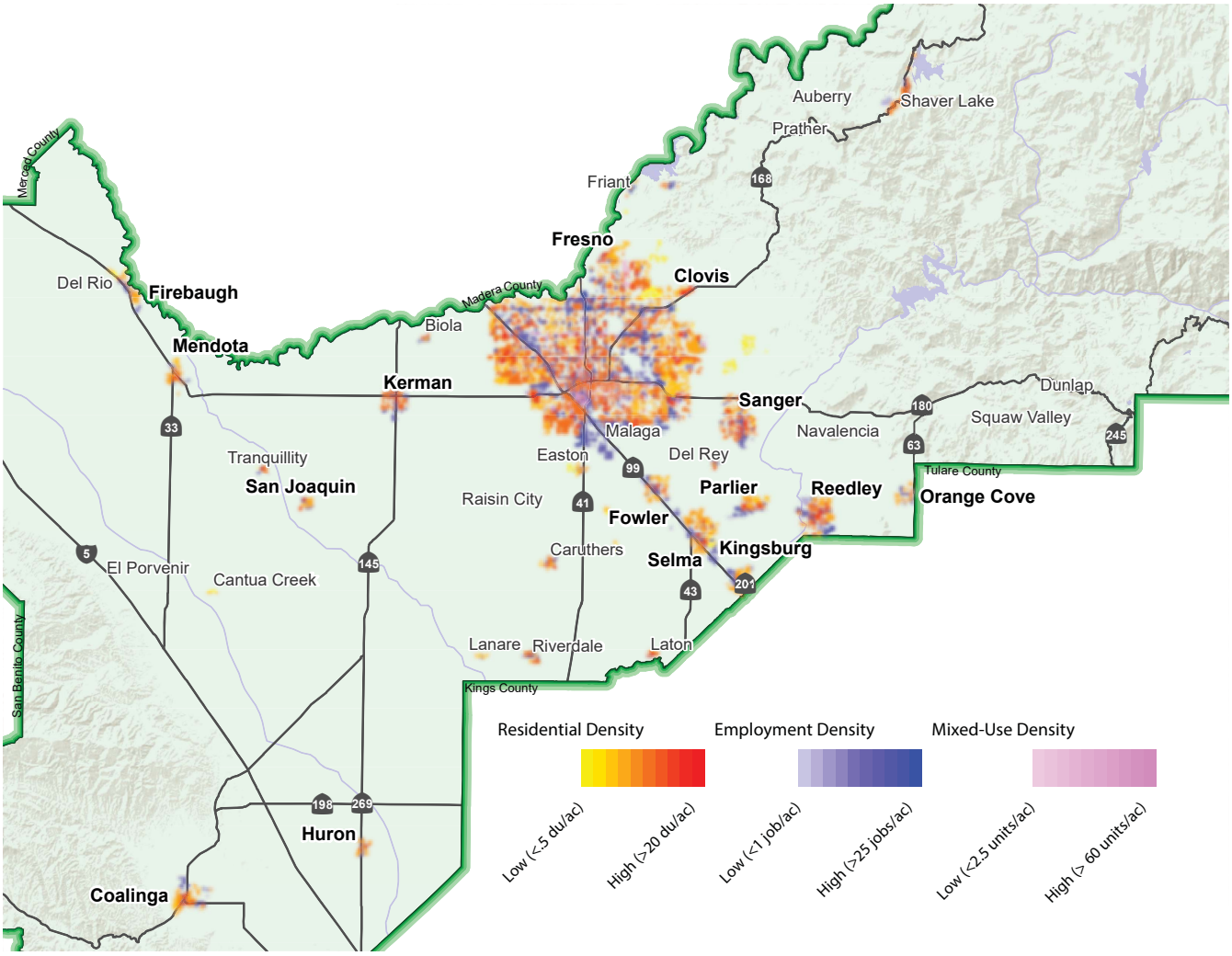
Several state and federal plans and other documents contain goals, policies, and requirements relevant to the ATP. These plans and documents are listed below and summarized in Appendix C, Relationship to State and Federal Plans and Policies.

- California State Bicycle and Pedestrian Plan
- California Green Building Code
- California Assembly Bill 32
- California Senate Bill 375
- California Assembly Bill 1358
- California Assembly Bill 743
- US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations
- US Americans with Disabilities Act

The following civil rights and environmental justice laws are also relevant to the plan:

- Title VI of the Civil Rights Act of 1964
- California Government Code Section 11135
- Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (Clinton 1994)
- U.S. Department of Transportation, Updated Environmental Justice Order 5610.2(a) (amended 5/2/2012)
- Federal Highway Administration, Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Order 6640.23A (6/14/2012)

Figure 2-1: Fresno COG 2018 RTP/SCS Preferred Scenario Land Use Map



Chapter 3

EXISTING CONDITIONS

This chapter describes current conditions for walking and biking in the Fresno region. The existing bicycle and pedestrian networks are presented along with a description of the socioeconomic and land use context of walking and biking region. Specific maps and descriptions for each jurisdiction are presented in Chapters 6 to 17.

CLIMATE

Although much of Fresno County is flat and the relatively dry climate is conducive to bicycling and walking, other local environmental conditions make active transportation more challenging. Summers are hot, with average high temperatures exceeding 95 degrees Fahrenheit and daily high temperatures frequently exceeding 100 degrees Fahrenheit. Air quality in the region frequently reaches the unhealthy range or higher due to both ground-level ozone and particulate matter.

RAILROADS AND HISTORICAL DEVELOPMENT PATTERNS

Much of the Fresno region was originally settled adjacent to railroads. Railroads historically served the packing industry and continue to serve businesses in the region today. Amtrak also serves passengers in the region with a station in Fresno. Many communities were developed with streets parallel and perpendicular to the railroads. Because the railroads generally traverse the Central Valley in a northwest/southeast orientation, the first streets in these communities were developed at a similar orientation. Later street development in these cities often occurred in a north/south or east/west orientation. Intersections formed where these developments meet are often at angles which make crossing more difficult for pedestrians and bicyclists.

In cities where the railroad still exists, railroad crossings also frequently create barriers due to poor pavement or sidewalk gaps.

Skew intersection in Fowler

HIGH VOLUME REGIONAL CONNECTING ROADS

The region is connected by many roads that serve large volumes of traffic, often at high speeds. Some of these roads are state routes controlled by Caltrans, while other roads are controlled by Fresno County. Some of these roads pass through cities included in this plan. In these cities, speeds are generally slower, but traffic volumes are frequently still high.

In addition to serving as connectors across the county, these roads sometimes serve as main streets in city business districts. When passing through these districts, the roads serve pedestrians, bicyclists, and local vehicle traffic as well as traffic moving between communities. Careful design is required to ensure that these roads serve all users, are safe for all users, and do not serve as a barrier to bicyclists and pedestrians.

Manning Avenue is an example of one of these high volume regional connecting roads. Manning Avenue is an east-west road spanning Fresno County, passing through the cities of San Joaquin, Parlier, and Reedley and the unincorporated community of Raisin City. In Parlier, the road is the location of many local businesses and local apartments and is the expected location of much future development. In Reedley, the road is adjacent to local schools, housing, and retail.

Sign on Colorado Avenue indicating end of bike lane in San Joaquin.

OTHER FACTORS

Several other local conditions affect bicycling and walking in the Fresno County region:

- Lighting: Some streets, especially in unincorporated communities, do not have streetlights or have streetlights that are widely spaced. Several public comments requested improved lighting to increase safety and perceptions of safety, which will increase walking and bicycling.
- Loose dogs: Several public comments also noted that loose dogs are a deterrent to walking and bicycling in some areas.
- Gaps in active transportation networks: Bicycle and pedestrian networks have developed unevenly and evolved over time, resulting in gaps. For example, a sidewalk may cover one block or a few houses but then be interrupted by another block or stretch of houses without sidewalks, forcing pedestrians to walk in the street.

DISADVANTAGED COMMUNITIES

The identification of disadvantaged and underserved communities is a key metric in many grant funding programs such as California's Active Transportation Program. This plan presents four different indicators of disadvantaged communities, often referred to as environmental justice communities:

- **Household median income** – census tracts with median households under 80% of the statewide median, or $49,454 (ACS, 2016).
- **CalEnviroScreen 3.0 score percentile** – a measure of environmental health by census tract. Inputs include socioeconomic factors, population characteristics, pollution factors, and environmental factors. Tracts with higher percentiles are more disadvantaged. The worst scoring 25% are identified.
- **Free or reduced price meal eligibility** – the share of students at a school who are eligible for subsidized meals. Schools with more than 75% eligible are most disadvantaged.
- **Zero automobile households** – share of households in each census tract that do not own a car.

Specific maps and descriptions for each jurisdiction are presented in Chapters 6 to 17. Many areas covered by this plan have one or more indicators of disadvantaged community status.

CONNECTIONS WITH TRANSIT

The primary transit provider in the jurisdictions covered by this plan is the Fresno County Rural Transit Agency, which has extensive routes across Fresno County. Other transit providers serving Fresno County destinations include

- **Fresno Area Express**, serving the City of Fresno and adjacent communities;
- **Clovis Transit**, serving Clovis and adjacent communities;
- **Kings Area Rural Transit**, connecting Hanford to the Fresno-Clovis Metropolitan Area with stops in Laton and Selma; and
- **The Dinuba Connection**, with service to Reedley.

These agencies provide fixed route and demand-responsive transit service. Buses are provided with bike racks by each of these agencies. Transit stops are shown on the key destinations maps for each jurisdiction presented in Chapters 6 to 17.

This Rural Transit bus serves the City of Huron and nearby communities..

FIVE E'S

The "E's" of active transportation are a way to view active transportation efforts holistically. The "E's" include programming and outreach efforts as well as infrastructure:

Education – programs to teach safe walking and bicycling, such as safety rodeos.

Encouragement – programs and events to increase participation in walking and bicycling. Examples include community walks and bike rides.

Enforcement – efforts by law enforcement to ensure laws relating to pedestrians and bicyclists are enforced. These efforts may be directed at motorists as well as pedestrians and bicyclists, for example, monitoring drivers yielding to pedestrians in crosswalks.

Engineering – infrastructure improvements that increase the extent, safety, and quality of networks and facilities for pedestrians and bicyclists.

Evaluation – review of data related to pedestrians and bicyclists. Collision data is one example.

A discussion of each jurisdiction's efforts for each of the E's is presented in Chapters 6 to 17.

Chapter 4

PLANNED NETWORKS AND PROGRAMS

This chapter discusses the planned bicycle networks, pedestrian networks, and supporting facilities and programs for the Fresno County region.

BICYCLE AND PEDESTRIAN NETWORKS

The build-out pedestrian and bicycle networks are the long-term vision of the active transportation facilities for the region. The networks include shared-use paths, bike lanes and routes, sidewalks, and crosswalk improvements. The proposed networks are designed to connect to neighborhoods in each community, to provide access to key destinations, and to serve as recreational assets. Details of each jurisdiction's networks are presented in Chapters 6 to 17.

The networks were developed with the following primary considerations:

- connectivity to key destinations, especially schools, parks, and civic buildings;
- collision history;
- previous plans;
- connections to adjacent jurisdictions' networks; and
- public comment.

CROSSING AND INTERSECTION IMPROVEMENTS

Several crossing improvement projects are also proposed in Chapters 6 to 17 to improve pedestrian comfort and safety. The decision to install a marked crosswalk or other crosswalk enhancement should take into account good engineering judgement, engineering study, and/or other necessary considerations as appropriate for each individual case. Some of these considerations include

- Pedestrian travel demand, typically 20 pedestrians/hour or more.
- Service of a facility or use that generates higher pedestrian travel or serves a vulnerable population (e.g., children, elderly, persons with disabilities). This may include schools, hospitals, senior centers, recreation/community centers, libraries, parks, or trails. Service of such facilities can justify pedestrian improvements to areas of less demand than 20 pedestrians/hour.
- Sight distance requirements, using appropriate stopping sight distance guidance from AASHTO's *A Policy on Geometric Design for Highways and Streets* or Caltrans' *Highway Design Manual.*
- Delay to pedestrian movements.

Public meeting held in Kerman to discuss potential improvements to bicycle and pedestrian networks.

- Distance to nearest crossing.
- Guidance of the California Manual on Uniform Traffic Control Devices (MUTCD).

Depending on the characteristics of a specific location, a marked crosswalk alone may not be sufficient to ensure efficient function for all users and maintain pedestrian safety. If a location is suitable for a marked crosswalk, Table 4-1 outlines the appropriate level of enhancement that may be necessary based on the number of travel lanes, average daily traffic, and posted speed limit (assuming speed limits are set at the 85th percentile speed). Three levels of enhancement are identified in Table 4-2 ranging from Level A to Level C.

Crosswalk with in-pavement flashers in the unincorporated community of Riverdale.

Table 4-1: Recommended Level of Enhancement at Crosswalks

Roadway Type	Vehicle ADT ≤9,000			Vehicle ADT >9,000 To 12,000			Vehicle ADT >12,000 To 15,000			Vehicle ADT ≥15,000		
	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph	≤30 mph	35 mph	40 mph
Residential	R	-	-	-	-	-	-	-	-	-	-	-
2 Lanes		A	B	A	A	B	A	A	C	A	B	C
3 Lanes	A	A	B	A	B	B	B	B	C	B	C	C
4 Lanes with Raised Median	A	A	C	A	B	C	B	B	C	C	C	C
4 Lanes without Raised Median	A	B	C	B	B	C	C	C	C	C	C	C

Source: Fehr & Peers, 2017

Table 4-2: Recommended Crosswalk Treatments and Enhancements

Level	Recommended Treatment Or Enhancement
R	High visibility crosswalk
A	**All of the following:** • High visibility crosswalk • Signs • Pavement word markings
B	**All of the following:** • Rectangular Rapid Flashing Beacons • High visibility crosswalk • Signs • Pavement word markings
C	**All of the following:** • Pedestrian Hybrid Beacon or Pedestrian Signal • High visibility crosswalk • Signs • Pavement word markings

Source: Fehr & Peers, 2017

HIGH VOLUME REGIONAL CONNECTING ROADS

As discussed in Chapter 3, Existing Conditions, the region is connected by many roads that serve large volumes of traffic, often at high speeds. Where these roads pass through cities, speeds are generally slower, but traffic volumes are frequently still high, and the roads must serve pedestrians, bicyclists, and local vehicle traffic as well as traffic moving between communities. Careful design is required to ensure that these roads are safe for all users, and do not serve as a barrier to bicyclists and pedestrians.

To serve the needs of all of these different users, Caltrans developed *Main Street, California: A Guide for Improving Community and Transportation Vitality,* most recently updated in 2013. This document provides guidance to create streets that are multimodal, livable, and sustainable. Principles described in this document include

- flexibility in design, taking the context of the project location into consideration;
- partnerships between agencies, communities, and stakeholders to develop collaborative options for funding, maintaining, and operating these streets;
- developing main streets for all, providing people the freedom to choose their preferred modes of travel;
- creating livable main streets, which improve a community's quality of life and unique sense of place; and
- creating sustainable main streets, supporting stewardship of natural resources, economic resources, and social resources.

Many strategies are available to fulfill these principles on streets in cities and communities in Fresno County. These strategies include

- addition of traffic calming features to reduce vehicle speeds;
- reducing vehicle lane widths;
- using road diets to allocate space to bicyclists and other uses;
- pedestrian refuge islands and curb extensions or bulb-outs; and
- modifying intersections to better serve pedestrians and bicyclists, including use of
  - pedestrian countdown timers,
  - leading pedestrian intervals, and
  - bicycle detection.

Pedestrian crosses Derrick Avenue (SR 33) at unmarked location in Mendota.

BICYCLE PARKING

Current bicycle parking and recommended additions to bicycle parking are presented for each jurisdiction in Chapters 6 to 17. However, data was not available from all jurisdictions to determine where bicycle parking exists and where it should be added. To support these recommendations, this plan recommends developing a countywide project to survey schools, parks, and public buildings to identify places where bicycle parking should be installed or improved. The project should then implement new bicycle parking meeting the standards discussed in Chapter 1, Introduction, at the recommended locations. Business owners should be encouraged to work with local jurisdictions to provide bicycle parking in visible areas in commercial districts to entice riders to stop and frequent local businesses.

Bike rack located in Huron Community Park adjacent to Huron Elementary School.

SUPPORTING PROGRAMS

Several improvements to other supporting programs are also recommended for the jurisdictions covered by this plan.

Five E's

Many of the jurisdictions within the region have few education and encouragement programs. Collaborating with other organizations provides a good opportunity to engage the community. In the region, groups such as Cultiva La Salud and Leadership Counsel for Justice and Accountability have hosted successful events that encourage active transportation and other healthy activities in disadvantaged communities. Hosting events with these organizations will allow jurisdiction staff to reach local children and other residents more effectively.

The California Office of Traffic Safety also provides grants for education, encouragement, and enforcement efforts aimed at improving pedestrian and bicyclist safety. Appendix E, Funding Sources, provides more details on these programs.

Local jurisdictions should also consider other improvements to the community environment that will enhance residents' safety and perceptions of safety. Adding lighting improvements can deter crime and increase walking and bicycling outside of daylight hours. Enforcing leash laws and otherwise deterring loose dogs will also diminish another deterrent to walking and bicycling frequently noted in Fresno County.

Crime prevention through environmental design (CPTED) can also be used to reduce the fear and incidence of crime and improve the quality of life by creating attractive, livable, and safe places. CPTED relies on four main strategies that can be employed in the development of active transportation facilities:

- **Natural surveillance:** The placement of physical features (windows, lighting, landscaping), activities (waiting for transit, sitting on a bench, walking), and people in a way that maximizes visibility of buildings, people, parking areas, and entrances. Natural surveillance can increase the number of "eyes on the street" and create visual connections between the street, sidewalk, and nearby land uses.
- **Natural access control:** Directing the flow of people by controlling access to and through a site to decrease the opportunity for crime by design elements (walkways, lighting, signage, landscaping, and physical barriers) can direct users to public routes and areas and discourage access to private areas.
- **Territorial reinforcement:** Use of physical attributes (fences, landscaping, sidewalks, and signage) to express ownership, distinguish between private and public space and define property lines.
- **Maintenance:** Continued use of a space for its intended purpose. Proper maintenance can serve as an additional expression of ownership and can help maximize public safety and visibility of a space, while deterioration and debris can indicate lack of concern and control and encourage unintended uses.

Available Resources

Most jurisdictions have not completed bicycle or pedestrian counts to evaluate use of existing facilities. Fresno COG has bicycle and pedestrian counters available that can be used to measure use of facilities. Bicycle and pedestrian counts can also be included as part of traffic counts that are often performed when developing roadway improvements.

Wayfinding

Wayfinding signage can be used on both bicycle and pedestrian facilities to direct users to connecting facilities and key destinations. Good wayfinding signs can also encourage pedestrians and bicyclists to visit local business. These signs provide the most value at trail junctions and at intersections of key bicycling and walking routes. Chapter 9B of the 2014 California MUTCD provides guidance on sign design and installation. These standard signs may also be augmented by signs depicting distances in miles to encourage walking and bicycling. Cities such as Kingsburg with distinctive branding can also include this branding in these signs.

Maintenance

Many jurisdictions do not have maintenance policies for bicycle and pedestrian facilities. Although funds for maintenance are limited in many jurisdictions, clear maintenance policies can make best use of existing funding to make biking and walking safer and encourage more biking and walking. Maintenance policies should include

- prompt response to reported hazards;
- periodic and regular inspection to address safety issues

such as broken or raised pavement and malfunctioning signals or warning lights;

- clearing trails, sidewalks, and bike lanes of debris or overgrown vegetation; and
- repainting of crosswalk and bike lane markings.

Expenditure Tracking

Many jurisdictions do not have the ability to summarize historical expenditures on bicycle and pedestrian improvements and maintenance. Adding the ability to summarize such expenditures will allow easier tracking of investments in these facilities and support future grant applications.

POTENTIAL OUTCOMES

Following implementation of the planned networks and supporting programs, substantial improvements may be achieved in active transportation use and safety of pedestrians and bicyclists.

By increasing the facilities available to users, mode share may increase to levels seen in other comparable cities. As the network continues to expand towards build-out, usage may be expected to be similar to cities with comparable characteristics. Sacramento is a city in the Central Valley with a comparable climate to that of the Fresno County region. Sacramento currently has a 2.2% bicycling mode share and a 3.3% walking mode share. Some cities already have mode shares that are close to (within 80%) or exceed those of Sacramento. A good comparison for those cities is Palo Alto, a California city with more developed infrastructure. Palo Alto has a bicycle mode share of 5.6% and a walking mode share of 10.0%. Though no single city is exactly comparable, these comparisons provide reasonable targets to achieve by implementing the ATP. Achieving comparable mode shares in Fresno County jurisdictions would result in large trip increases as shown in Table 4-3. As discussed in Chapter 3, Existing Conditions, because these numbers are based on commute trips and do not include shopping, school, or recreational trips, or commuters who only walk or bike to work part time, the actual number of future trips is likely to be higher than these estimates.

By implementing this plan, pedestrian and bicyclist safety will also be improved and the number of collisions involving pedestrians and bicyclists will also be reduced. A 50% or greater reduction in injuries and fatalities is a reasonable expectation if all aspects of this plan, including supporting programs, are implemented. In addition to these direct health improvements due to collision reduction, implementation will also support increased physical activity by region residents, improving community health by reducing incidence of heart disease, high blood pressure, Type 2 diabetes, mental illness, and obesity.

Table 4-3: Mode Share Comparison

Jurisdiction	Current Mode Share		Current Trips		Potential Future Trips	
	Bicycling	Walking	Bicycling	Walking	Bicycling	Walking
Fresno County	0.9%	1.9%	3,182	6,704	7,930	10,670
Firebaugh	0.0%	0.1%	0	2	70	100
Fowler	0.0%	3.3%	0	76	50	220
Huron	0.0%	4.4%	0	85	40	170
Kerman	0.0%	0.8%	0	37	100	150
Kingsburg	3.9%	1.6%	180	71	260	140
Mendota	0.0%	2.4%	0	83	80	110
Orange Cove	0.0%	3.0%	0	80	60	240
Parlier	0.0%	2.5%	0	126	110	150
Reedley	1.2%	1.5%	116	142	210	290
San Joaquin	0.0%	1.6%	0	10	10	20
Sanger	0.8%	2.3%	71	212	210	290

Source: US Census American Community Survey 2010-2015, Fehr & Peers 2017

Chapter 5

IMPLEMENTATION

Implementation of the planned bikeway and pedestrian network is anticipated to occur in multiple ways:

- through active transportation projects pursued to implement this plan;
- in conjunction with adjacent land development projects as each jurisdiction requires those projects to construct roadway and sidewalk frontage improvements in accordance with jurisdiction standards and the planned facilities identified in this plan; and
- in conjunction with maintenance and capacity enhancement projects, such as slurry seals, pavement reconstruction, roadway widening, or sidewalk rehabilitation projects.

Active transportation projects will be implemented based upon the priorities identified in the next section. Implementation will require many years to complete; implementation of priority projects will be targeted for completion in the next five to ten years. Implementation of each project is dependent upon availability and acquisition of funding. Projects requiring land acquisition or utility relocation will require extra time to implement. Improvements associated with work on adjacent roadways or development of adjacent land uses will provide opportunities for implementation relatively easily or at lower cost than if implemented separately. In these cases, lower priority improvements may be implemented before higher-priority improvements, depending on the location of these land development and roadway projects. Implementation of each project is also dependent on detailed feasibility and design studies based on local conditions.

Completion of projects in this plan will be reported by jurisdiction staff to the city councils and board of supervisors and on each city's website. Fresno COG will update this plan periodically, to reflect changing conditions and needs and progress toward completion.

PRIORITIZATION

The elements of these networks were prioritized as "High Priority" or "Other" (not high priority) for all jurisdictions except Fresno County based on several criteria:

- proximity to key destinations, including schools, parks, bus stops, and activity centers;
- collision locations;
- disadvantaged community indicators;
- public comment; and
- judgement of local jurisdiction staff.

Lists of projects with priorities are provided in Appendix D, Project Priorities and Cost Estimates.

COSTS

The estimated costs to implement each type of facility are provided in Appedndix D and summarized in Table 5-1. Summarized costs for each jurisdiction are provided in Chapters 6 to 17. On-street bike routes and bike lanes are the least expensive to construct per mile, while separated bikeways, sidewalks, and bike paths are most expensive to construct. If roads must be widened, utilities relocated, or land acquired to implement any of these facilities, costs will increase. However, many of these facilities may be implemented during development of adjacent land uses or in conjunction with other projects. Therefore, some of these costs will not be directly borne by the jurisdiction.

Project cost estimates are based on local unit cost estimates. These estimates were developed based on relevant project experience in the area. Assumptions for each bikeway type and details of these estimates are described in Appendix D. Note that these are high-level cost estimates, therefore more detailed study and design of individual project will be required to refine them.

Table 5-1: Project Cost Estimates

Facility Type	Cost Per Mile	High Priority	Other	Total
Class I Bike Path	$750,000	$4,937,000	$181,337,000	$186,274,000
Class II Bike Lane	$175,000	$11,694,000	$264,973,000	$276,667,000
Class III Bike Route	$8,000	$117,000	$353,000	$470,000
Class IV Separated Bikeway	$200,000	$326,000	$1,956,000	$2,282,000
Sidewalk	$343,000	$4,150,000	$27,320,000	$31,470,000
Intersection Improvements		$2,440,000	$3,630,000	$6,070,000
Overcrossings			$3,200,000	$3,200,000
Total		$23,664,000	$482,769,000	$506,433,000

Source: Fehr & Peers, 2017

Unit costs for other equipment, including installation are presented in Table 5-2.

Table 5-2: Unit Costs for Other Equipment

Equipment Type	Cost
Bike Rack (each)	$2,800
Wayfinding Signage (each)	$750
Lighting (single street light)	$12,000

Source: Fehr & Peers, 2017, Mark Thomas & Company, 2017

FUNDING

Federal, state, regional, county, and local organizations provide funding for pedestrian and bicycle projects and programs. The most recent federal surface transportation funding program, Fixing America's Surface Transportation Act (FAST), was signed into law in December 2015. FAST funding is distributed to federal surface transportation programs. Most of these resources are available through Caltrans and Fresno COG.

Senate Bill 1, The Road Repair and Accountability Act of 2017, was signed in April 2017. It will increase funding for the Active Transportation Program by $100 million statewide and encourages complete streets improvements in a majority of its funding allocations for local roadways.

Measure C, administered by the Fresno County Transportation Authority, is another important source of funding. The measure is a half-cent sales tax aimed at improving the overall quality of Fresno County's transportation system. This Local Transportation Program can be used on pedestrian and bicycle facilities and trails. Funding is allocated to cities and the county based on population. Measure C funding will also be used to construct the Golden State Corridor bicycle and pedestrian facilities.

Table 5-3 summarizes the applicability of these and other various funding sources to projects, planning efforts, and programs proposed in this plan. Detailed descriptions of the grant funding sources are presented in Appendix E, Funding Sources. The most applicable funding sources for the improvements proposed by this plan are the Active Transportation Program, Highway Safety Improvement Program, Measure C, the Congestion Mitigation and Air Quality Improvement Program, and the Surface Transportation Block Grant Program. This appendix includes details about current programs that are used to fund existing scheduled projects and an assessment of upcoming programs as of August 2017. These details may change as state and local programs adapt to the new SB 1 funding program.

Table 5-3: Funding Sources

Funding Source	Class I Bicycle Paths	Class II Bicycle Lanes	Class III Bicycle Routes	Class IV Separated Bikeways	Pedestrian Projects	Other Projects	Planning and Programs
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	◒	●	●	●	●	◒	◒
Surface Transportation Block Grant Program (STBGP)	●	●	●	●	●	●	●
Highway Safety Improvement Program (HSIP) Grants	◒	●	◒	●	●	●	○
Caltrans Transportation Planning Grants	○	○	○	○	○	○	●
Local Transportation Fund (LTF)	●	●	●	●	●	●	○
California State Parks Recreational Trails Program (RTP)	●	○	○	○	○	○	○
Land and Water Conservation Fund (LWCP)	●	○	○	○	○	○	○
Active Transportation Program (ATP)	●	●	●	●	●	●	●
Transportation Development Act (TDA)	●	●	●	●	●	●	●
Affordable Housing and Sustainable Communities Program (AHSC)	◒	◒	◒	◒	◒	◒	◒
California Office of Traffic Safety Pedestrian and Bicycle Safety Grants	○	○	○	○	○	○	●
FCTA Measure C	●	●	●	●	●	●	●
SJVAPCD Bikeway Incentive Program	●	●	●	○	○	○	○

Notes:

1. ● *indicates that funds may be used for this category;*
   ○ *indicates that funds may not be used for this category, and*
   ◒ *indicates that funds may be used, though restrictions apply.*

Source: Fehr & Peers, 2017

Mixed-use Path in Reedley