



COUNTY OF SACRAMENTO DEPARTMENT OF TRANSPORTATION



Sacramento County

Pedestrian MASTER PLAN

APRIL 2007

Prepared for
County of Sacramento Department of Transportation

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In Association with
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Executive Summary

Introduction

The Sacramento County Department of Transportation (SacDOT) began working on the Americans with Disabilities Act (ADA) Transition Plan and Pedestrian Master Plan project in April 2002. The main purpose of this project is to improve pedestrian safety and access on public streets within the unincorporated portions of Sacramento County. The goal is to optimize the pedestrian experience, to provide safe and usable pedestrian facilities for all pedestrians, and to assure compliance with all federal, state and local regulations and standards. Since safety concerns and activity centers are situated primarily along Sacramento County thoroughfares, the Pedestrian Master Plan focuses on these heavily traveled corridors as the highest priority for pedestrian improvement projects.

The ADA Transition Plan and the Pedestrian Master Plan are on a parallel schedule, but have separate adoption processes and community advisory committees. The ADA Transition Plan is intended to represent both the legal and functional goals and objectives of the County to make the existing pedestrian facilities within the unincorporated County right-of-way accessible and usable for persons with disabilities. SacDOT is undertaking the Pedestrian Master Plan to enhance walking as a viable transportation choice and to help make Sacramento County a better place to live. The Pedestrian Design Guidelines, as part of the Pedestrian Master Plan, addresses new design standards to make roadways better for all pedestrians. To ensure implementation, SacDOT will incorporate the guidelines into the Roadway Improvement Standards.

The ADA Transition Plan and the Pedestrian Master Plan cover unincorporated Sacramento County. This area is surrounded by incorporated cities to the north, east and south and by the Sacramento River to the west. Most of the developed areas within unincorporated Sacramento County are located within the middle of the County between the City of Sacramento and the cities of Citrus Heights, Folsom and Rancho Cordova. SacDOT has a wide variety of facilities within the public right-of-way. These facilities include streets and

roadways, vehicular and pedestrian bridges, underground and above-ground utilities, vehicular and pedestrian signal systems, signage systems, on-street parking facilities, sidewalks with curb ramps at intersections, planting strips and buffers, pedestrian activity areas and unimproved open spaces.

Public Participation

SacDOT set up the ADA Transition Plan and Pedestrian Master Plan project to encourage and facilitate the maximum degree of public participation. This process included persons with disabilities and those representing disability service organizations. The outreach efforts included the following components:

- Advisory Groups
 - ADA Community Advisory Group (CAG)
 - Technical Advisory Committee (TAC)
- Outreach to Persons with Visual Impairments
- Community Planning Advisory Councils (CPAC)
- Consumer Survey
- Press Releases
- Transportation Fairs
- Web Site
- Electronic Newsletter

The community will be encouraged to submit formal comments on this Pedestrian Master Plan, either in written form or at a public hearing.

Existing Conditions

This section assesses the current conditions in terms of walking demand and pedestrian facilities, and describes existing plans, programs, pedestrian demand, roadway facilities and field surveys conducted for this study. The main emphasis of the existing conditions effort is to analyze the current pedestrian infrastructure and public input about the pedestrian system within the County. The Pedestrian Master Plan efforts for obtaining these data are highlighted below in the survey inventory and the consumer survey.

Pedestrian Facilities Inventory

SacDOT conducted a five-month survey of pedestrian facilities to document existing conditions within the public rights-of-way. These data were used to recommend improvements to pedestrian facilities and to comply with ADA and State Title 24 requirements and County approved policies. Surveying refers to visiting the particular location by a trained accessibility surveyor and obtaining measurements, dimensions, gradients or other visual determinations as may be appropriate depending on the particular location. Highlights of the survey process and inventory findings include:

- Approximately 2,200 miles of streets and roadways covering over 15,000 individual segments of roadway boundaries were traveled and surveyed to document physical conditions along the roadways, including conditions that might be barriers to persons with disabilities.
- The inventory focused on more heavily used roadways and intersections and on those roadways and intersections serving governmental, public service and commercial uses.
- For roadways surveyed, approximately 75 percent of County roadways have sidewalks on one or both sides, and 25 percent do not have sidewalks on either side of the street.
- Approximately 11,000 intersections or almost 44,000 street corners were surveyed, and measurements were taken for a variety of dimensions and gradients.
- Approximately 66 percent of all corners surveyed have rolled curbs, approximately 16 percent have vertical curbs, and 18 percent do not have curbs.
- Approximately 41 percent of all developed corners have curb ramps. Of these, approximately 57 percent were older perpendicular curb ramps with flared sides and approximately 40 percent were newer parallel pan-type curb ramps.

All survey findings are contained in a Microsoft™ Access database titled the ADA Public Rights-of-Way Database, and are shown in the Implementation Plan for the Pedestrian CIP Projects and in the Technical Appendix for the remaining projects.

Consumer Survey

The purpose of the consumer survey is to better understand walking constraints that are occurring in Sacramento County. Table 1 shows that about one-third of the respondents were concerned about sidewalk and street crossing constraints.

Table 1: Pedestrian Constraints Reported

	Total Respondents	Sidewalk Constraints	Street Crossing Constraints	Disability Access Constraints
Unincorporated County (w/ Rancho Cordova)	494	170	155	86
Percentage of Total Respondents	100%	34%	31%	17%

Pedestrian Policies

This section describes existing pedestrian policies in unincorporated Sacramento County, shows pedestrian-related state and federal policies, and recommends additional pedestrian policies. Pedestrian policies reflect the current values held by the County, and build on both existing and emerging local, state and federal policies.

The most important existing policies are in the General Plan, the Caltrans non-motorized travel directive, and the United States Department of Transportation (US DOT) Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure. These policies provide evidence to the changing philosophical climate pertaining to travel in the United States. It is now widely recognized that walking has health, environmental, economic and quality of life benefits.

The policies proposed in this plan provide detailed direction to SacDOT on how to improve pedestrian safety, disabled access, pedestrian access, streetscaping, cost effectiveness and education. The recommended policies represent a set of principles that should be incorporated, to some extent, into every pedestrian environment.

Pedestrian Design Guidelines

The Pedestrian Design Guidelines document was developed to direct the design of the County's transportation system to achieve a balanced network where walking is safe, convenient and appealing. The County will distribute these guidelines to

developers and other entities involved with improving the County's streetscape. SacDOT will incorporate key elements of the Pedestrian Design Guidelines into the Roadway Improvement Standards to ensure the guidelines are followed on every roadway project.

The Pedestrian Design Guidelines cover design issues for the following elements:

- Streets and sidewalks
- Intersections and midblock crossings
- Special intersection crossing situations
- Pedestrian signals and signs
- Pedestrian facility maintenance
- Other innovative crossing treatments

Implementation Plan

The implementation plan section identifies projects that improve pedestrian safety and access. This section lists the highest-ranking projects and programs included in the Pedestrian Capital Improvement Program (CIP). The Pedestrian CIP totals \$40 million, and accounts for the first ten years of the program. The remaining projects total \$278 million and are listed in Appendix B. Short-term CIP programs are an additional \$160,000, and long-term programs total \$540,000. The total cost of implementing this plan is \$318 million, plus \$700,000 for programs.

Upon adoption of this plan, the County will establish a process to prioritize CIP projects for funding, including grant applications and other funding sources.

Prioritization criteria were used to rank sidewalk and asphalt walkway projects. The prioritization criteria are as follows:

- Walking Conditions
- Accessibility
- Adjacent Land Uses
- Public Input
- Cost Effectiveness
- Pedestrian Collisions
- Geographic Equity

The study team identified a series of projects intended to improve pedestrian circulation and safety. The recommended projects are grouped into the following categories:

- Sidewalks or Asphalt Walkways

- Safe Routes to School
- Safe Routes to Transit
- Sidewalk Obstruction Removals
- Midblock Crossings
- Pedestrian Countdown Signal Installations
- Signal Timings
- Lighting
- Trail Access
- Pathways
- Pedestrian Districts

Tables 2 and 3 summarize the order-of-magnitude cost estimates for the pedestrian programs and projects that are recommended for the Pedestrian CIP. Table 4 shows project cost summaries by community area for all the projects recommended in the PMP. Figures 1-9 show the highest-ranking projects that are recommended for funding in the Pedestrian CIP.

The Pedestrian Master Plan focuses on pedestrian improvement projects in the public rights-of-way. These projects do not include projects listed in the ADA Transition Plan, which cover curb ramps, sidewalks adjacent to curb ramps and accessible pedestrian signals. The Pedestrian Master Plan does not include projects within parks yet does include roadways adjacent to parks.

Table 2: Pedestrian CIP Project Cost Summary

Projects and Programs	Total Cost
Programs (Training, Marketing and Maintenance)	\$160,000
Projects	
Sidewalks/Asphalt Walkways	\$19,580,000
School Sidewalks/Asphalt Walkways	\$10,979,000
Transit Sidewalks/Asphalt Walkways	\$3,081,000
Midblock Crossings	\$1,919,000
Pedestrian Signal Countdowns	\$1,020,000
Signal Timings	\$46,000
Lighting	\$400,000
Trail Access	\$1,523,000
Pathways	\$1,080,000
Pedestrian Districts	\$450,000
Total	\$40,237,000

Table 3: Pedestrian CIP Project Cost Summary by Community Area (\$000)

Community Area	Sidewalk	School	Transit	Midblock	Signal Countdown	Signal Timing	Lighting	Trail Access	Pathways	Districts	Total	Total %
Antelope	\$809		\$293	\$5	\$6						\$1,113	3%
Antelope / North Highlands / Foothill Farms					\$12			\$93			\$105	0%
Arden Arcade	\$3,159	\$2,675	\$619	\$479	\$336	\$20	\$55	\$424	\$100	\$90	\$7,957	20%
Carmichael	\$7,040	\$2,999	\$68	\$293	\$96	\$6	\$25	\$645	\$240	\$30	\$11,442	29%
Carmichael / Fair Oaks					\$6		\$5				\$11	0%
Carmichael / North Highlands / Foothill Farms					\$12	\$1					\$13	0%
Cosumnes	\$150										\$150	0%
Delta	\$371										\$371	1%
Fair Oaks	\$1,709	\$2,330	\$138	\$225	\$90	\$7	\$10		\$40	\$30	\$4,579	11%
Fair Oaks / Orangevale				\$40	\$24						\$64	0%
Franklin / Laguna	\$1,092						\$5		\$200		\$1,297	3%
N. Highlnds / Foothill Farms	\$420	\$1,715	\$301	\$385	\$198	\$4	\$65		\$330	\$90	\$3,508	9%
N. Natomas											\$0	0%
Orangevale	\$233		\$96	\$492	\$54		\$20		\$130	\$30	\$1,055	3%
Rio Linda / Elverta	\$317	\$1096			\$12	\$1	\$185		\$10	\$30	\$1,651	4%
S. Sacramento	\$4,118	\$164	\$1,566		\$168	\$7	\$25		\$30	\$150	\$6,228	16%
S. Sacramento / Vineyard					\$6						\$6	0%
Southeast											\$0	0%
Vineyard	\$161						\$5	\$361			\$527	1%
Total	\$19,580	\$10,979	\$3,081	\$1,919	\$1,020	\$46	\$400	\$1,523	\$1,080	\$450	\$40,077	100%

Table 4: Entire Project Cost Summary by Community Area (\$000)

Community Area	Sidewalk	School	Transit	Midblock	Signal Countdown	Signal Timing	Lighting	Trail Access	Pathways	Districts	Total	Total %
Antelope	\$5,110		\$293	\$71	\$6	\$8	\$10				\$5,498	2%
Antelope / North Highlands / Foothill Farms	\$6,885				\$12			\$93			\$6,990	2%
Arden Arcade	\$42,209	\$2,675	\$619	\$546	\$336	\$27	\$285	\$424	\$100	\$900	\$48,121	15%
Carmichael	\$37,866	\$2,999	\$68	\$360	\$96	\$13	\$485	\$645	\$240	\$300	\$43,072	14%
Carmichael / Fair Oaks	\$747				\$6		\$5				\$758	0%
Carmichael / North Highlands / Foothill Farms	\$579				\$12	\$2					\$593	0%
Cosumnes	\$23,182			\$66		\$7	\$10				\$23,265	7%
Delta	\$2,771			\$66		\$7					\$2,844	1%
Fair Oaks	\$31,911	\$2,330	\$138	\$293	\$90	\$14	\$20		\$40	\$300	\$35,136	11%
Fair Oaks / Orangevale	\$1,727			\$108	\$24						\$1,859	1%
Franklin / Laguna	\$9,759			\$66		\$7	\$5		\$200		\$10,037	3%
N. Highlnds / Foothill Farms	\$19,868	\$1,715	\$301	\$453	\$198	\$11	\$75		\$330	\$900	\$23,851	8%
N. Natomas	\$37,866			\$66		\$7					\$37,939	12%
Orangevale	\$34,562		\$96	\$560	\$54	\$7	\$20		\$130	\$300	\$35,729	11%
Rio Linda / Elverta	\$6,739	\$1096		\$66	\$12	\$8	\$295	\$885	\$10	\$300	\$9,411	3%
S. Sacramento	\$6,510	\$164	\$1,566	\$66	\$168	\$14	\$65		\$30	\$1,500	\$10,083	3%
S. Sacramento / Vineyard	\$0				\$6						\$6	0%
Southeast	\$16,315			\$66		\$7					\$16,388	5%
Vineyard	\$5,525			\$66		\$7	\$5	\$582			\$6,185	2%
Total	\$290,131	\$10,979	\$3,081	\$2,919	\$1,020	\$146	\$1,280	\$2,629	\$1,080	\$4,500	\$317,765	100%

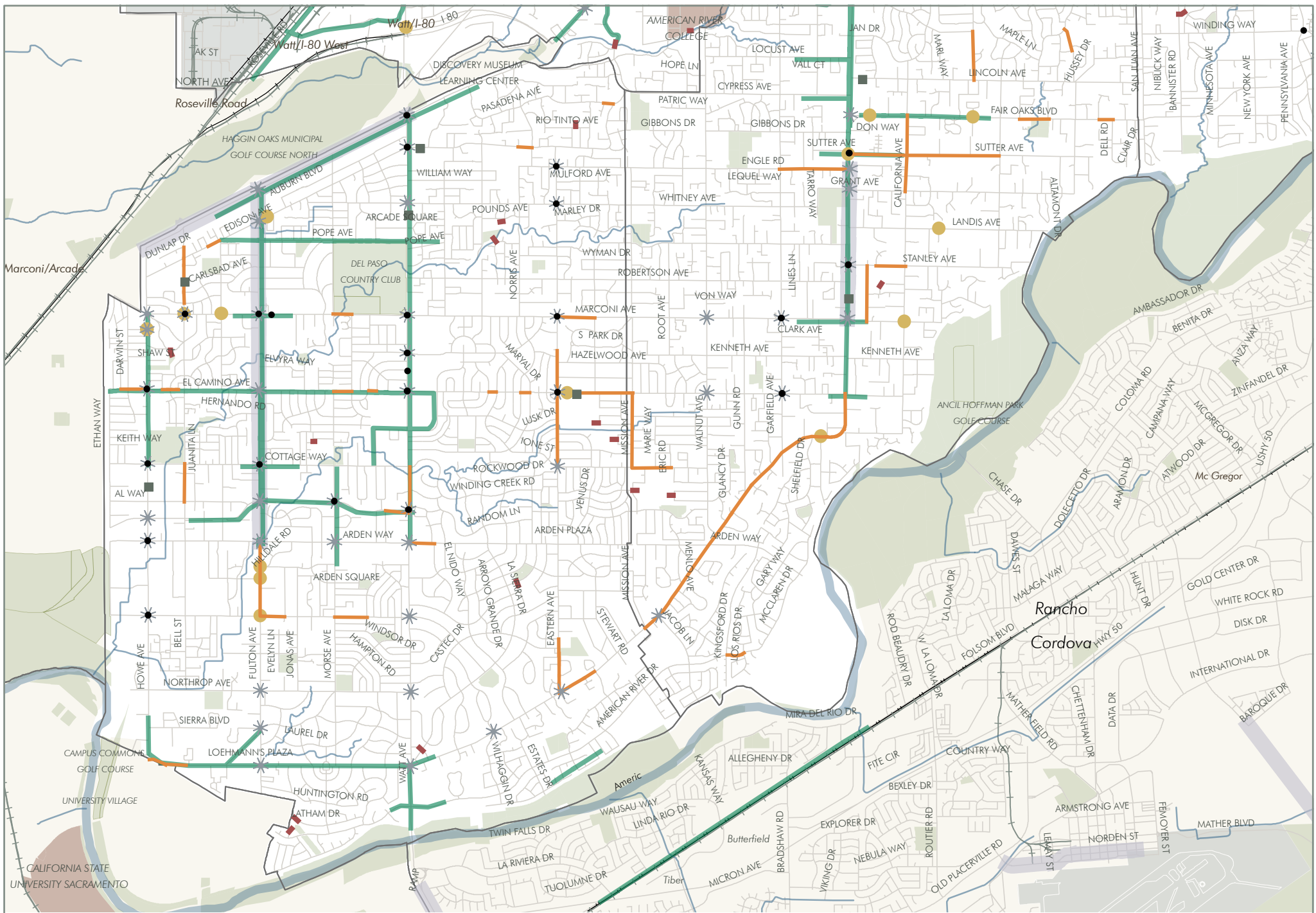


Fig. 1: High Priority Pedestrian Projects Arden Arcade

- Signal Timing
- ★ Countdown Signal
- Lighting
- ➔ Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area





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April 2007

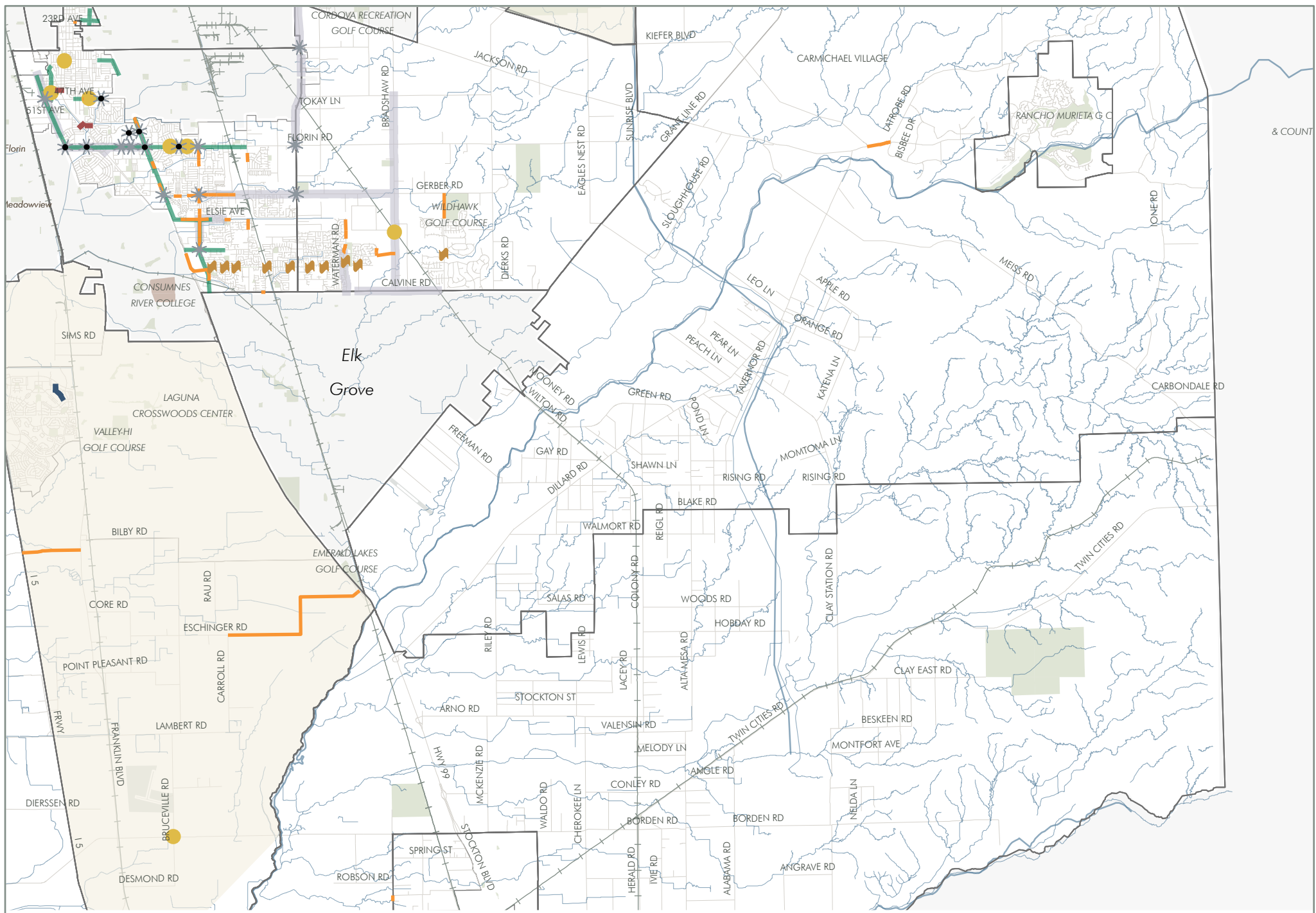
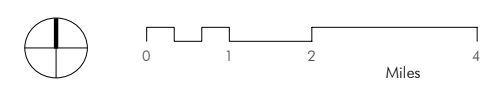


Fig. 3: High Priority
Pedestrian Projects
Consumnes and Southeast

- Signal Timing
- ✱ Countdown Signal
- Lighting
- ➔ Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



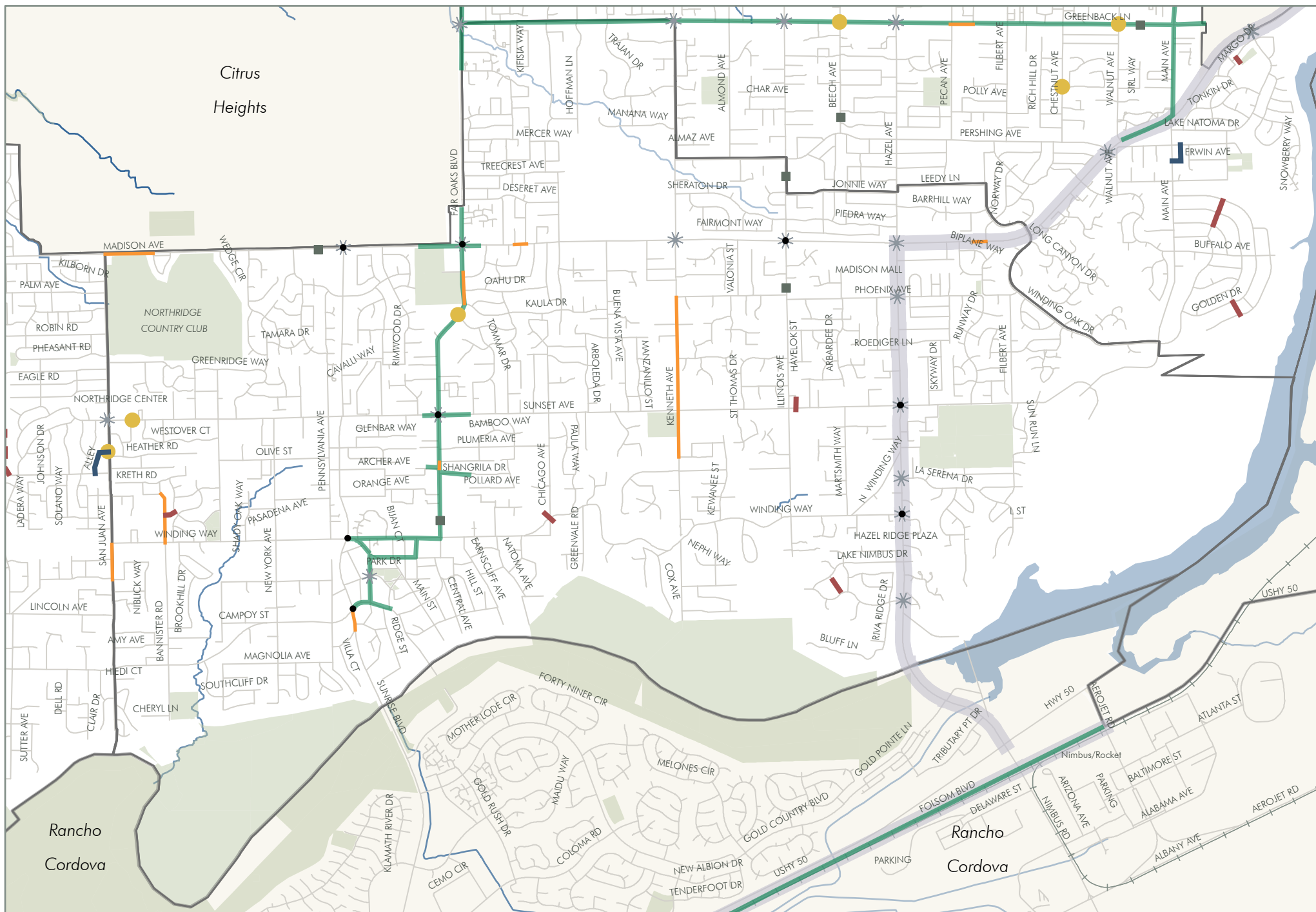


Fig. 4: High Priority
Pedestrian Projects
Fair Oaks



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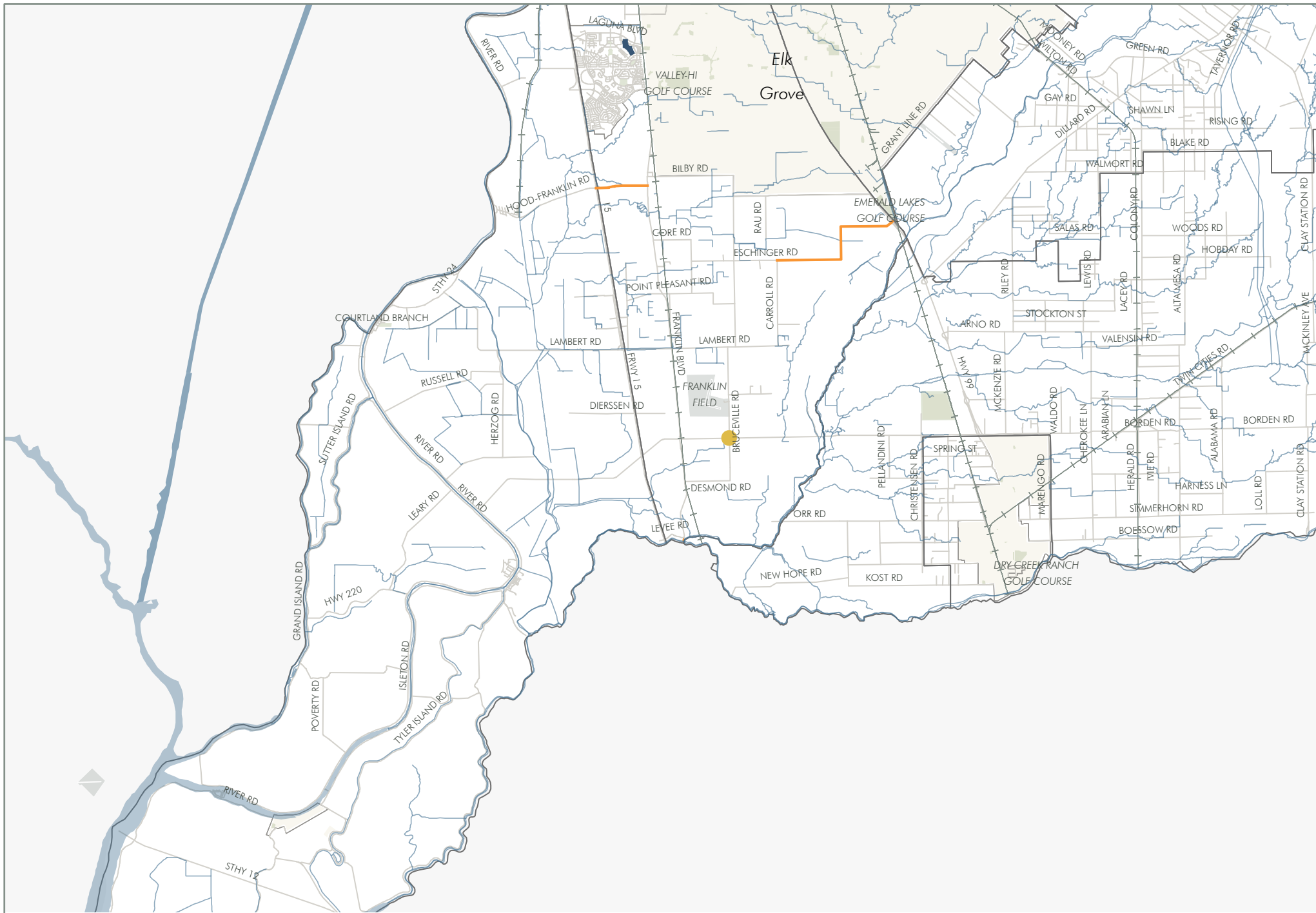


Fig. 5: High Priority Pedestrian Projects Franklin Laguna | Delta

- Signal Timing
- ★ Countdown Signal
- Lighting
- ➔ Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area

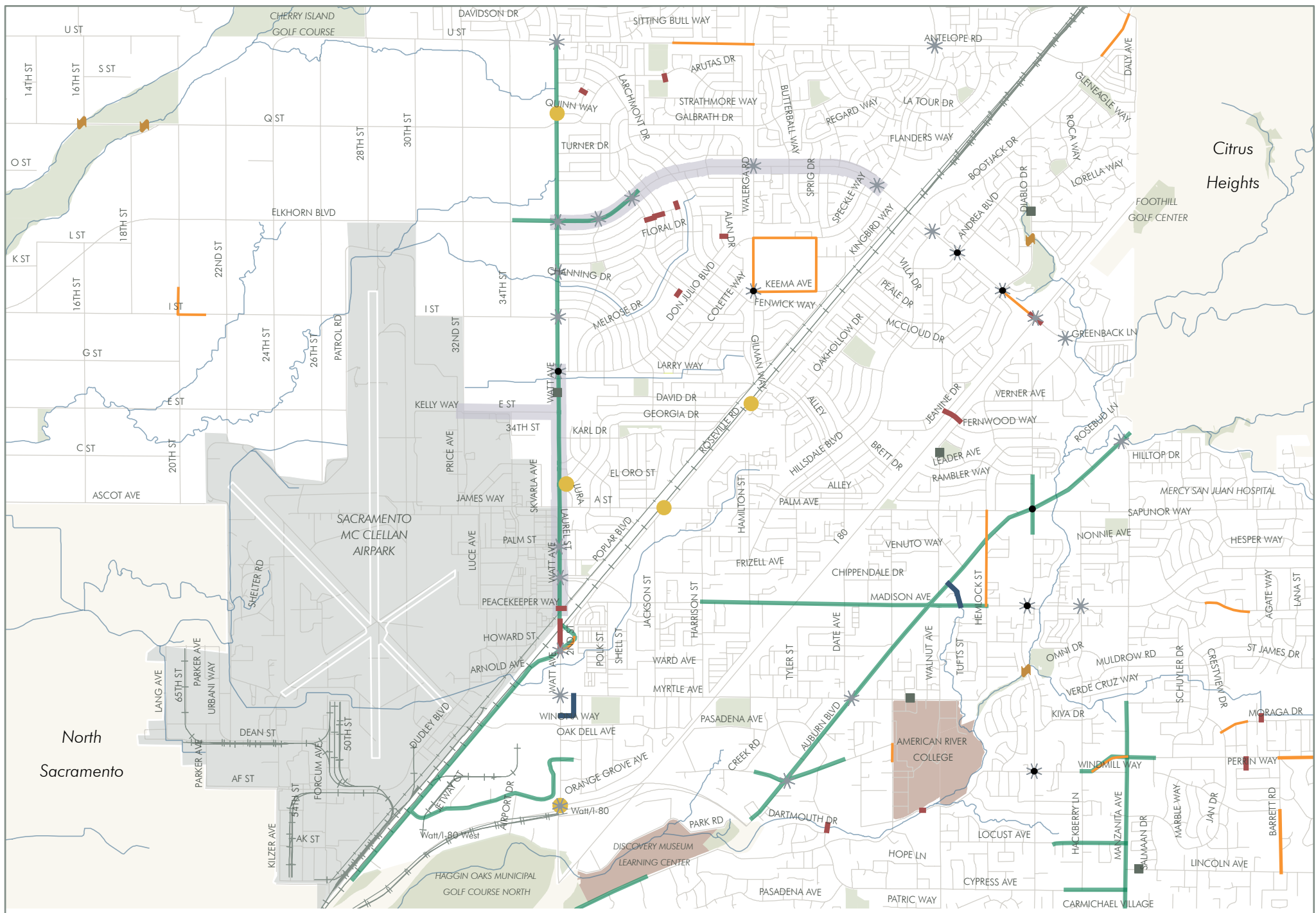
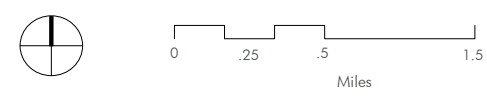


Fig. 6: High Priority Pedestrian Projects

North Highlands | Foothill Farms | Antelope

- Signal Timing
- ★ Countdown Signal
- Lighting
- Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



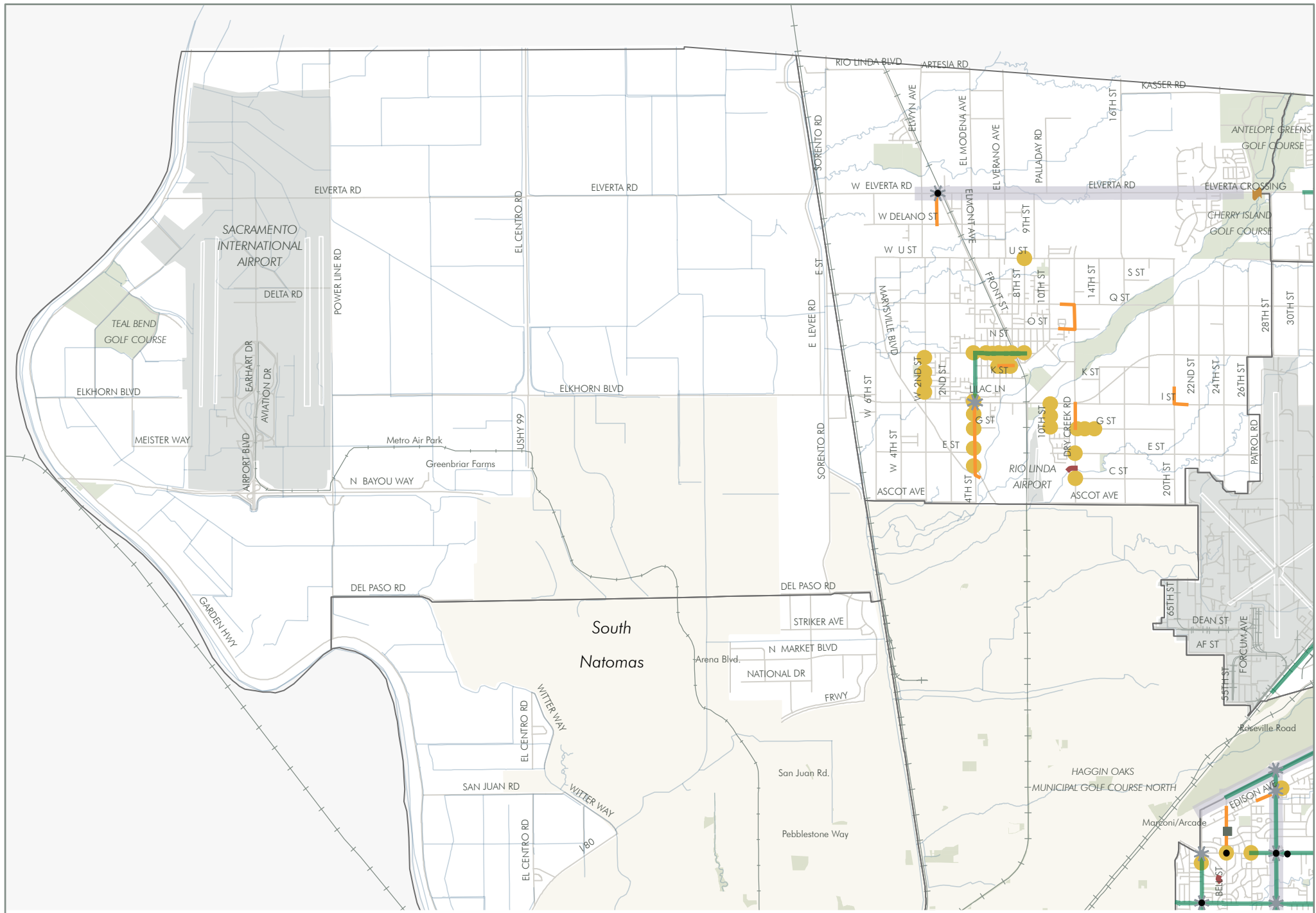
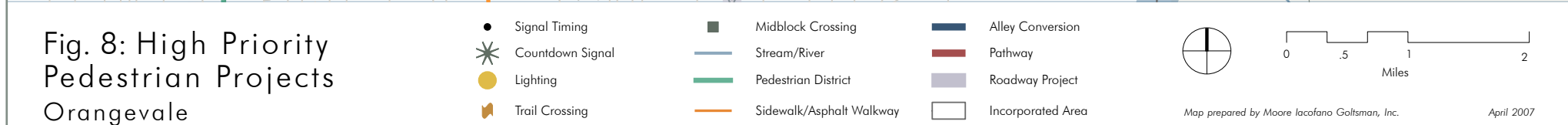


Fig. 7: High Priority Pedestrian Projects
 North Natomas | Rio Linda-Elverta

- | | | |
|--------------------|----------------------------|---------------------|
| ● Signal Timing | ■ Midblock Crossing | ■ Alley Conversion |
| ★ Countdown Signal | — Stream/River | — Pathway |
| ● Lighting | — Pedestrian District | — Roadway Project |
| ➔ Trail Crossing | — Sidewalk/Asphalt Walkway | □ Incorporated Area |





● Signal Timing ■ Midblock Crossing ■ Alley Conversion
 ✱ Countdown Signal — Stream/River ■ Pathway
 ● Lighting — Pedestrian District ■ Roadway Project
 🏠 Trail Crossing — Sidewalk/Asphalt Walkway □ Incorporated Area



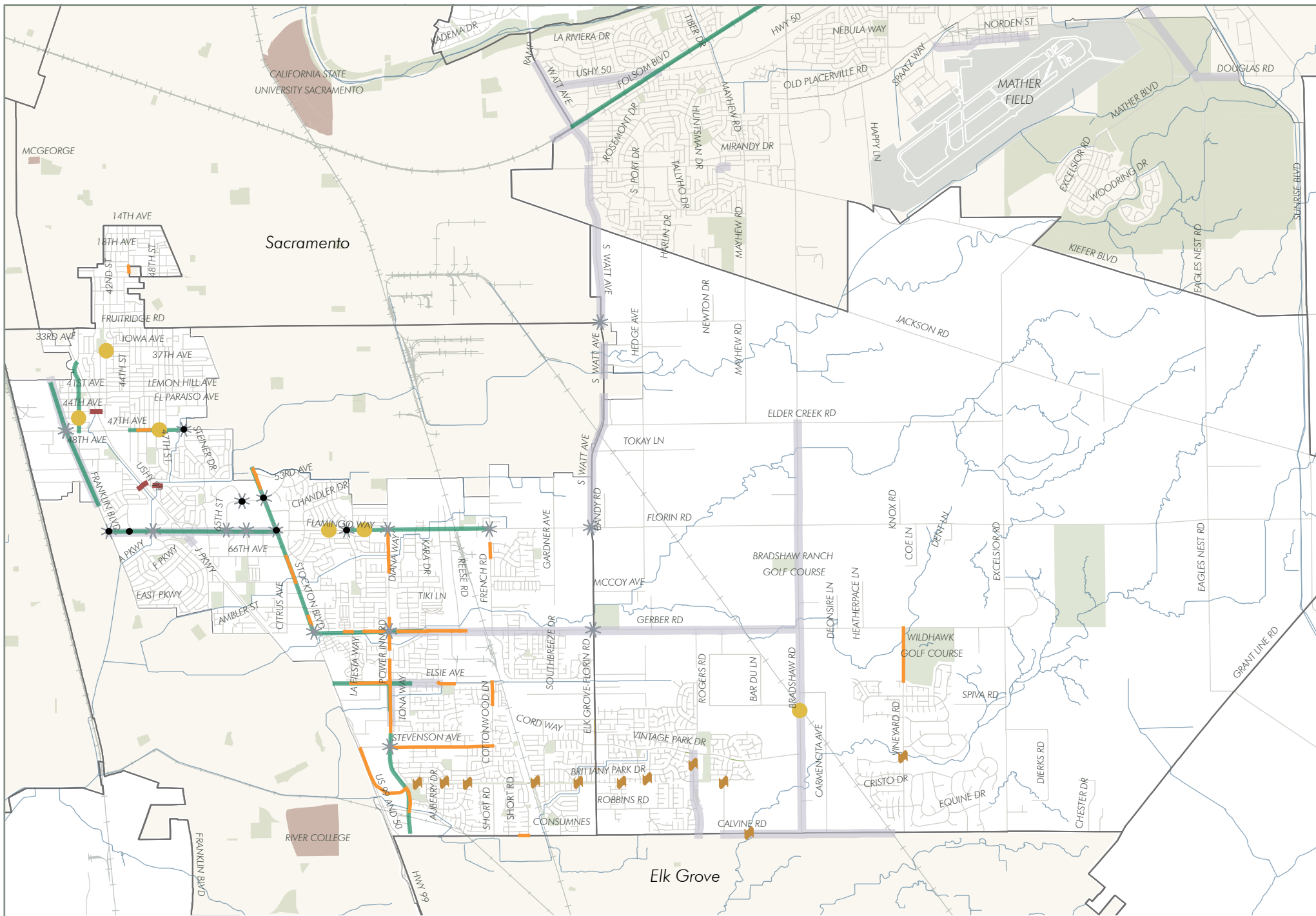


Fig. 9: High Priority Pedestrian Projects
 South Sacramento | Vineyard

- | | | |
|--------------------|----------------------------|---------------------|
| ● Signal Timing | ■ Midblock Crossing | ■ Alley Conversion |
| ★ Countdown Signal | — Stream/River | — Pathway |
| ● Lighting | — Pedestrian District | — Roadway Project |
| 🏠 Trail Crossing | — Sidewalk/Asphalt Walkway | □ Incorporated Area |



Introduction

Walking is the most basic form of transportation. Most travelers walk during some portion of their trip whether it is from their home to the bus stop or between their home and a local destination such as the park, store or local school. Pedestrians have the same needs as automobile drivers: direct, continuous and safe routes to and from their destinations. Pedestrians also may use baby strollers, wheelchairs or other devices to support their personal mobility.

The visibility of walking and pedestrian needs have risen to the forefront over the past 15 years. First, the passage of the Intermodal Surface Transportation Efficiency Act emphasized multimodal transportation planning and flexible funding to support all modes. Second, the recognition of the need for walkability has been emphasized to support smart growth as envisioned by the Sacramento Area Council of Government's Blueprint Project, and as adopted by the County Board of Supervisors. Third, public health issues such as obesity are generating new concerns about the need to provide infrastructure to encourage and support pedestrian activity. Lastly, the disabled community has been vocal about the need for walkways that support devices such as wheelchairs and the use of canes by individuals with visual impairments.

In unincorporated Sacramento County, most of the roadway infrastructure was constructed post World War II when emphasis was placed on the automobile as the emerging dominant form of transportation. Thus, many roadways lack pedestrian infrastructure or a continuous pedestrian infrastructure. As the County has grown and is surrounded by other growing communities, traffic congestion is seen as one symptom of the inability to use other means of transportation as easily and safely as driving. This Plan will assist in bringing the focus of walking needs to a level playing field with driving.

Purpose of the Pedestrian Master Plan

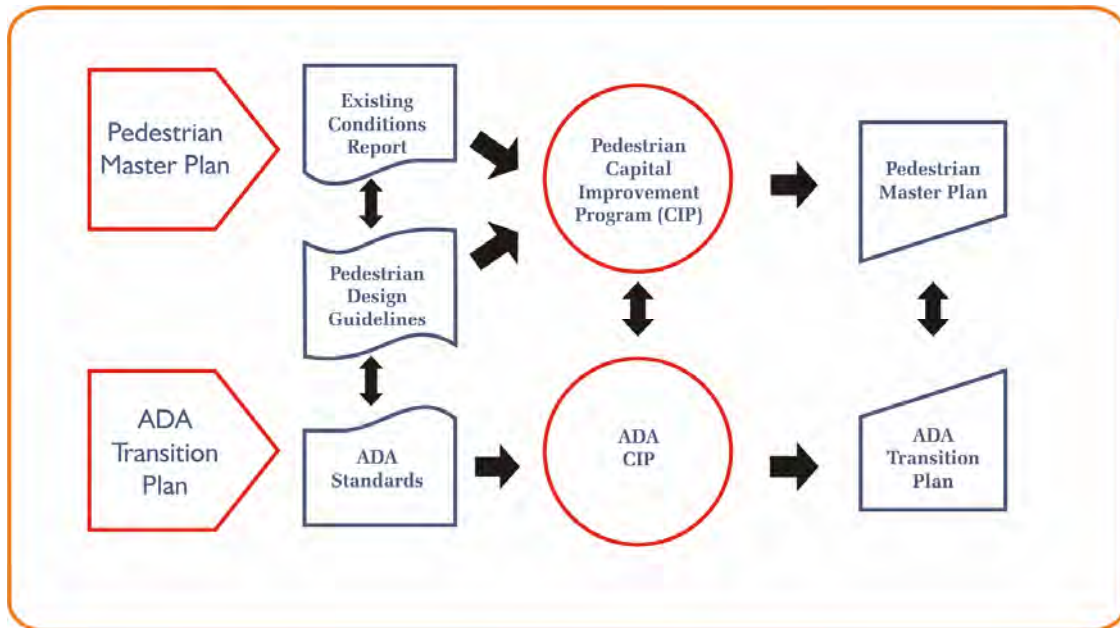
The overall purpose of the Pedestrian Master Plan (PMP) is to identify and address the pedestrian needs of the community. The PMP works to improve pedestrian connectivity and safety within the public right-of-way in areas of the unincorporated County that already are developed with a roadway system. The PMP provides a framework for prioritizing pedestrian improvements, identifies a ten-year capital improvement plan, and specifies a funding strategy to ensure implementation. Pedestrian improvement projects may be standalone projects or part of a larger roadway project. As corridor projects are undertaken, it is County policy to consider and incorporate, to the extent possible, all travel modes into the design options and to build or upgrade pedestrian facilities as part of the larger project.

The PMP is supported by a second document, the Pedestrian Design Guidelines, prepared as part of the PMP development. The Pedestrian Design Guidelines for unincorporated Sacramento County was adopted by the Board of Supervisors in November 2005 to direct the future design of both new and retrofitted pedestrian facilities. The design standards enhance accessibility for all pedestrian facility users, including individuals with disabilities and address safety, connectivity, ease of use, aesthetics and cost effectiveness.

A third document, the ADA Transition Plan, adopted by the Board of Supervisors in January 2005, recommends improvements that bring the County into compliance with the ADA and California Title 24 disabled access public right-of-way requirements. The parallel development of the ADA Transition Plan and the PMP has allowed for the coordination of roadway fieldwork, public outreach and construction of improvement projects.

Pedestrian Master Plan Development Process

Improvement recommendations within the Plan originate from inventory fieldwork, public input, collision data, ADA standards and codes, Pedestrian Design Guidelines and other sources (see inset). The Existing Conditions Report as shown in the below figure summarizes the fieldwork, public input and collision data findings.



Community Outreach

Introduction

The study team set up the ADA Transition Plan and Pedestrian Master Plan project to encourage and facilitate the maximum degree of public participation. The unincorporated Sacramento County residents had the opportunity to participate in the following outreach activities starting in 2002:

- Advisory Groups
- Outreach to Persons who are Visually Impaired
- Web Site
- Electronic Newsletter and List Serv
- Transportation Fairs
- Community Planning Advisory Councils
- Consumer Survey (described in the Existing Conditions section under Pedestrian Master Plan Infrastructure Surveys)
- Dan Burden Presentations
- Public Information Workshop and Hearing

Advisory Groups

As part of the Pedestrian Master Plan public participation process, advisory groups were formed to allow for additional input from key stakeholders, planning professionals, policy makers and the general public. The advisory groups acted as a sounding board for the study team. Members reviewed and provided feedback on project documents and submittals. In addition, the advisory groups worked toward achieving consensus on project issues. The following advisory groups were established:

- Pedestrian Community Advisory Group (CAG) for the Pedestrian Master Plan.
- Technical Advisory Committee (TAC) for the ADA Transition Plan and the Pedestrian Master Plan.

The study team met with the advisory committees for the project kick-off, the Dan Burden presentation, the draft

Pedestrian Design Guidelines and the Existing Conditions report. Initial group meetings were held in April 2002. The CAG and the TAC met concurrently at different stages to allow the joint groups to discuss key project components.

The Pedestrian CAG and TAC members included representatives from the following organizations:

Community Advisory Group (CAG)

- Agency For Hearing
- Building Industry Association
- California Council of the Blind
- Californians for Disability Rights
- El Camino Gardens
- Environmental Council of Sacramento
- Fair Oaks Veteran's Affairs
- Greater Sacramento Safe Kids Coalition
- Highway 50 Corridor TMA
- HLA Group
- North Highlands/Foothill Farms Community Policy Advisory Committee
- North Natomas TMA
- Sacramento County, Chief Disability Compliance Office
- Sacramento Metropolitan Air Quality Management District
- Sacramento Transportation Equity Network
- Sacramento Tree Foundation
- Surface Transportation Policy Project
- University of California at Davis Medical Center
- WalkSacramento

Technical Advisory Committee (TAC)

- Caltrans
- City of Sacramento Public Works Department
- Paratransit, Inc.
- Sacramento Area Council of Governments
- Sacramento County – Chief of the Disability Compliance
- Sacramento County – Construction Management
- Sacramento County – Department of Environmental Review and Assessment

- Sacramento County – Department of Parks and Recreation
- Sacramento County – Department of Water Resources
- Sacramento County – General Services
- Sacramento County – Planning Department
- Sacramento County – Physical Access Sub-Committee
- Sacramento County – Sacramento Department of Transportation (SacDOT)
- Sacramento County - Sheriff's Department
- Sacramento Metropolitan Air Quality Management District
- Sacramento Municipal Utility District
- Sacramento Regional Transit District
- WalkSacramento

Outreach to Persons who are Visually Impaired

The Sidewalk and Intersection Database, which is the pedestrian facility inventory, is available for review by appointment at the ADA Program Access Coordinator's office at Sacramento County Department of Transportation, 906 G Street, Suite 510, Sacramento, CA 95814, Telephone (916) 874-6291, TTY (916) 875-7105.

California Access News' Local Content Area has a free telephone reader service for individuals who are blind or with visual impairments that included information on the Pedestrian Master Plan. The service was initiated for Sacramento County's ADA Transition Plan process in August 2002, and received a total of 48 calls to the three project-related sites between August and December 2002. All information was updated on a regular basis to include upcoming events, meetings and documents.

Web Site

The study team used the Sacramento County Department of Transportation web site at: <http://www.sacdot.com> as a means of disseminating information on the Pedestrian Master Plan as well as on the ADA Transition Plan. The web site contained information on the project's purpose, schedule, pedestrian/ADA consumer survey, archived newsletters, documents, public involvement opportunities and contact information. In addition, the final ADA Transition Plan and Pedestrian Master

Plan will be posted on the County's web site for approximately 12 months after final approval and adoption.

Electronic Newsletter and Listserv

The study team used e-mail list-servs and electronic newsletters to keep interested parties apprised of the project's progress. The study team found e-newsletters to be a cost-effective method of communicating project information to a broad audience. The e-newsletters also afforded the study team a convenient method of communicating project updates or upcoming public involvement opportunities on a frequent, real-time basis.

The study team also made newsletters available in hard copy, large print, CD, floppy disk or electronic mail. To distribute project information, the study team relied on the ADA and pedestrian-oriented organizations and other advocacy groups in the Sacramento area.

Dan Burden Presentations

Dan Burden, a National Pedestrian Expert from Walkable Communities, Inc., toured and spoke in Sacramento County on Wednesday, November 6, 2002 and Thursday, November 7, 2002. Dan Burden's presentations sought to educate a broad group of staff, elected officials and community members about walking concepts and issues to help encourage more pedestrian-friendly policies, programs and projects. Dan's presentations helped stimulate discussion in preparation for the design guidelines' task of the pedestrian planning effort. The study team used the feedback to prepare a more tailored preliminary draft design guidelines document. Dan presented before the Board of Supervisor and the CAG/TAC members, and participated in a site tour and a public workshop. The bus tour looked at a mix of pedestrian areas in the County.

Transportation Fairs

A series of transportation fairs were conducted for public input in the early stages of both the ADA Transition Plan and the Pedestrian Master Plan. The transportation fairs, which occurred in June 2003, covered both the ADA Transition Plan and Pedestrian Master Plan issues at the same venue to allow everyone to understand the Plans' development processes, see the results of the inventory and evaluation of existing walking and accessibility conditions, and respond with comments and

identification of neighborhood concerns. The integration of both disabled access and general pedestrian topics in the same fair enabled the general public to become better educated on disability access issues. The transportation fairs were in four strategic locations throughout the County: Rio Linda, Orangevale, Florin and Arden. Each transportation fair had five sequential topic stations placed around a medium to large-sized room that interested parties visited at their convenience.

Community Planning Advisory Councils

At the beginning of the project, the study team presented the ADA Transition Plan and Pedestrian Master Plan projects to the Community Planning Advisory Councils (CPACs). The presentations focused on each plan's purpose, objectives, scope, schedule and community outreach and involvement opportunities. Attendees of the CPAC meetings provided input to guide plan development. The study team distributed the consumer survey, as described in the next section, to CPAC meeting attendees to identify specific problem areas in their neighborhoods. The 14 CPACs included in the public participation process were:

- Antelope
- Arden/Arcade
- Carmichael
- Cosumnes
- Delta
- Fair Oaks
- Franklin / Laguna
- Natomas
- North Highlands
- Orangevale
- Rio Linda / Elverta
- Southeast
- South Sacramento
- Vineyard

Public Information Workshop and Hearing

The County of Sacramento held a public workshop on the draft Pedestrian Master Plan in 2006. The format included an initial brief overview presentation and a general large group question and answer period.

Existing Conditions

Overview

This section is intended to provide an overview of the pedestrian environment in unincorporated Sacramento County. First, this section describes the planning area for the PMP. Second, the factors that impact pedestrian demand in Sacramento County are described and existing pedestrian infrastructure survey results are presented. In addition, this section highlights the challenges to creating a pedestrian-friendly environment and describes the existing plans, programs and policies that impact the pedestrian environment. The study team used the information in this section to prioritize pedestrian improvement projects.

Plan Area

Setting

The unincorporated portions of Sacramento County lie within the Central Valley between Lake Tahoe and the Bay Area. These areas are surrounded by incorporated cities to the north, east and south and by the Sacramento River to the west. There are 14 community planning areas within the unincorporated County, which range from rural to high density suburban subareas (Figure 10).

Most of unincorporated County's developed areas are located within the middle of the County between the City of Sacramento and the cities of Citrus Heights and Rancho Cordova (Figure 11). South Sacramento also is a developed area.

The residents of Rancho Cordova, a residential and industrial area on the easterly side of the unincorporated County, voted to incorporate in November 2002. Rancho Cordova was included in the initial part of this study, since data was already collected and incorporation did not formally take effect until July 2003.

Figure 10: Community Planning Areas in Sacramento

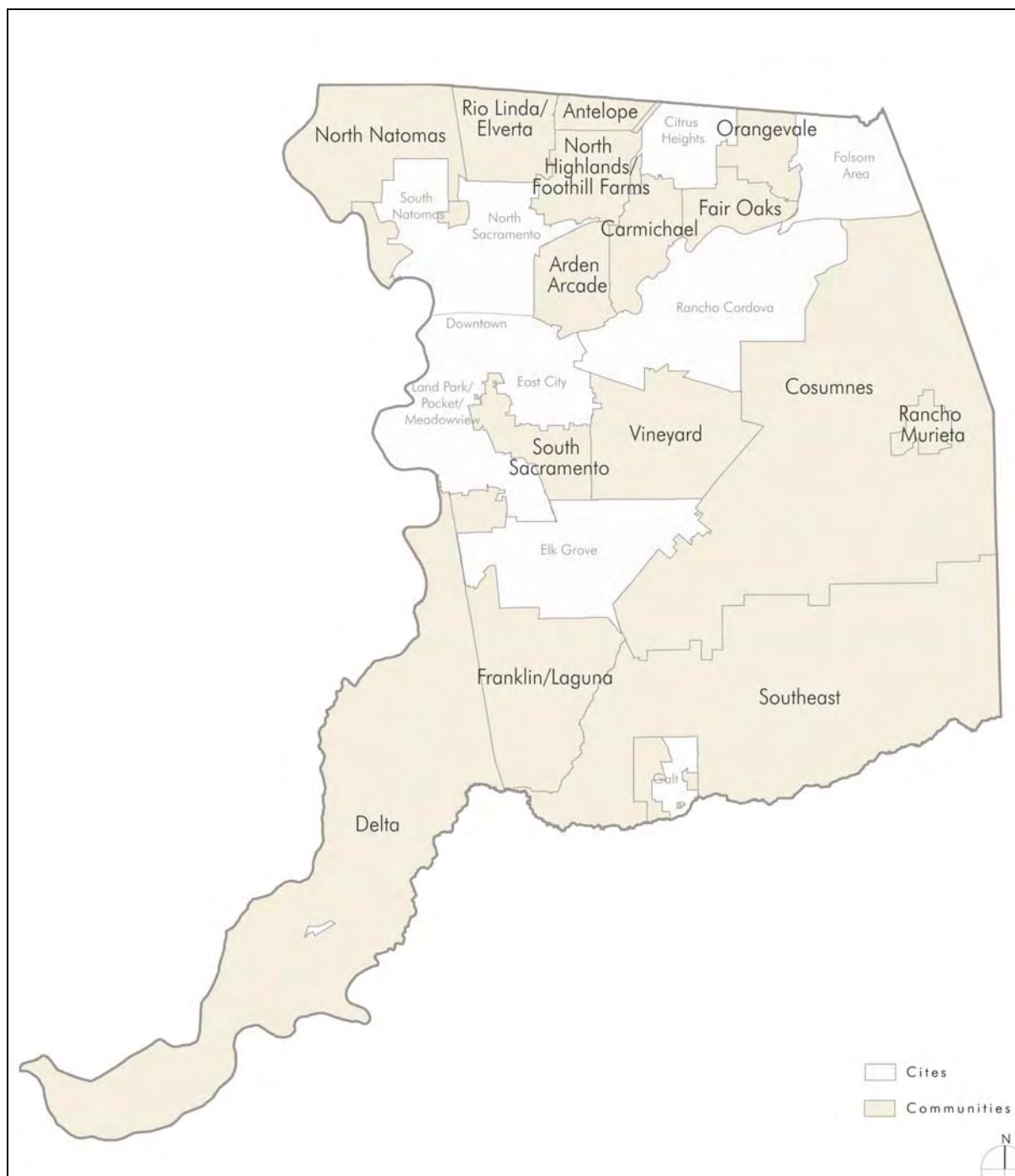
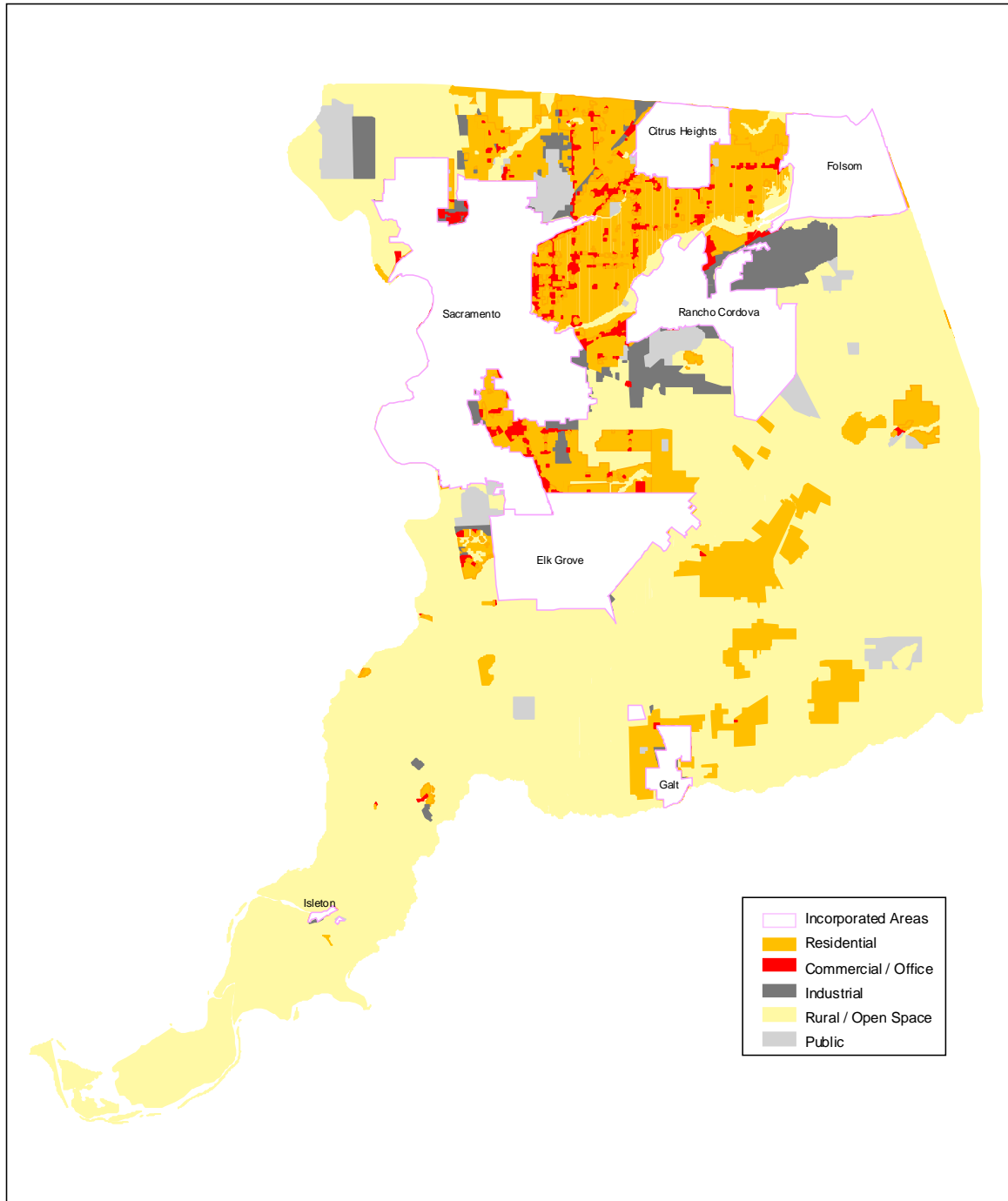


Figure 11: Land Uses in Unincorporated Sacramento County



Demographics

The unincorporated portions of Sacramento County continue to grow in both population and in density (persons per square mile) (Table 5). Between 1990 and 2000, the communities of Antelope and Franklin Laguna were among the areas with the highest increases in density. The densest area of the County is South Sacramento with Arden Arcade, Antelope, Carmichael and North Highlands close behind. The least dense area is North Natomas with the Delta and Cosumnes areas ranking as the second and third least dense areas. Table 1 shows the population growth and resultant densities for the various community areas within unincorporated Sacramento County. For comparison purposes, the City and County of San Francisco has a density of about 16,000 persons per square mile while Los Angeles County has a density of about 2,400 persons per square mile.

Table 5: Population per Square Mile by Community Area

Subarea	Square Miles	Population		Ten Year Growth	Persons per Square Mile Percent Growth		
		1990	2000		1990	2000	Growth
Antelope	6.43	12,221	30,234	18,013	1,900	4,700	59.6%
Arden Arcade	20.31	92,828	95,966	3,138	4,571	4,725	3.3%
Carmichael	10.80	48,176	50,329	2,153	4,461	4,660	4.3%
Cosumnes	157.97	5,384	6,315	931	34	40	15.0%
Delta	163.00	5,502	5,845	343	34	36	5.6%
Fair Oaks	11.18	30,115	32,865	2,750	2,694	2,940	8.4%
Franklin Laguna	65.87	14,859	44,300	29,441	226	673	66.4%
North Highlands	17.12	73,209	74,638	1,429	4,276	4,360	1.9%
North Natomas	41.57	643	1,063	420	16	26	38.5%
Orangevale	10.68	27,180	29,505	2,325	2,545	2,763	7.9%
Rancho Murieta	12.59	2,314	3,960	1,646	184	314	41.4%
Rio Linda	18.83	18,104	19,670	1,566	961	1,045	8.0%
S. Sacramento	29.82	131,769	152,371	20,602	4,419	5,110	13.5%
Vineyard	37.23	5,137	11,051	5,914	138	297	53.5%

Source: Sacramento Area Council of Governments, Facts & Figures, January 2001.

According to the Sacramento Area County of Governments (SACOG), the unincorporated area of Sacramento County had 574,430 residents in 2000, and is projected to increase to 795,545 by 2025. School enrollment is estimated to increase from 86,251 elementary students in 2000 to 126,655 students in 2025.¹ These estimates include Rancho Cordova.

¹ Sacramento Area Council of Governments, *SACOG Projections*, March 2001.

The population growth projected within unincorporated portions of Sacramento County represents 17 percent of the total population growth in the entire Sacramento region. Most of this growth will occur in those areas outside of the existing urban areas. Nevertheless, the growth is within the designated Urban Limit Line. The communities of Antelope, Cosumnes, Franklin Laguna, North Natomas, Rancho Murieta and Vineyard are among the fastest growing communities in the region (Table 6).²

Table 6: Population Projections by Community Area

Community Area	1990	2020	Percent Growth	Comments
Antelope	12,221	38,509	68.3%	
Arden Arcade	92,828	95,862	3.2%	
Carmichael	48,176	51,419	6.3%	
Cosumnes	5,384	38,685	86.1%	Sunrise/Douglas development (16,590 units and 4,430 jobs expected by 2025)
Delta	5,502	6,973	21.1%	
Fair Oaks	30,115	34,727	13.3%	
Franklin Laguna	14,859	112,692	86.8%	Units to grow from 12,900 in 1999 to 41,500 units by 2025; jobs to grow from 5,356 in 1999 to 32,910 in 2025
North Highlands	73,209	74,156	1.3%	McClellan (9,100 jobs expected by 2025)
North Natomas	643	38,467	98.3%	City will develop area using “Smart Growth” techniques; County will preserve restricted areas for farmland and habitat.
Orangevale	27,180	31,768	14.4%	
Rancho Murieta	2,314	10,503	78.0%	3,460 additional units expected by 2025
Rio Linda – Elverta	18,104	25,946	30.2%	
South Sacramento	131,769	178,409	26.1%	
Vineyard	5,117	62,300	91.8%	Build-out expected in 2025 at 26,000 units and 10,500 jobs

Sources: Sacramento Area Council of Governments (SACOG), Regional Data Center, April 1999; SACOG, *Documentation – Projections of Population, Housing, Employment and Primary and Secondary Students*, May 2001.

² Sacramento Area Council of Governments, *Metropolitan Transportation Plan for 2025*, 2002, p. 21.

Pedestrian Demand

This section discusses factors that influence the demand for walk trips. The major factors include adjacent land uses that generate pedestrian demand, community residents who are more apt to walk such as children and lower-income individuals and safety issues that reduce the attractiveness of walking. This pedestrian demand information helps SacDOT better understand how and where to encourage more walking.

Adjacent Land Uses - Activity Centers

The largest reductions in transportation energy consumption are realized with high urban densities, a diversity of land uses and transit-friendly designs. These land uses make it easier to walk so more pedestrians tend to exist when given these options. An explanation of each crucial land use factor is explained below.

Urban Densities

Density of activities and destinations plays an important role in determining how and where we choose to travel. As land use densities increase, per capita automobile usage and trip lengths tend to decrease. For example, New York City has a density of 8.1 persons per acre and a gasoline usage rate of 335 gallons per capita. Phoenix has a density of 3.2 persons per acre and a gasoline usage rate of 532 gallons per capita.

Destinations - Mixed Use

People are more likely to walk, ride a bicycle or take transit when they live within walking distance of destinations such as schools, shops, parks and transit. The more destinations such as shops and services that are available in a neighborhood, the less need there is for patrons to drive out of their neighborhood to access what they need.

A UC Berkeley professor, Robert Cervero (1996) found that mixed land uses play an important role in affecting travel behavior. Using the 1985 American Housing Survey, he found that having grocery and other consumer services within 300 feet of a residence significantly increases the likelihood that a person will walk, ride a bicycle, or ride transit. Nevertheless, beyond 300 feet, mixed-use land uses tend to increase automobile travel.

The presence of neighborhood retail was more important than residential densities (although both play a significant role) in determining the likelihood that a person will choose walking or bicycling.

Urban Design

Urban design also influences travel choices. Design refers to treatments like placing parking lots in the rear of stores, designing street networks in a gridiron pattern, and providing shade trees and sidewalks for pedestrians. Cervero and Gorham (1995) found that in Bay Area cases, neighborhoods with the abovementioned treatments generated about 120 percent more pedestrian and bicycle trips than automobile-oriented neighborhoods.

Activity Centers Summary

In Sacramento County, the “3 Ds” – Density, Destinations and Design – converge mainly along thoroughfares where commercial and office areas and transit routes exist. Figures 12 and 13 illustrate the locations of these types of activity centers. The inventory effort and prioritized projects in the Pedestrian Master Plan focus on these areas with the highest potential pedestrian demand. The figures highlight “at risk facilities,” which include those facilities that serve the elderly, disabled or low income individuals. There are over 200 public schools and over 100 private schools within the unincorporated portions of Sacramento County. These schools include public and private elementary schools, junior high schools and high schools plus the American River Community College.

Figure 12: Activity Centers in Northern Sacramento County

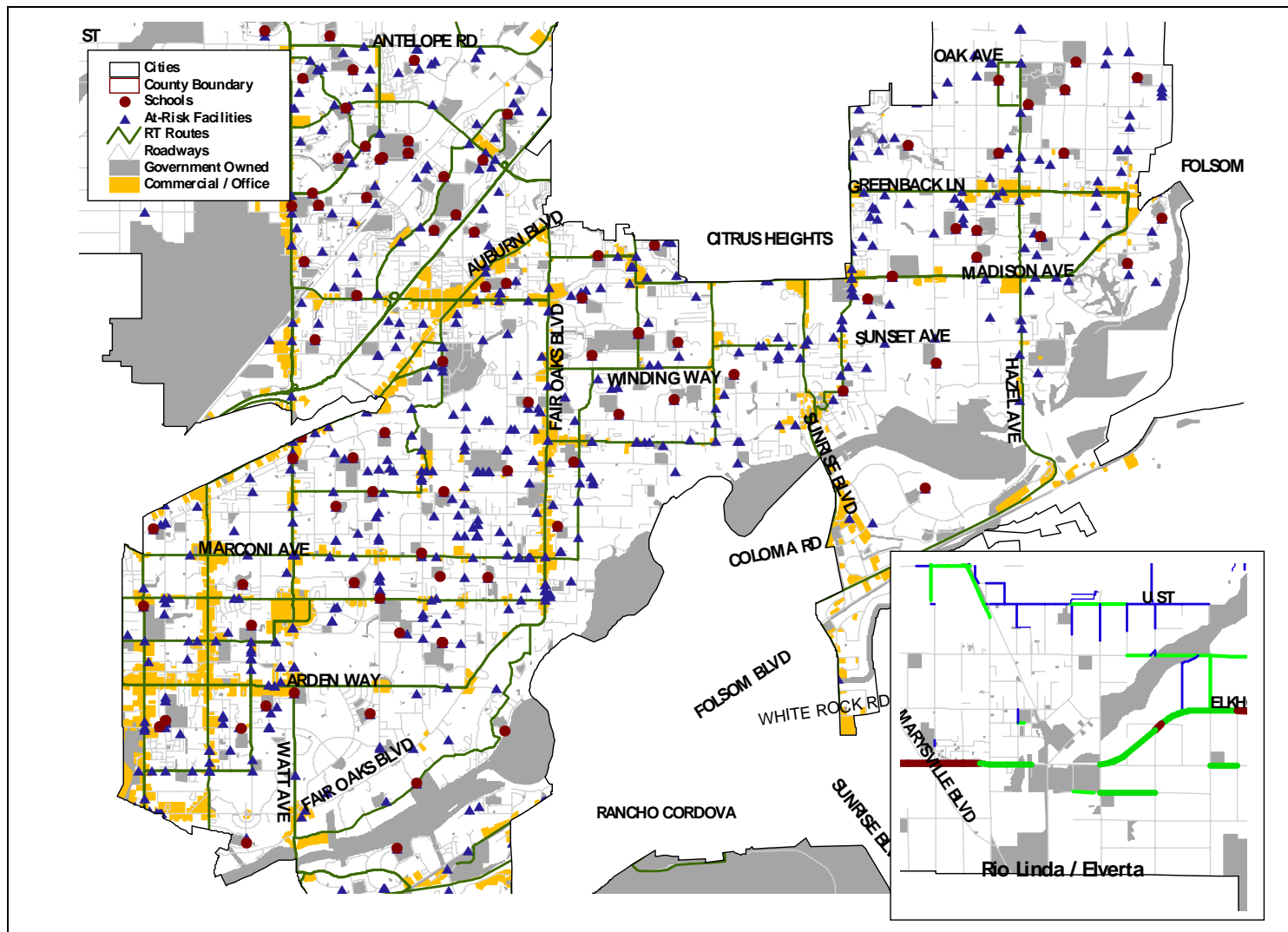
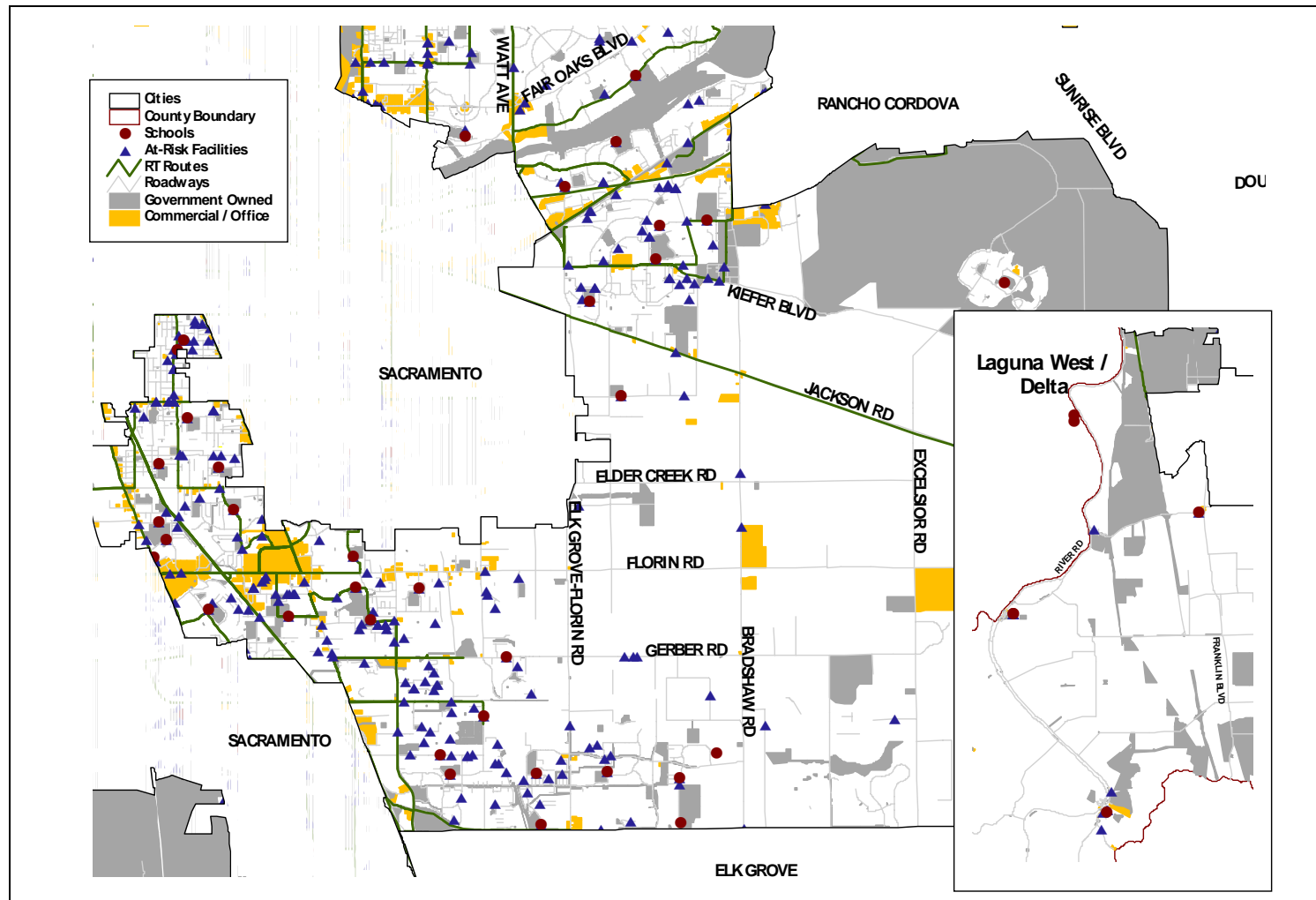


Figure 13: Activity Centers in Southern Sacramento County



Travel Choices

Data for Sacramento Region

Individuals travel around Sacramento County mainly by automobile, public transit, taxi, bicycle and walking. According to the Sacramento Area Council of Governments, 5.9 percent of all daily trips and 6.9 percent of all commute time travel in the Sacramento region occur by bicycle and walking (Table 7). The data on walking and bicycling should be considered low estimates because individuals do not always view their walking or bicycling as “trips” that should be recorded in a survey.

Table 7: Travel Choices in the Sacramento Region

Mode	Daily Trips (Average 24-Hour Weekday)	Commute Time Trips (Average Weekday Peak Periods)
Single-occupancy Vehicle	50.1%	46.4%
Carpool	43.2%	45.7%
Pedestrian/Bike	5.9%	6.9%
Transit	0.8%	1.0%

Source: Sacramento Area Council of Governments, Metropolitan Transportation Plan for 2025, Key Performance Indicators, Conditions in 2000.

Income as a Primary Determinant

The 1995 Nationwide Personal Transportation Survey (NPTS) shows that income is a primary determinant of the type of transportation that individuals will use – private auto, walking, bicycling or transit. Households with annual incomes of \$15,000 or less are more apt to walk (12.8 percent of all trips) as compared to households with annual incomes of \$80,000 or more, which reflect walking at 5.0 percent of all trips. Low-income households tend to make shorter trips (five miles per day) as compared to higher-income households with an average trip length of seven miles per day. Low-income households also make fewer trips at 3.4 trips per day per person compared to high-income households at 4.6 trips per day per person.

Age as a Primary Determinant

Recent studies show that travel behavior changes with age. Children between the ages of 5 and 15 years old walk far more than people in other age groups. Most individuals decrease the amount of walking they do until they reach retirement age, when walking becomes more popular. Table 8 shows that the percent of walking trips totals 11.4 percent for children between 5 and 15 years old. This percentage gradually declines as age increases until the retirement age of 65 years old when walking increases to 5.8 percent.

Table 8: Age Impacts on Modal Choice (Percent of Urban Trips)

Mode of Travel	5-15	16-24	25-39	40-64	65+	All
Total auto	73.0%	87.3%	90.9%	92.6%	90.9%	88.3%
HOV ^a	72.3%	45.9%	42.4%	37.4%	39.9%	45.5%
SOV ^b	0.5%	41.3%	48.5%	55.1%	50.8%	42.8%
Total transit	1.8%	3.1%	2.3%	2.0%	2.2%	2.2%
Bus and light rail ^c	1.5%	2.1%	1.4%	1.3%	1.9%	1.5%
Metro, subway, heavy rail ^d	0.2%	0.7%	0.7%	0.5%	0.2%	0.5%
Commuter rail ^e	0.1%	0.3%	0.3%	0.2%	0.1%	0.2%
School bus	10.1%	1.1%	0.1%	0.1%	0.1%	1.7%
Taxicab	0.1%	0.2%	0.3%	0.2%	0.2%	0.2%
Bicycle	3.3%	1.0%	0.5%	0.3%	0.2%	0.9%
Walk	11.4%	6.7%	5.2%	4.2%	5.8%	6.1%
Other ^f	0.2%	0.5%	0.6%	0.7%	0.6%	0.6%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Nationwide Personal Transportation Survey (NPTS), 1995.

a. HOV includes vehicles with two or more occupants.

b. SOV includes vehicles with driver and no passengers.

c. Light rail also includes conventional streetcars.

d. Metro/subway/heavy rail includes elevated rail and rail rapid transit.

e. Commuter rail includes suburban/regional rail systems and short distance service provided by Amtrak.

f. Other includes motorcycles, ferries, airplanes, helicopters, boats, horses and funiculars/incline planes.

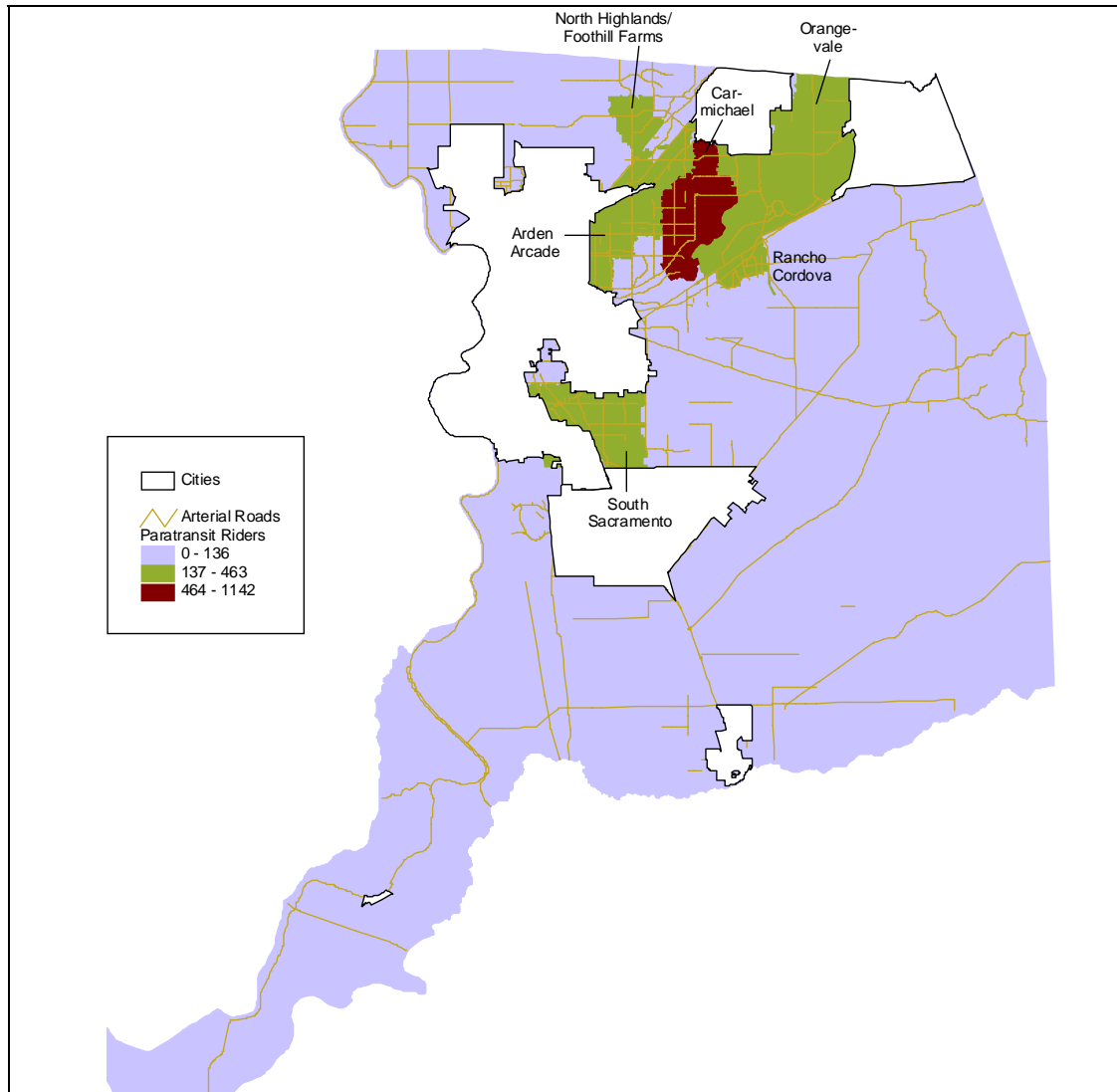
Paratransit Usage

Paratransit generally refers to special transit services for seniors and individuals with physical disabilities. Paratransit, Inc. operates the Paratransit service within the County. The agency offers a door-to-door and shared ride service for individuals who are unable to use Regional Transit buses and the light rail system in the greater Sacramento area. In some cases, paratransit clients are not able to access the fixed route

systems because the path of travel between their home and the bus stop is not accessible.

Data provided by Paratransit was analyzed to ensure that the Pedestrian Master Plan adequately addresses the needs of paratransit clients. An evaluation of their residential locations found that the almost 5,000 users in their system are dispersed throughout unincorporated Sacramento County. There are some areas of higher than average usage, which include Carmichael, Fair Oaks, North Highlands / Foothill Farms, Arden Arcade, South Sacramento and the developed portions of Rancho Cordova (Figure 14).

Figure 14: Paratransit Riders by Zip Code



Source: Paratransit, Inc., 2002.

Pedestrian Safety Issues

Safety concerns prevent some individuals from walking more frequently. Pedestrians have conflicts primarily with motor vehicles; however, conflicts between other non-motorized travelers also occur. This section analyzes pedestrian-motor vehicle collisions. Collision data helps identify specific areas where updates to existing policies and planning efforts can be made to improve pedestrian safety.

Pedestrian-Motor Vehicle Collision Data

The collision data originate from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS) database, which is a compilation of collisions reported and collected by local police departments and other law enforcement agencies. Since parties involved in minor collisions are unlikely to report them to law enforcement, this database is a subset of collisions involving pedestrians. This subset of data most likely represents the more severe collisions, since the collisions that are reported tend to involve injuries or law enforcement personnel.

Pedestrian-motor vehicle collisions have remained relatively stable in unincorporated Sacramento from 1996 to 2001 (Table 9). The average number of pedestrian fatalities totals 12 per year; the average number of pedestrian injury collisions totals 210; and the average number of non-injury pedestrian collisions totals eight. Almost one-third of all pedestrian collisions in unincorporated Sacramento County involve children under 14 years old.³

Table 9: Pedestrian-Involved Motor Vehicle Collisions (1996 – 2001)

Year	Fatalities	Injuries	Non-injuries
1996	11	229	3
1997	14	213	12
1998	15	201	8
1999	14	212	3
2000	7	211	10
2001	13	192	14
Total	74	1,258	50
Average	12	210	8

Source: SWITRS, 1996-2001

³ http://www.sacdot.com/services/Adult_Crossing_Guard.asp

The SWITRS data identifies corridors (Table 10) and intersections (Table 11) with a high number of collisions, fatalities and casualties involving pedestrians in unincorporated Sacramento from 1996 to 2001. The collision column shows the number of collisions that occurred at each corridor or intersection. Data shown in the below tables were used to prioritize pedestrian improvement projects.

The streets shown in the below table are mainly arterials that bisect the unincorporated area and carry high volumes of motorists traveling at or above 35 miles per hour. Of all the corridors, Howe Avenue has the highest number of collisions per mile, Martin Luther King, Jr Blvd. has the highest number of fatalities per mile, Watt Avenue has the highest number of collisions and casualties, and Folsom Blvd. has the highest number of fatalities. For the intersections, Fulton Avenue at Hurley Way ranks highest for the number of collisions, non-severe injuries and total casualties.

Table 10: Corridors with High Collisions per Mile

Corridor	Colli- sions	Fatal- ities	Casual- ties	Miles	Collisions / Mile	Fatal- ities/ Mile
Howe Avenue	36	1	38	3.4	10.6	0.3
Fulton Avenue	37	5	34	4.0	9.3	1.3
Marconi Avenue	41	5	42	4.9	8.4	1.0
MLK Jr Blvd.	10	3	10	1.4	7.1	2.1
47 th Avenue	12	2	12	2.1	5.8	1.0
Watt Avenue	70	8	65	12.3	5.7	0.7
Hillsdale Blvd.	14	0	17	2.5	5.6	0.0
Hurley Way	7	0	7	2.0	5.6	0.0
Arden Way	25	1	23	4.7	5.3	0.2
Manzanita Avenue	13	0	14	2.5	5.2	0.0
El Camino Avenue	25	5	22	4.9	5.1	1.0
Madison Avenue	48	1	42	10.4	4.6	0.1
Stockton Blvd.	27	0	25	5.9	4.6	0.0
Edison Avenue	16	1	16	3.6	4.4	0.3
Florin Road	44	3	36	11.6	3.8	0.3
Folsom Blvd.	42	11	49	11.6	3.6	0.9
65 th Street	5	0	5	1.4	3.6	0.0
Mather Field Road	5	0	5	1.4	3.6	0.0
San Juan Avenue	8	0	9	2.2	3.6	0.0
College Oak Drive	6	0	8	1.7	3.5	0.0
Auburn Blvd.	19	1	21	5.8	3.3	0.2
Walerga Road	14	1	13	4.7	3.0	0.2
Coloma Road	12	1	14	4.3	2.8	0.2
Northrop Avenue	5	1	7	1.9	2.6	0.5
Fair Oaks Blvd.	39	6	35	15.0	2.6	0.4
Eastern Avenue	7	0	7	3.7	1.9	0.0
Fruitridge Road	5	1	6	2.6	1.9	0.4

Source: SWITRS, 1996-2001

Table 11: Intersections with High Collisions

Locations	Colli sions	Fatalities	Severe Injuries	Other Injuries	Total Injuries	Total Casualties
Fulton Ave at Hurley Way	11	1	1	10	11	12
Florin Rd at 65th St	9	0	0	8	8	8
Franklin Blvd at Florin Rd	9	0	1	7	8	8
Fair Oaks Blvd at Marconi Ave	7	1	3	5	8	9
Folsom Blvd at Coloma Rd	7	0	1	7	8	8
Folsom Blvd at Manlove Rd	7	2	2	5	7	9
Fulton Ave at Marconi Ave	7	1	1	5	6	7
Howe Ave at Arden Way	7	0	0	8	8	8
Madison Ave at Auburn Blvd	7	0	1	6	7	7
Madison Ave at Manzanita Ave	7	0	0	6	6	6
Florin Rd at East Pkwy	6	0	0	4	4	4
Fulton Ave at Edison Ave	6	1	0	4	4	5
Madison Ave at Hillsdale Blvd	6	0	0	6	6	6
Marconi Ave at Walnut Ave	6	1	1	5	6	7
Watt Ave at Elkhorn Blvd	6	0	1	4	5	5
Watt Ave at Larchmont Dr	6	1	1	4	5	6
Watt Ave at A St	6	1	0	4	4	5
College Oak Dr at Myrtle Ave	5	0	1	5	6	6
Florin Rd at Stockton Blvd	5	0	3	2	5	5
Folsom Blvd at Mills Park Dr	5	2	1	3	4	6
Hillsdale Blvd at Greenholme Dr	5	0	0	7	7	7
Howe Ave at El Camino Ave	5	0	2	3	5	5
Howe Ave at Hurley Way	5	0	1	2	3	3
Marconi Ave at Eastern Ave	5	0	0	5	5	5
Martin Luther King Jr Blvd at 47th Ave	5	0	1	3	4	4
Watt Ave at Arden Way	5	0	1	4	5	5
Watt Ave at El Camino Ave	5	2	0	3	3	5
Watt Ave at Marconi Ave	5	0	1	4	5	5
Watt Ave at Whitney Ave	5	0	1	5	6	6
Cottonwood Ln at Cavendish Way	4	0	0	5	5	5
El Camino Ave at Darwin St	4	1	0	3	3	4
Fair Oaks Blvd at Manzanita Ave	4	1	0	3	3	4
Folsom Blvd at La Loma Dr (W)	4	1	0	3	3	4
Hillsdale Blvd at Walerga Rd	4	0	1	4	5	5
Howe Ave at Alta Arden Expressway	4	0	0	5	5	5
47th Ave at Vista Ave	3	2	1	1	2	4
Fair Oaks Blvd at Robertson Ave	3	1	0	3	3	4
Greenback Ln at Walnut Ave	3	1	0	4	4	5
Folsom Blvd at Norcade Circle (W)	2	2	1	2	3	5
Howe Ave at Wyda Way	2	0	0	5	5	5

Source: SWITRS, 1996-2001

Pedestrian Roadway Infrastructure Components

The unincorporated portion of Sacramento County has many sidewalks, walkways and trails; however, gaps exist within the system. This section focuses on pedestrian facilities (i.e., sidewalks, street crossings and multi-use paths) that exist within the study area, the maintenance of these facilities and designated truck routes to ensure that appropriate pedestrian safety measures are taken on these key routes.

The pedestrian facility type varies depending on the location within the unincorporated area. For example, the Vineyard area has a substantial amount of rural-residential homes serving an average of one single-family unit per acre. The streets in these areas usually have shoulders with drainage ditches and no sidewalks. The Carmichael and Arden Arcade areas primarily consist of older post-World War II subdivisions that include a number of different standards for curbs, gutters and sidewalks. North Natomas is a recently developed area whose construction conforms with pedestrian-friendly standards.

For information on how pedestrian facilities should be constructed, reference should be made to the companion documents titled Sacramento County Pedestrian Design Guidelines and the Sacramento County ADA Transition Plan.

Pedestrian Crossings

The design of adequate pedestrian facilities at intersections and midblock crossings requires consideration of the following issues:

- Curb ramps
- Crosswalks
- Crossing islands
- Pedestrian-oriented signals
- Signal timings
- Sight distance

Curb Ramps

Many of the County's existing intersections have curb ramps; however, the ramps do not always comply with current ADA standards. The County requires that each corner of an intersection have two curb ramps. Each curb ramp must have

detectable warnings, landings, ramps and flared sides that meet County standards.

Crosswalks

The California Vehicle Code states that a street crossing or crosswalk is the portion of roadway at an intersection that represents extensions of the sidewalk lines, or any portion of the roadway distinctly indicated for pedestrian crossing.

Marked crosswalks help channelize pedestrians so that motorists know where to look for them. SacDOT installs and maintains striped crosswalks in the unincorporated area at signalized intersections and considers them at STOP controlled intersections.

Crossing Islands

Crossing islands, which also are known as pedestrian refuges, help increase the safety and comfort for pedestrians crossing multi-lane streets. Pedestrian refuges are recommended when crossing distances exceed 60 feet. To accommodate a pedestrian with a bicycle, a crossing island should be at least six feet wide.

Pedestrian-oriented Signals

All traffic signals in unincorporated Sacramento County are designed with pedestrian-activated signals. Accessible pedestrian signals (APS), which have audible and tactile capabilities, are recommended when installing signals. A consistent height, size, location and type of push button is important to help visually impaired individuals locate and use these signals. New traffic signals in the County include pedestrian countdown signal heads as a standard installation. Studies show that fewer pedestrians walk during the steady DON'T WALK phase with these signal devices.

Signal Timings

In Sacramento County, pedestrians are typically allowed seven seconds of the WALK phase and four feet per second during the flashing UPRAISED HAND phase. When considering these two phases, the walking speed is slower than the national standard. Nevertheless, complaints have been registered by pedestrians stating that the pedestrian crossing times are too short. SacDOT responds by evaluating the signal timings to

determine if there are extenuating circumstances, which warrant adding time to the walk phase. When making these adjustments, SacDOT considers the needs of not only pedestrians using a particular intersection, but also of motorists, transit riders and bicyclists.

Sight Distance

Both non-fixed and fixed obstructions can block motorists' and pedestrians' ability to see street activity. Fixed obstructions such as fences and landscaping adjacent to street corners generally are maintained below two feet or removed to improve sight lines. The sight distances associated with non-fixed obstructions such as parked cars typically are improved by requiring parking restrictions within 250 feet of intersections or by installing curb extensions.

Walkways

Walkways in Sacramento County include sidewalks, multi-purpose shoulders, pedestrian pathways, pedestrian overpasses and multi-use paths.

Sidewalks

SacDOT maintains over 2,800 miles of curb and gutter within existing roadways.⁴ The number of sidewalk miles is not known; however, the amount is less than that of curb and gutter mileage.



Walking conditions are most improved with the provision of sidewalks. Studies show that sidewalks reduce walking along roadway conflicts by 50 to 90 percent. The pedestrian environment also is enhanced with the presence of on-street parking, buffers, trees within the buffers and low traffic volumes and vehicular speeds. The pedestrian level-of-service model, which is described in the next chapter under “Inventory Results,” quantifies these factors that improve the perception of pedestrian comfort and safety.

The Sacramento County Pedestrian Design Guidelines recommends variable sidewalk widths depending on the adjacent land uses and roadway type. The minimum sidewalk

⁴ SacDOT Factoids: <http://www.sacdot.com/>

width is five feet; collectors, arterials and thoroughfares are recommended to have a minimum seven foot sidewalk; land uses with high pedestrian demand such as schools are recommended to have an eight foot sidewalk.

Multi-Purpose Shoulders

In rural areas, multi-purpose shoulders are constructed as an interim or build-out condition. For interim cases, road widenings and sidewalk installations occur when adjacent land uses develop. Sidewalk improvements might not be required and depend on a residential area's density. For example, sidewalk improvements are not required in a one-house-per-acre subdivision. Sidewalks are included in some roadway improvement projects to help fill sidewalk gaps.

Currently, SacDOT does not construct sidewalks in rural areas. This policy exists because many residents in the rural portions of the County prefer to have roadways that reflect a more rural setting without curbs, gutter and sidewalks. Regardless, SacDOT is committed to meeting the needs of individuals who use wheelchairs or are blind by incorporating sidewalks when appropriate.

Pedestrian Pathways

SacDOT maintains a system of pedestrian pathways that provide access in residential developments. Most of the pedestrian pathways that were once included in subdivisions have been abandoned because there was a fear or perception of crime associated with them or connectivity with other pedestrian facilities did not exist. The original intent of these pathways may have been lost, over time, with the development of more subdivisions that do not include pedestrian-friendly amenities.

Pedestrian Overpasses

Pedestrian overpasses that cross major facilities are as follows:

- Interstate-80 (I-80): Elkhorn & Greenback (Antelope/Foothill Farms)
- I-80: 5221/ 5225 Verner Ave (Antelope/Foothill Farms)
- I-80: 6041/ 6045 Jeanine Dr. (Antelope/Foothill Farms)
- State Route (SR) 99: 44th Avenue to 44th Ave. (Florin)
- SR 99: 6857 Chevy Chase at Turnbridge Dr. (Florin)
- SR 50: Salmon Falls Dr. to Montrose St. (La Riviera)

Multi-use Paths

A multi-use path is a facility that is designed to accommodate pedestrians, bicyclists and other non-motorized users. These facilities are provided as alternatives to sidewalks and on-street bicycle lanes.

Multi-use paths can be along existing vehicular facilities or designed to link important destinations without being within or adjacent to public motor vehicle facilities.



Source: www.pedbikeimages.org / Dan Burden

Multi-use paths are considered to be one of the potential tools to improve pedestrian safety. Individuals with disabilities and other trail users have expressed concerns about the lack of separation between the various non-motorized users such as bicyclists, skateboarders, pedestrians and in-line skaters. Design strategies should be considered to help separate the users, such as pavement markings as shown in the above photo inset. Furthermore, several requests have been made for equestrian use on trails.

Existing Multi-use Paths

Various agencies maintain the existing multi-use paths within unincorporated Sacramento County. Major paths that exist today function primarily as recreational trips for pedestrians:

American River Parkway:

Located between the Cities of Folsom and Sacramento, this trail totals over 30 miles (see inset). The County Parks, Recreation and Open Space Department maintains the trail.



Arcade Creek Nature Area Trail: This trail is used by pedestrians going to/from Arden Creek Park, American River College and adjacent neighborhoods. The trail is maintained by the Arcade Creek Recreation and Park District.

Dry Creek Parkway: The proposed Dry Creek Parkway will serve bicyclists, pedestrians and equestrians, which will

eventually extend 70 miles. In the north, it will start at the Placer County border adjacent to Gibson Ranch, and then will travel through the Rio Linda/Elverta area. The trail will be maintained by the County's Parks, Recreation and Open Space Department.

Folsom South Canal Trail: This trail travels from Hazel Avenue south of the American River to below Grantline, and is maintained by the U.S. Bureau of Reclamation.

Laguna Creek Parkway: This trail runs east/west along the north and south sides of Laguna Creek intersecting at Vineyard Road. The Vineyard Road trail crossing is on the south side of Laguna Creek and the bridge. A proposed trail will connect with the Laguna Creek Trail, and will continue south of the Elk Grove City border. It will continue westward south of Sheldon Road until Bruceville Road. This trail is maintained by the Southgate Parks and Recreation Department.

Sacramento Northern Bike Trail: This trail is located between Ascot Avenue and Rio Linda. This trail is maintained by SacDOT.

Tillotson Parkway: This neighborhood greenbelt eventually will run east/west between Power Inn Road / Meadowview Drive and Bradshaw Road. The existing segment is between Power Inn Road and Elk Grove-Florin Road. It runs through a residential community, and crosses the following streets: Pixley Way, Auberry Drive, Spengler Drive, Vintage Park Drive, Kentshire Way, Elk Grove-Florin Road, Waterman Road and Kingsbridge Drive. When Caymus Drive is extended, the trail also will cross there. This trail is maintained by the Southgate Parks and Recreation Department.

Multi-use Paths in Adjacent Communities

Multi-use paths provide the most continuity when they connect to similar facilities in adjacent jurisdictions. Most of the jurisdictions adjacent to unincorporated Sacramento have multi-use paths that could be connected with facilities in the unincorporated areas when appropriate such as:

Elk Grove Community Services District: Has a network of existing and planned multi-use trails along many of its developed waterways.

City of Sacramento: There is a greenbelt trail running north through the Pocket area in the City of Sacramento as well as the Sacramento River Trail, which runs from the Pocket area to Miller Park.

City of Citrus Heights: There are a few relatively short trails within the City of Citrus Heights.

City of Folsom: Is developing an impressive network of multi-use paths.

City of Rancho Cordova: Maintains a bike trail along Sunrise Boulevard between Coloma Road and Folsom Boulevard.

Maintenance

SacDOT maintains a variety of infrastructures that either directly or indirectly pertain to the pedestrian environment. For example, SacDOT maintains over 140,000 traffic signs, 33,000 legends, 8,000 miles of striping, 140,000 pavement markers, 150 miles of bikeways, 75 pathways, 405 bridges including 6 movable bridges and 36 pedestrian bridges, 225 centerline miles of arterials, 402 miles of collectors, and 1,681 miles of residential roads.⁵

SacDOT also maintains over 140,000 street trees, 31,394 street luminaries, 13 miles of landscaped medians, 21 miles of truck-watered landscaping and 120 acres of maintained landscaping throughout the County.⁶ The Landscape Design and Tree Section of SacDOT is responsible for the County's landscape design and planning activities. These activities include preparing landscape plans and administering the plan review process. The Contract Landscape Maintenance Section (CLMS) oversees the landscape maintenance activities performed by contractors.

As part of the County's maintenance activities, there are some programs that directly impact pedestrians. These programs are discussed below.

Curb, Gutter and Sidewalk Maintenance Program

SacDOT has an on-going Curb, Gutter and Sidewalk Maintenance Program. The program tracks known damaged locations of existing curbs, gutters and sidewalks, prioritizes proposed projects based on the severity of damage and pedestrian volumes, and schedules repairs or replacements depending on the need. A project is added to the priority list when a complaint is logged and when it meets specific criteria such as ADA compliance, excessive cracking or spalling.

⁵ SacDOT Factoids: <http://www.sacdot.com/>

⁶ SacDOT Factoids: <http://www.sacdot.com/>

Elderly and Disabled Accessibility Program

The Elderly and Disabled Accessibility Program provides or replaces curb ramps and audible signals. The Physical Access Subcommittee uses the County's ADA Codes and Standards to rank project requests that are received from community members, and makes recommendations on projects to SacDOT.

Pavement Maintenance

The County's Pavement Management System (PMS) evaluates, tracks and ranks pavement conditions. SacDOT inspects the roadways from annually to once every three years depending on the roadway type. Pavement maintenance is provided for the highest ranking roadway segments.⁷

Designated Truck Routes

When developing potential pedestrian projects, SacDOT should address the need for large trucks to operate within unincorporated Sacramento County. Trucks that are longer than the legal limit are called Surface Transportation Assistance Act (STAA) trucks. The STAA of 1982 allows these longer trucks to operate on interstates and on designated primary routes. These trucks have wider turning radius so may ride up on sidewalks if inadequate width is provided. Extra pedestrian safety measures along these primary truck routes such as separated sidewalks are warranted to ensure that pedestrians and trucks are properly separated. Table 12 and Figure 15 show the STAA designated truck routes in Sacramento County.

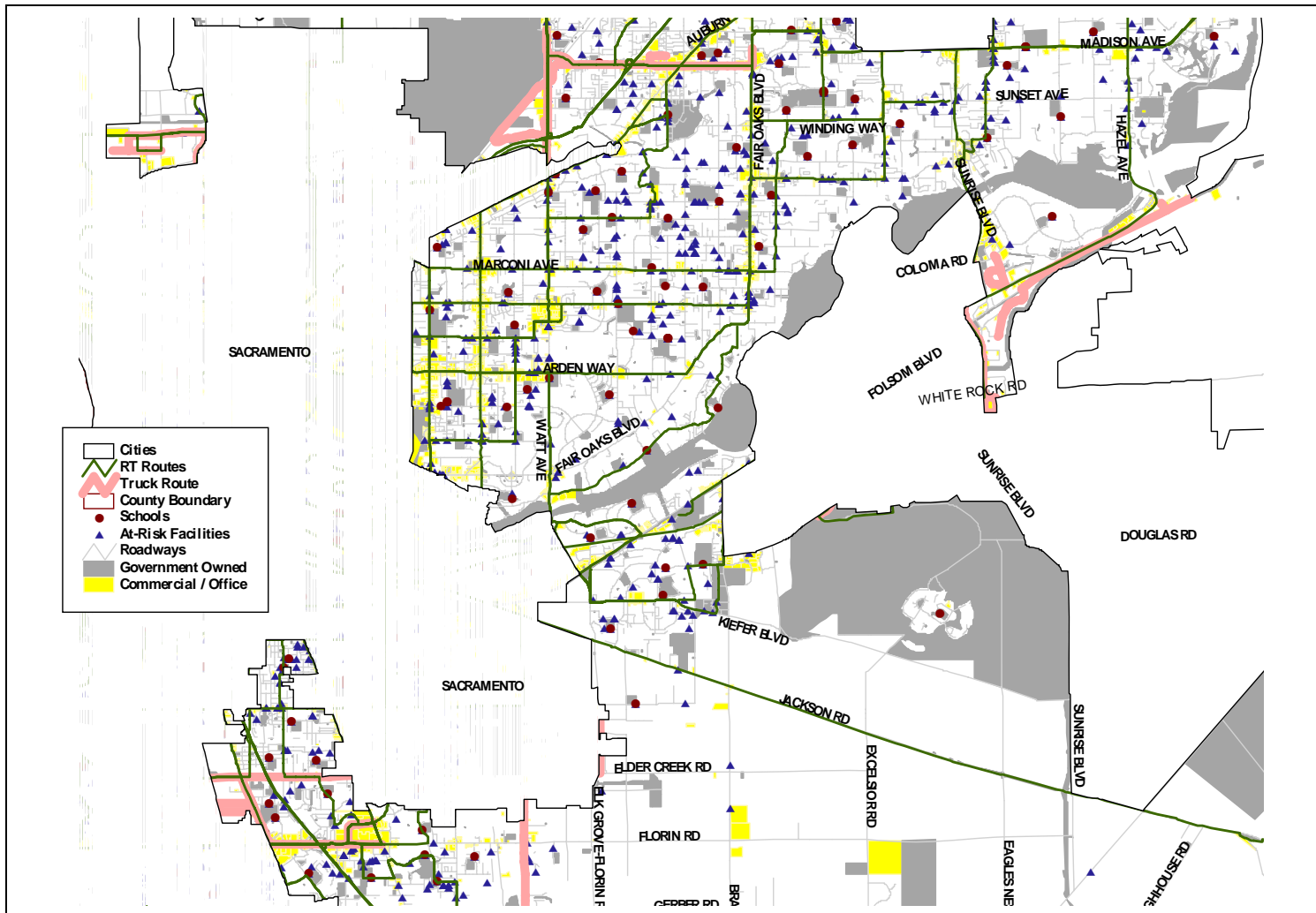
⁷ <http://www.sacdot.com/services/Pavement.asp>

Table 12: Sacramento County Designated STAA Truck Routes

Street	Endpoints
47 th Avenue	Sacramento City Limit to Sacramento City Limit
51 st Avenue	Franklin Blvd. to Connector Street
52 nd Avenue	Franklin Blvd. to Connector Street
65 th Street	Florin Road to Stockton Blvd.
Air Base Drive	Watt Avenue to Madison Avenue
Chippendale Drive	Date Avenue to END
Date Avenue	Madison Avenue to Chippendale Drive
Douglas Road	Sunrise Blvd. to Security Park Drive
Florin Road	Sacramento City Limit to Stockton Blvd.
Folsom Blvd.	Hazel Avenue to Mercantile Drive
Franklin Blvd.	Florin Road to 47 th Avenue
French Road / Florin-Perkins Road	Gerber Road to Sacramento City Limits
Hazel Avenue	US 50 to Folsom Blvd. to Aerojet Road
Madison Avenue	Roseville Road to Manzanita Avenue
Manzanita Avenue	Madison Avenue to Ellerslee Drive
Mather Field Drive	US 50, Rockingham, Old Placerville, Systems Parkway
National Drive	West terminus to N. Market Blvd.
North Market Blvd.	Northgate Blvd. to Sierra Point Drive
Northgate Blvd.	Interstate 80 to North Market Blvd.
Orange Grove Avenue	Watt Avenue to Roseville Road
Roseville Road	Orange Grove Avenue to Madison Avenue
Sierra Point Drive	North Market Blvd. to National Drive
South Watt Avenue	Elder Creek Road to Fruitridge Road
Sunrise Blvd.	US 50 to Douglas Road
Sunrise Blvd.	US 50 to Coloma Road
Walnut Grove Road	Railroad Avenue to Sacramento / San Joaquin County Line
Watt Avenue	Business 80 to A Street

Source: <http://www.sacdot.net/>

Figure 15: Designated Truck Routes in Unincorporated Sacramento County



Pedestrian Master Plan Infrastructure Surveys

This section summarizes the findings from fieldwork and public input efforts related to the Pedestrian Master Plan. As part of this effort, SacDOT conducted field studies throughout the unincorporated area to collect data on both pedestrian and ADA-related facilities. The inventory results provided the study team with locations of missing or incomplete pedestrian facilities, and then were used to identify and prioritize projects for the Pedestrian Master Plan. The ADA-related data was collected for the ADA Transition Plan.

Additional data collection efforts included gathering existing data from the public primarily via the consumer survey. The consumer survey results were used to prioritize pedestrian improvement projects.

Inventory Results

Background

The principal objective of the existing conditions inventory is to provide a baseline of walking conditions. The study team targeted the locations for the fieldwork using the two following criteria - adjacent land uses and roadway classifications. All intersections and roadway segments were classified as Priority Level 1 (high priority), Priority Level 2 (medium priority) or Priority Level 3 (lower priority) using the County's Interim Policy on Street and Sidewalk Access Improvement Priorities.

High Priority Intersections and Roadway Segments (Level 1)

- Arterials/Thoroughfares: Street width between 67 and 84 feet.
- Level 1 intersections and roadway segments located adjacent to state and local government buildings, including:
 - County-owned facilities
 - Public schools (approximately one-quarter mile radius for the main streets)
 - Hospitals, health clinics and health centers (public and private)
 - Sheriff's facilities

- Transportation hubs (includes bus lines and transit stations)
- Department of Motor Vehicles offices
- County parks
- Jails

For these high priority intersections and roadway segments, surveyors measured a variety of detailed accessibility and pedestrian data as shown on the following page.

Medium Priority Intersections and Roadway Segments (Level 2)

- Collectors: Street width between 56 and 66 feet.
- Level 2 intersections and roadway segments located adjacent to public accommodations such as:
 - Shopping malls, supermarkets and strip retail centers
 - Public housing and homeless shelters, including senior facilities and rehabilitation facilities
 - Major employment sites
 - Housing complexes, including apartments

For these medium priority intersections and roadway segments, surveyors also measured the detailed accessibility and pedestrian data.

Lower Priority Intersections and Roadway Segments (Level 3)

- Single-family residential areas
- Industrial areas
- Other areas not classified as Priority Level 1 and 2

For the walking conditions analysis, surveyors collected data for Level 1 and 2 roadway segments only. The pedestrian level of service methodology, as described in the next section, typically reveals that low volume residential streets are comfortable for most pedestrians. To complement this methodology, the surveyors' data collection focused primarily on arterials and streets with land uses that generate high pedestrian demand.

ADA Facility Data Collection Items (ADA Transition Plan)

- Change in level greater than one-half inch
- Bus shelter and its dimensions
- Change in level greater than one-half inch at bus shelter
- Cross slope of bus pad
- Crossing prohibited
- Crosswalks
- Curb height
- Curb ramps
- Directional corner of intersection
- Intersection geometry
- Islands
- Median information (e.g., disabled access, curb and ramp data)
- Obstructions and obstacles
- Pedestrian signals
- Prohibited direction
- Sidewalk present
- Sidewalk width
- Tactile guidestrips
- Traffic control
- Transit stop type

If a curb ramp was not present at a particular corner, the following data were collected:

- Curb type
- Flush corner

If a curb ramp was present (either one or two at a corner), the following data were collected for each curb ramp:

- Car obstruction
- Common landing
- Curb ramp type
- Curb type
- Detectable warnings
- Grooved border
- Gutter slope
- Lip
- Location in crosswalk

- Main slope
- Main cross slope
- Side slope(s)
- Slip-resistant surface
- Orientation of curb ramp (straight or diagonal, relative to nearby streets and intersections)
- Top landing depth
- Transition slope
- Width

Pedestrian Facility Data Collection Items (Pedestrian Master Plan)

- Curb type
- Designated bike lane
- Lane configuration
- Mid-block crossings (including data on medians and curb ramps)
- Number of travel lanes
- Obstructions and obstacles
- Percentage of occupied on-street parking spaces
- Parking type
- Posted speed limit
- Roadside profile condition
- Sidewalk condition
- Sidewalk percentage
- Traffic direction, if one-way
- Tree spacing in buffer
- Width of buffer
- Width of sidewalk
- Width of pavement (outside lane)
- Width of pavement (between the outside lane stripe and the edge of pavement)
- Width of pavement (striped for on-street parking)

Inventory Methodology – Pedestrian Level of Service

The walking condition or type of pedestrian environment is an important factor in determining the need for improved pedestrian facilities. Typically, public perception of pedestrian comfort and safety with respect to the roadside environment provides the best means to measure walking conditions. Pedestrians feel comfortable when the following attributes exist:

- Wide outside lanes
- On-street parking
- Buffer areas between the motor vehicle travel lane and walkway
- Sidewalks
- Low motor vehicle speeds and volumes
- Few travel lanes

Walking conditions for each roadway segment were evaluated using the abovementioned variables according to the Pedestrian Level of Service (LOS) model. The Pedestrian LOS model's mathematical formula and the definition of its terms are as follows:

$$\text{Pedestrian LOS} = -1.2021 \ln(Wt + fp \times \%OSP + fb \times Wb + fsw \times Ws) + 0.253 \ln(\text{Vol15}/L) + 0.0005 \text{SPD}^2 + 5.3876 \quad (1)$$

Where:

Wt	=	Width of outside lane (feet)	
fp	=	On-street parking effect coefficient (= 0.20)	
%OSP	=	Percent of segment with on-street parking	
fb	=	Buffer area barrier coefficient (= 5.37 for trees spaced 20 feet on center)	
Wb	=	Buffer width (distance between edge of pavement and sidewalk, measured in feet)	
fsw	=	Sidewalk presence coefficient = $6 - 0.3W_s$	(2)
Ws	=	Width of sidewalk (feet)	
Vol15	=	Average traffic during a fifteen minute period	
L	=	Total number of through lanes in both directions	
SPD	=	Average posted speed of motor vehicle traffic (miles per hour)	

The Pedestrian LOS score, which results from the equation, is stratified into service categories “A, B, C, D, E and F” with “A”

as most pedestrian friendly and “F” as least pedestrian friendly (Table 13). These categories reflect pedestrians’ perception of comfort and safety.

Table 13: Pedestrian Level-of-Service Categories

Level of Service	Pedestrian LOS Score
A	≤ 1.5
B	> 1.5 and ≤ 2.5
C	> 2.5 and ≤ 3.5
D	> 3.5 and ≤ 4.5
E	> 4.5 and ≤ 5.5
F	> 5.5

The Pedestrian LOS Model is used by planners and engineers throughout the United States in a variety of planning and design applications. Along with additional criteria (e.g., public input, cost effectiveness, ADA accessibility, pedestrian collisions and adjacent land uses), the Pedestrian LOS model was used to identify and prioritize sidewalk improvement projects.

Pedestrian Level-of-Service Results

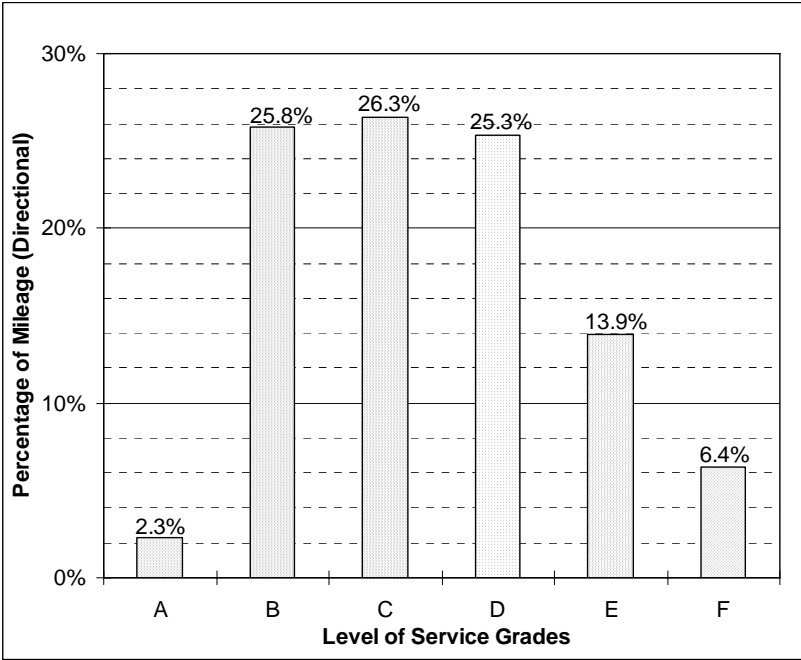
The survey team surveyed almost 12,000 directional roadway segments, which total 1,351 miles. “Directional roadway segments” refers to surveyor evaluation of both sides (directions) of a street for sidewalk and buffer information.

The overall Pedestrian LOS average score is 3.42, which is a service category “C.” Table 14 and Figures 16-25 summarize LOS statistics for all roadway segments surveyed.

Table 14: Level of Service by Roadway Segment (miles)

LOS	Segments (miles)	Percent
A	31	2.3
B	349	25.8
C	356	26.3
D	342	25.3
E	188	13.9
F	86	6.4
Total	1,352	100

Figure 16: Level of Service by Mileage



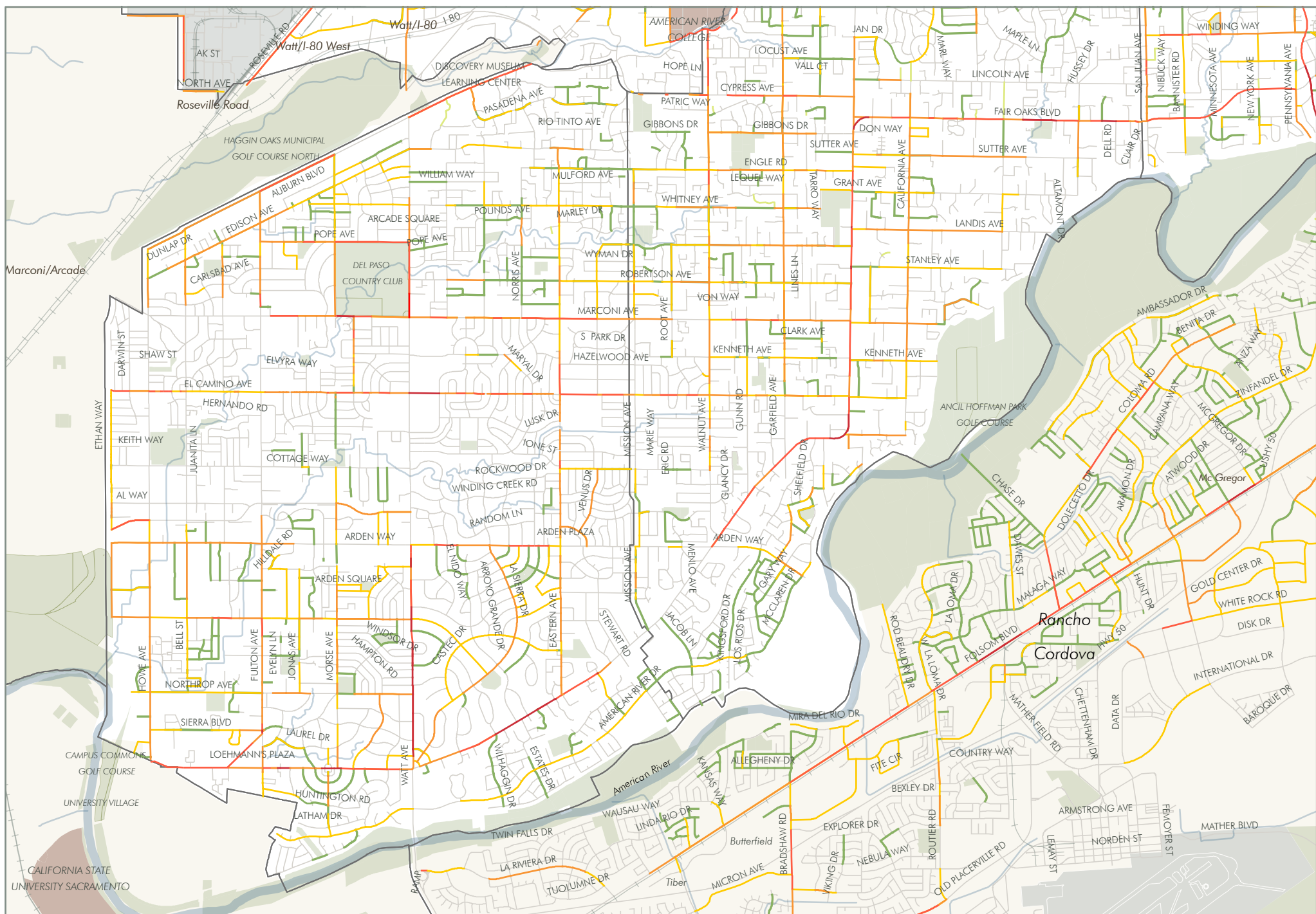
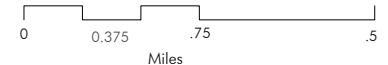


Fig. 17: Pedestrian LOS
Arden Arcade



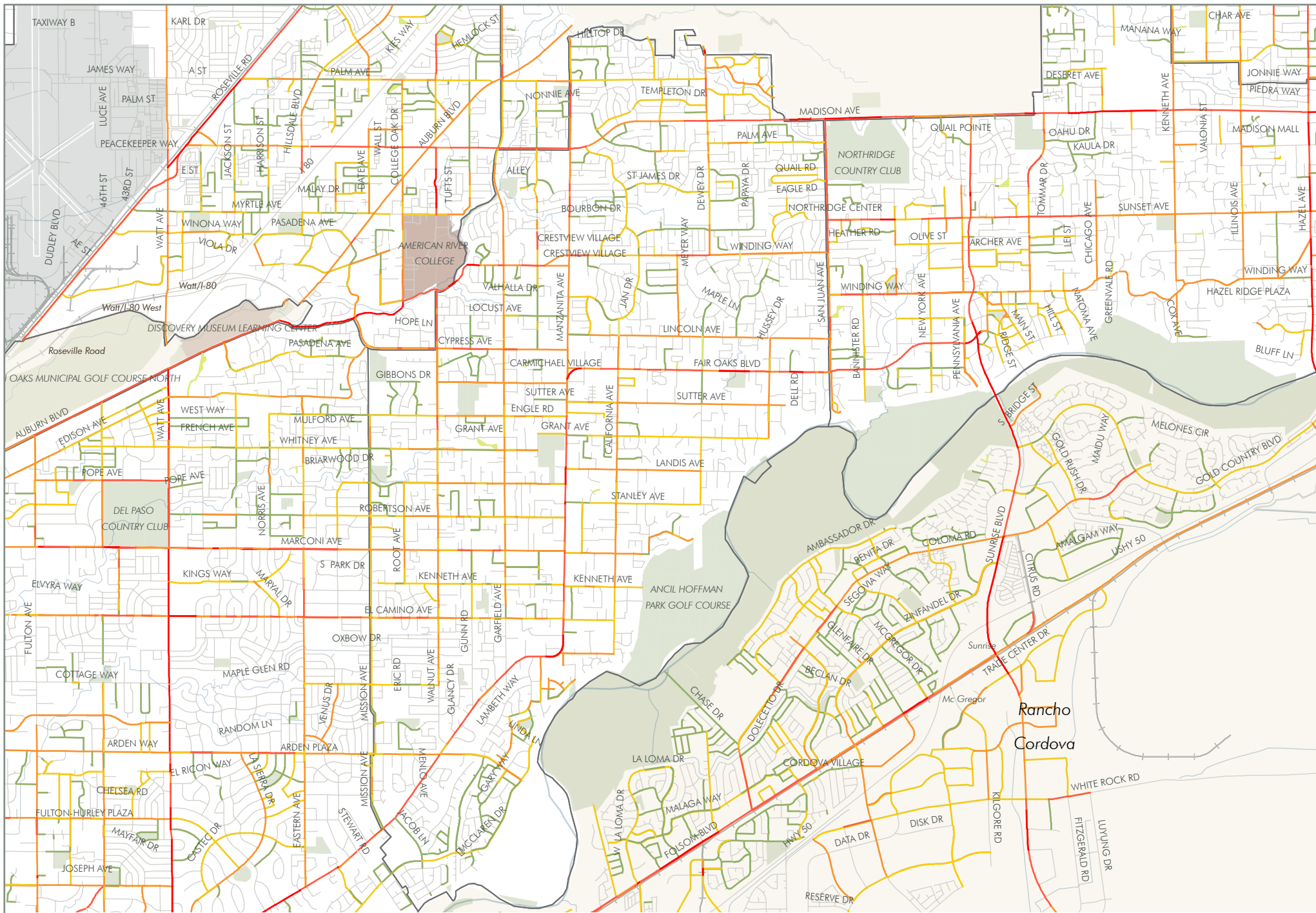


Fig. 18: Pedestrian LOS
Carmichael



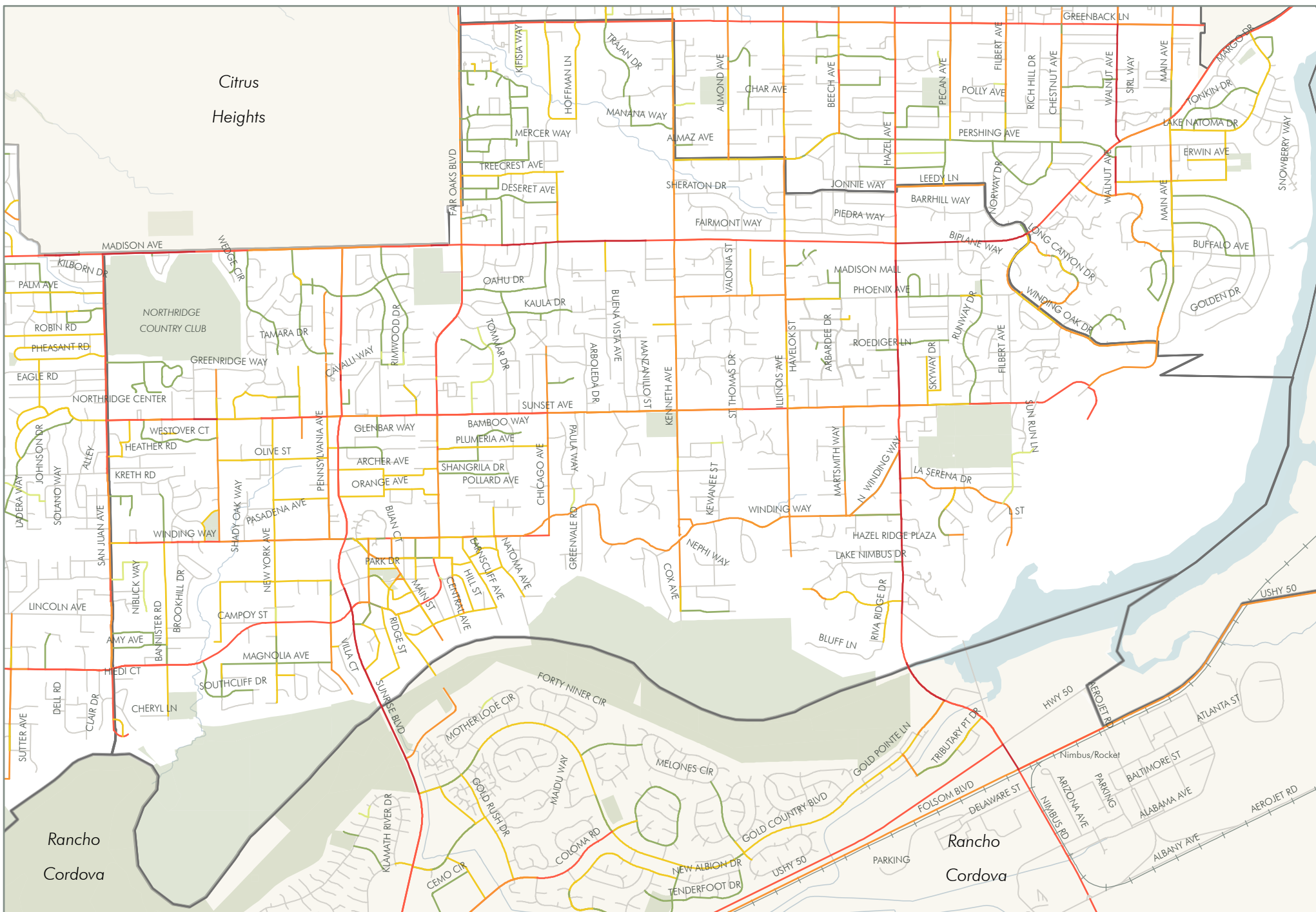


Fig. 20: Pedestrian LOS
Fair Oaks

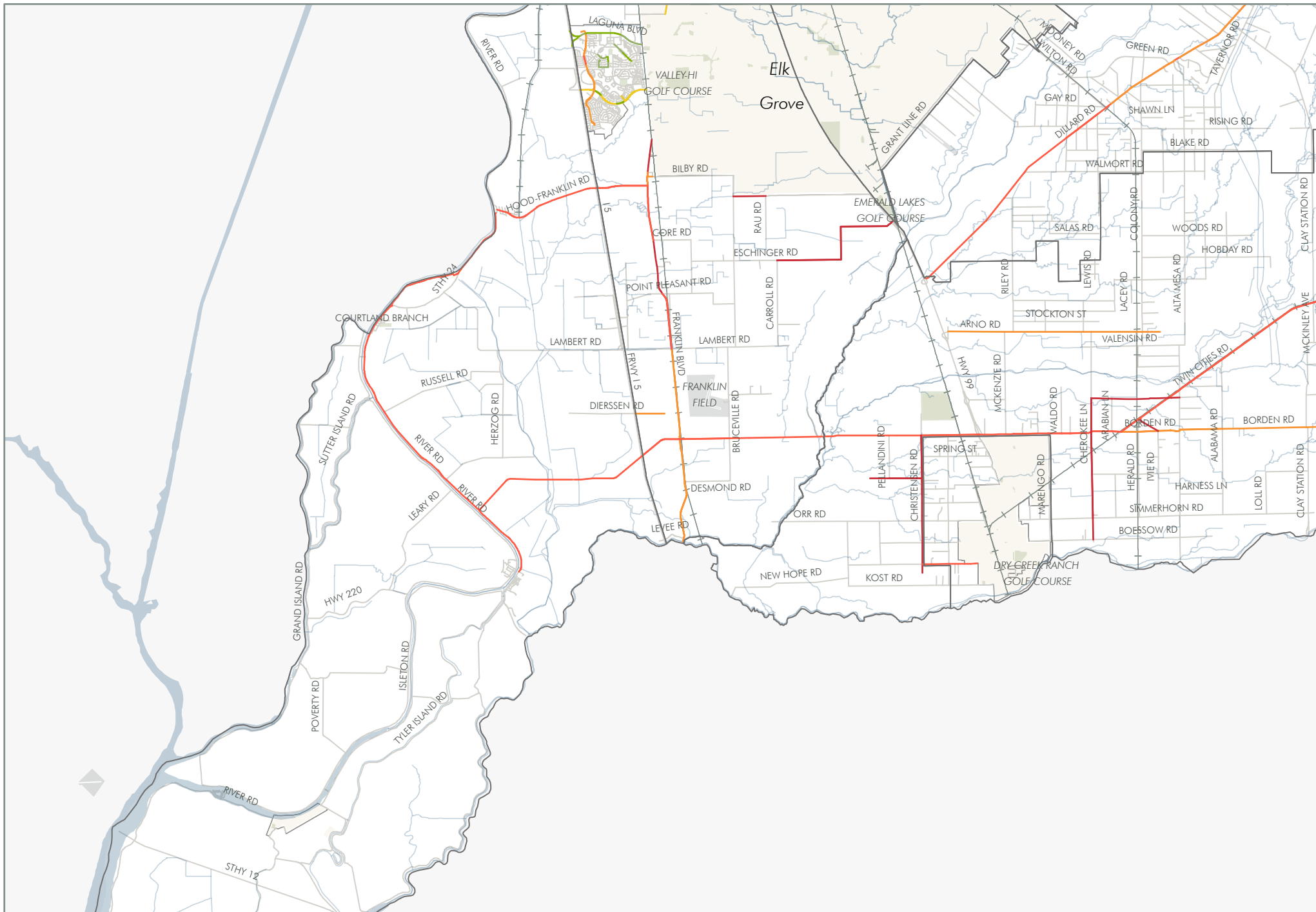
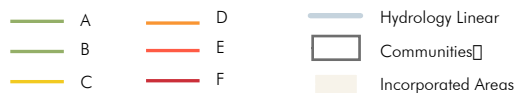


Fig. 21: Pedestrian LOS
Franklin Laguna | Delta



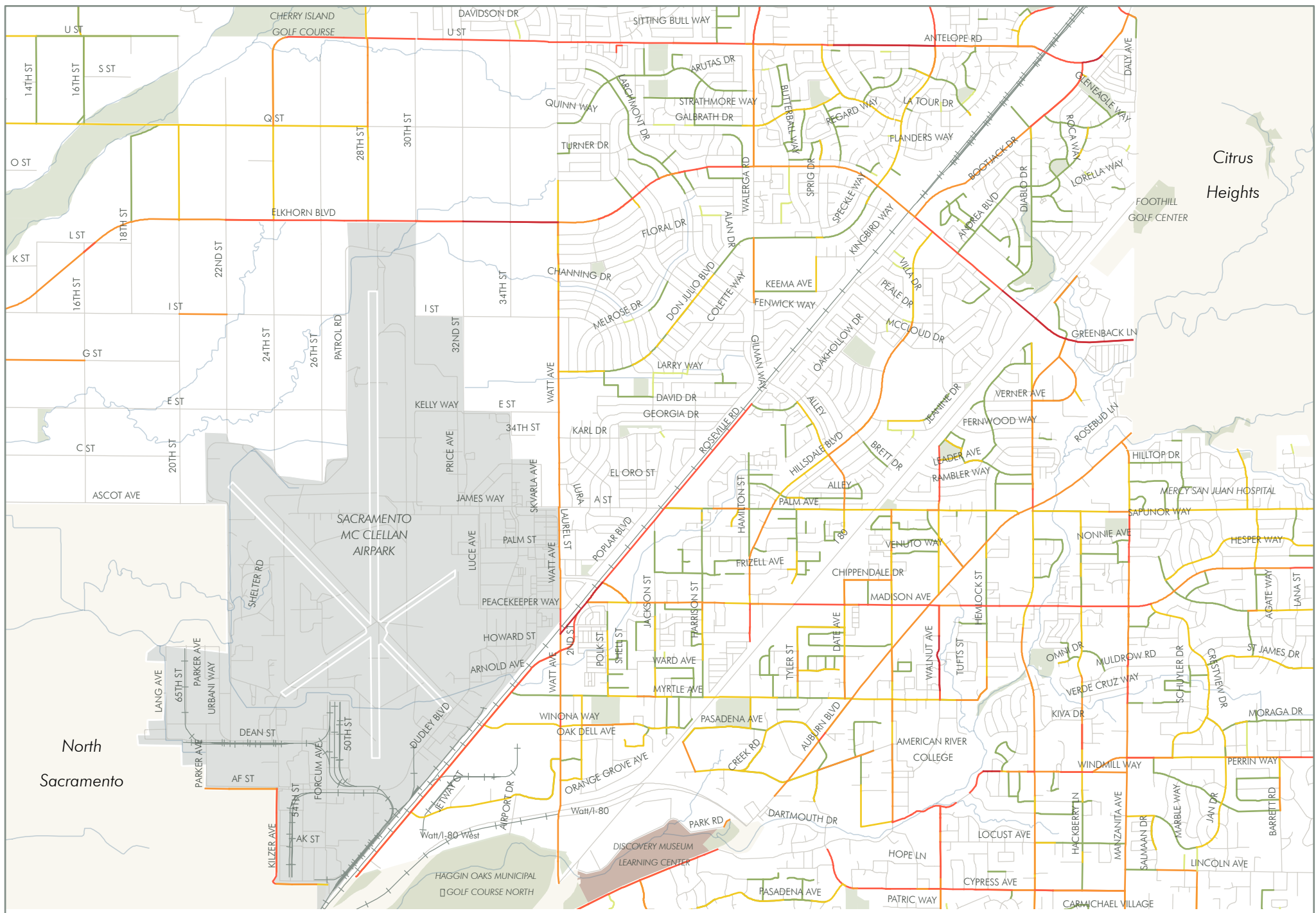
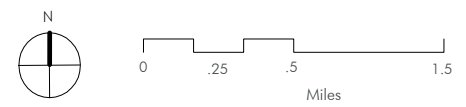


Fig. 22: Pedestrian LOS
North Highlands | Foothill Farms | Antelope

- | | | |
|---|--|---|
| — A | — D | — Hydrology Linear |
| — B | — E | Communities |
| — C | — F | Incorporated Areas |





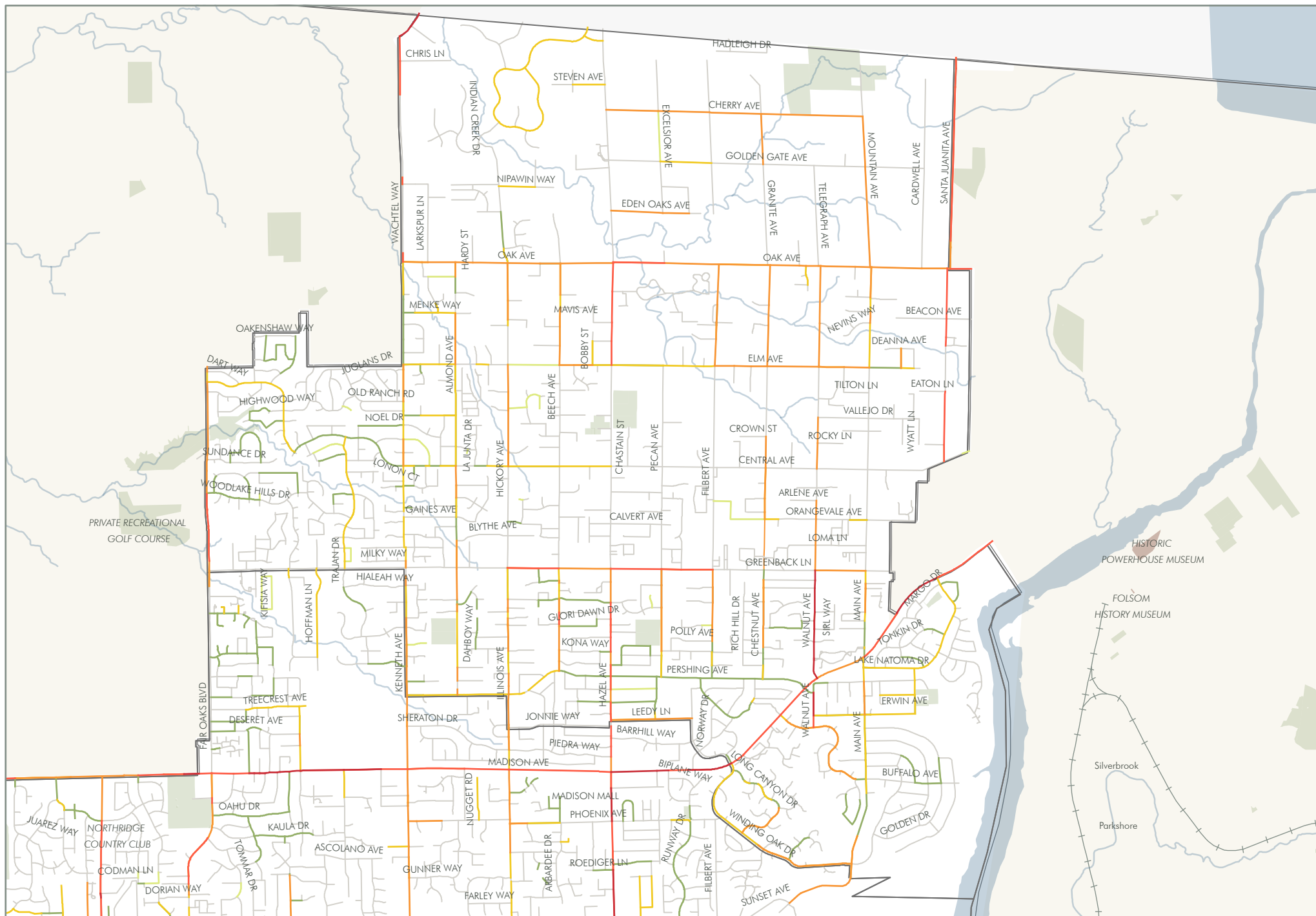
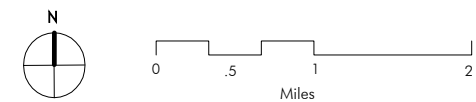
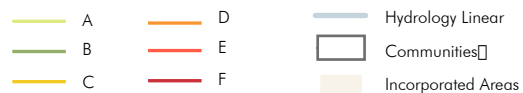


Fig. 24: Pedestrian LOS
Orangevale



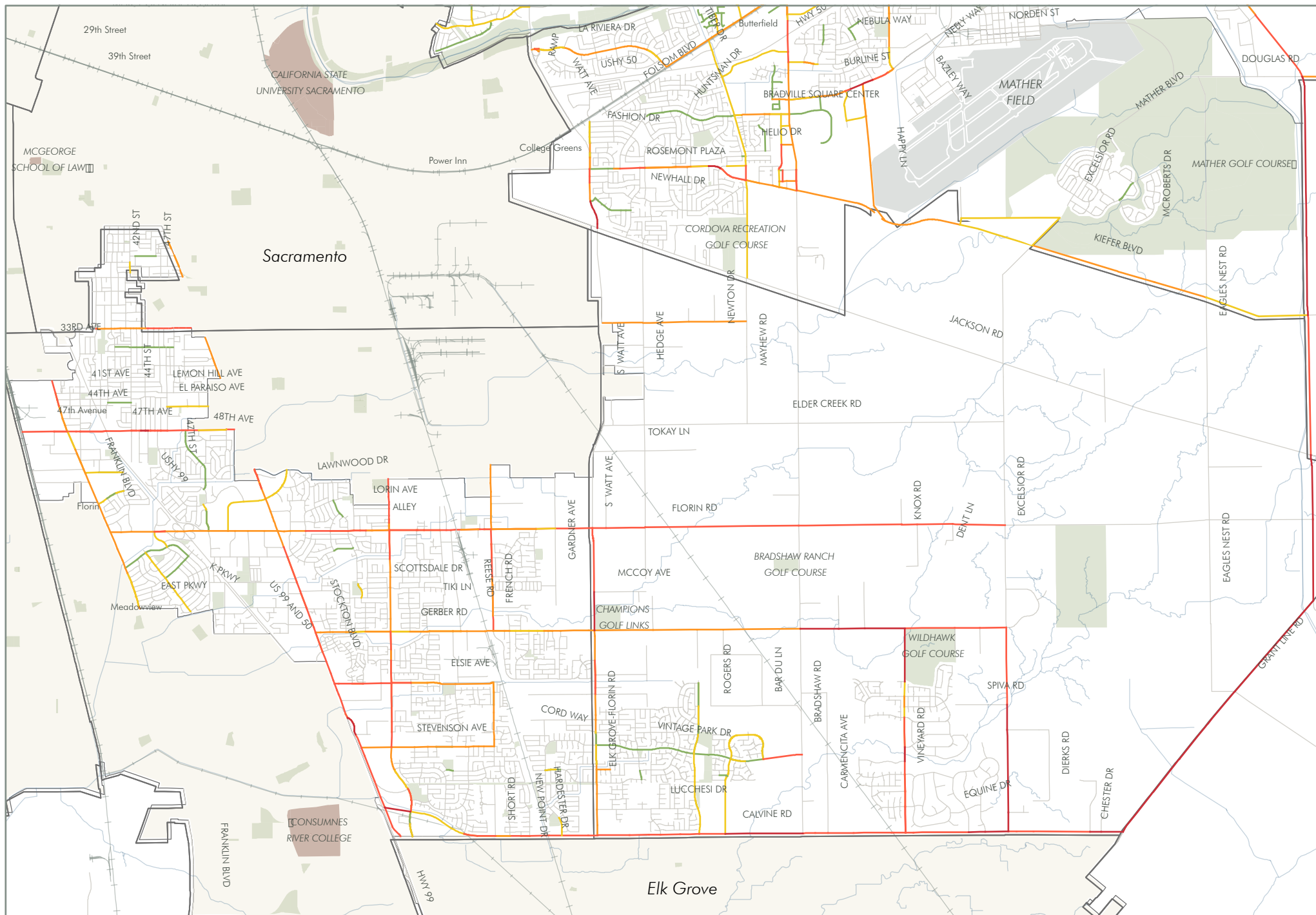
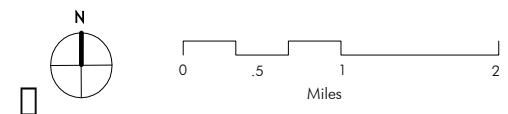


Fig. 25: Pedestrian LOS
South Sacramento | Vineyard



Community Input on Pedestrian Infrastructure

One of the primary methods used to obtain community feedback was the consumer survey. The study team developed and distributed it to identify “hotspot” locations or physical barriers to individuals with disabilities. The consumer survey also helped prioritize proposed pedestrian improvement projects.

Survey Distribution

The study team provided the survey on the project website, and distributed surveys to public library branches throughout the County and to individuals and organizations on the project mailing list. Paratransit, Inc. mailed out about 4,000 surveys to their consumers in unincorporated Sacramento County. *WalkSacramento* distributed the surveys to their members. For visually-impaired individuals, the survey was available in the following alternative formats:

- Audio tape
- Electronic text files
- Floppy disk
- Large print
- Phone
- Telephone reader service (Sacramento Access News)

Survey Process

The goal was to receive 100 completed surveys from pedestrians with disabilities and 200 completed surveys from non-disabled pedestrians. The study team collected and analyzed a total of 197 questionnaires. Out of these surveys, disabled individuals comprised 112 of 197 total respondents.

The survey asked for the following types of information:

- Disability type (optional)
- Reasons why respondent does not walk more
- Purpose for walking (i.e., work, social/recreational, etc.)
- Time spent walking for each purpose
- Major walking constraints in Sacramento County

Survey Results

Statistically valid results cannot be drawn from the survey results because the pedestrian respondents were not randomly selected. The following section outlines key observations on the respondents' profile, walking habits and constraints.

Respondent Profile

About 62 percent of the respondents were female, and women respondents walk for a longer amount of time compared to men respondents (Table 15). This finding supports the general trend that females walk more than males. It also may represent a tendency for females to respond to surveys or a bias in the survey distribution. The 1995 Nationwide Personal Transportation Survey (NPTS) shows that women are more likely to walk than men (6.2 percent versus 5.9 percent of their total trips).

Table 15: Average Walk Trip Time of Survey Respondents

	Personal / Family (min)	Social / Recreational (min)	School / Church / Civic (min)	Work (min)
Females	29	32	31	16
Males	17	29	11	17
Total	24	31	26	16

When compared to the general demographics for the unincorporated Sacramento County, survey respondents included a disproportionately high number of elderly and disabled persons. For example, 44 percent of the respondents were 60 years old or greater, and 57 percent of the respondents marked the optional question of disabled. Thus, the survey data may reflect the concerns of these demographics more than others. For example, research shows that older persons are more concerned about negotiating through intersections than younger travelers.⁸ Furthermore, only 52 percent of the respondents own a car or truck.

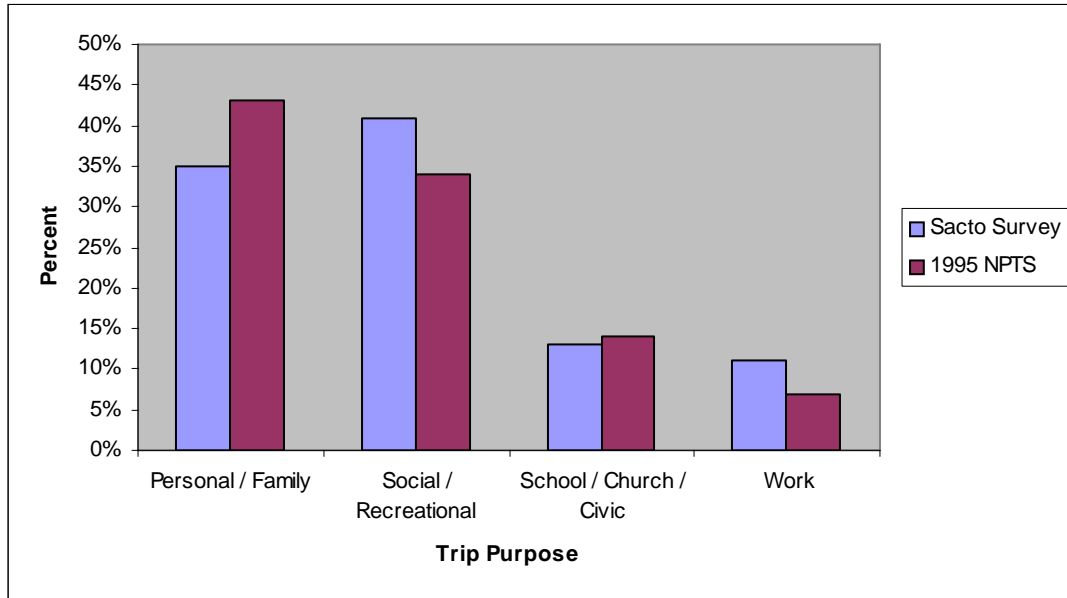
Trip Purpose

The 1995 NPTS survey results help validate the Sacramento County survey findings (Figure 26). The below figure shows

⁸ Hauer, E. (1988) The safety of older persons at intersections. In *Transportation in an Aging Society, Vol. 2. Improving Mobility and Safety for Older Persons*. TRB, NRC.

that pedestrians are more apt to walk for personal or family business and for social or recreational purposes than for school, civic, church or work. The proportion of all trips associated with personal or family travel is 35 percent for the Sacramento County survey respondents and 43 percent for the 1995 NPTS respondents. The proportion of total trips taken for social or recreational purposes is 41 percent for the Sacramento County respondents and 34 percent for the NPTS respondents. The proportion of total trips taken for social or recreational purposes is 41 percent for the Sacramento County respondents and 34 percent for the NPTS respondents.

Figure 26: Trip Purposes of Sacramento and NPTS Survey Respondents



Walking Constraints

The study team posed two questions to investigate area walking constraints. The first question focused on what prevented respondents from walking more frequently. The second question focused on identifying the type and location of walking constraints.

Table 16 shows the percentage responses to the survey's nine reasons for not walking more often. Respondents ranked a "lack of sidewalks" (18 percent) and "street crossings" (14 percent) as the greatest reason for not walking more often. The lowest ranked reasons include "walking is too hard" (18 percent) and "scenic quality of the trip" (16 percent). More specific issues cited in the survey included sidewalk gaps, broken sidewalks, speeding, short signal timings, wide streets, inadequately marked crosswalks and the lack of bus service, lighting, equestrian access, audible pedestrian signals, curb ramps and trails.

Table 16: Reasons Given for Not Walking More

	Highest (ranked 1-3)	Lowest (ranked 7-9)
Sidewalks	18%	6%
Crossings	14%	7%
Afraid Auto	11%	11%
Too Far	11%	9%
Too Hard	10%	18%
Weather/Darkness	9%	8%
Security	9%	12%
Time	9%	12%
Other Rank	5%	2%
Scenery	4%	16%

As the population ages, the reasons for not walking may increase. Physical constraints of walking such as difficulty (“too hard”) become a more serious issue. Respondents 65 years or older marked “too hard” as their highest concern along with “sidewalks” (16 percent each) whereas only ten percent of overall respondents marked “too hard” as their highest ranked concerns. Respondents 50 years or older reported relatively greater instances of disability (80 percent, compared to 57 percent overall), limited mobility (50 percent compared to 37 percent) and visual impairments (20 percent compared to 14 percent).

Existing Plans and Programs

The PMP is one of many County documents that influence the pedestrian environment. Other plans programs previously adopted by the County Board of Supervisors impact pedestrian facilities, adjacent land uses, maintenance as well as educational and enforcement programs. This section explains the myriad of pedestrian-related activities that are occurring at the County.

SacDOT Planning Efforts

SacDOT is responsible for implementing roadway projects to improve safety and access for all modes, and has a full-time coordinator for bicycle and pedestrian issues who ensures that bicycle and pedestrian facilities are properly integrated into the County's roadway projects and programs. SacDOT also relies on its Bicycle Advisory Committee and on the County's Physical Access Subcommittee of the Disabled Advisory Committee. Community members serve as representatives in these two groups.

Pedestrian Design Guidelines

The Pedestrian Design Guidelines is a second document that was prepared as part of the PMP development. The Board of Supervisors adopted the Pedestrian Design Guidelines in November 2005. The Pedestrian Design Guidelines addresses design standards for the public right-of-way to improve the County's pedestrian facilities. The new standards help ensure accessibility for all pedestrians including individuals with physical disabilities. The design guidelines were developed with the assistance of the technical and community advisory groups and with input from the general public. To ensure implementation, SacDOT will incorporate the guidelines into the Roadway Improvement Standards.

ADA Transition Plan

The ADA Transition Plan, which the Board of Supervisors adopted in January 2005, addresses improvement needs relating to disabled access within the public rights-of-way. The ADA Transition Plan and the Pedestrian Master Plan were undertaken on a parallel schedule, but had separate adoption processes and community advisory committees. The ADA Transition Plan identified and prioritized disabled access

projects, established disabled access codes and standards, estimated project costs, highlighted an implementation schedule and funding strategy, and developed grievance and monitoring programs. The ADA Act of 1990 and subsequent interpretations by the Department of Justice require municipalities to prepare an ADA Transition Plan, which details how they will make their streets and roads accessible to disabled individuals. In addition, the plan addressed California Title 24 requirements and pre-existing Sacramento County Board of Supervisors policies.

Bikeway Master Plan

SacDOT developed and adopted the 2010 Bikeway Master Plan to encourage bicyclist travel for recreation and transportation needs. The plan calls for a total of 110 miles of off-street facilities and 790 miles of on-street bike lanes to be implemented by 2010. Pedestrians benefit from these facilities in the following ways:

- Use of off-street trails
- Use of bike lanes or bike route shoulders as walkways where there are no sidewalks
- Additional lateral separation where bike lanes exist so that pedestrians are further separated from motor vehicles

The Pedestrian Demand section below lists multi-use paths within unincorporated Sacramento County.

Transportation Improvement Plan

The Transportation Improvement Plan is SacDOT's capital improvement program that includes corridor improvement projects throughout the unincorporated County (Table 17). All of these projects involve pedestrian facilities, which usually amount to about 15 to 20 percent of the overall roadway project budget. The projects that are discussed in this section are scheduled to be completed by 2012, and are taken from SacDOT's Seven Year Transportation Improvement Plan 2005-2012. The designs must follow the current federal, state and local accessibility standards, and should strive to meet the County's pedestrian design guidelines.

Table 17: Roadway Projects with Pedestrian Components

Project	Expected Comple- tion Year	Prelim. Study, Design & Environ.	Comments
<i>Corridor Enhancements</i>			
Auburn Blvd (Howe Ave and Watt Ave)	2008-09	2006-07	Pedestrian facilities
Countywide Street Beautification	On-going: Starts 2006		
Florin Rd, Stockton Blvd to Elk Grove-Florin Rd	2006-07	2003-06	Sidewalks, ADA compliance
Franklin Blvd. (Turnbridge to City line; 47 th Ave – west of Franklin Blvd)	2006-07	2003-05	Pedestrian improvements
Freedom Park Drive, 32 nd to Watt	2006-07	2005-06	Pedestrian plaza and lighting, sidewalks
Fulton Ave Enhancements (Arden Way and Auburn Blvd)	2006	2004	Pedestr lighting, undergrounding utilities
Gerber-Power Inn, Elsie Median Landscaping (Power Inn Rd: Lenhart Rd and Elsie Ave; Elsie Ave: Power Inn Rd and Shellbrook Ct; Gerber Rd: Power Inn Rd and Elk Grove-Florin Rd)	2007-09	2004-06	Accessibility, raised medians, traffic circulation, right-of-way
North Watt Ave (Don Julio to Polar Blvd)	2005-06	2003-04	Sidewalks
Waterman Rd Landscaping (Calvine Rd to Vintage Park Dr)	2006-07	2005-06	Landscaped median
<i>Multi-Purpose Corridor Improvements</i>			
Elkhorn Blvd, Watt Ave to Don Julio	2007-09	2003-06	
Fair Oaks Ave, Marconi Ave to Engle Rd	2007	2006	
Hazel Ave, Madison Ave to U.S. 50	2006	2000-05	
Madison Ave, Hazel Ave to Greenback Ln	2010/2011	2008-10	Pedestrian facilities
U.S. 50 @ Watt Ave Interchange	2008-2011	2002-08	Pedestrian facilities
<i>Major Roadway and Intersection Improvements</i>			
Bradshaw Rd, Calvin Rd to Florin Rd	2007-2008	2003-06	Shoulders
Bradshaw Rd, Florin Rd to Morrison Crk	2005-2006	2000-04	Pedestrian facilities
Calvine Rd, 1,000 e/o Kingsbridge Dr to Vineyard Rd	2006	2003-05	Eight foot path north side of road
Elverta Rd, Rio Linda Blvd to Dutch Haven Blvd	2008-2010	2007-08	Pedestrian facilities
Folsom Blvd, Sunrise Blvd to Aerojet Rd	2005-06	2003-05	Five foot shoulders
Gerber Rd, Elk Grove-Florin Rd to Bradshaw Rd	2007-08	2005-07	Pedestrian facilities
I-5 @ Metro Air Parkway Interchange	2006-08	2003-06	
MacReady Ave (Old Placerville – Bleckley)	2006-07	2005-06	
North Kiefer Blvd (closure at Kiefer)	2006-07	2005-06	Pedestrian connections
S. Watt Ave, Florin Rd to SR 16	2007-08	2006-07	Pedestrian facilities
S. Watt Ave, SR 16 to Kiefer Blvd	2007-08	2003-06	Pedestrian facilities
Watt Ave @ Folsom Blvd LRT Grade	2006-07	2003-05	Pedestrian facilities
Zinfandel Dr	2008-10	2006-07	Pedestrian facilities

Planning and Community Development Department's Planning Efforts

The General Plan is the broad policy document that affects the entire unincorporated County. The Community Plan updates and the specific plans affect only targeted subareas.

General Plan

The General Plan guides the development process, and acts as an advisory tool for future development. The County's Planning and Community Development Department developed the Circulation Element of the Sacramento County General Plan in 1993 and updated it in 1997. A new effort to update the General Plan, led by the Planning Department, will be completed in 2006. This update also will involve revisions to the General Plan's Circulation Element.

The updated General Plan focuses on several smart growth strategies that will make walking easier and safer in the County. By designating an urban policy area, the plan aims to concentrate development inside the urban core area. To help promote infill development, the County recommends revitalizing key commercial corridors to address economic development, commercial development, housing and infrastructure improvements. The key commercial corridors that were part of the General Plan will need future master planning efforts, which will involve public outreach and staff coordination. To assist in achieving the goals of the General Plan, the Pedestrian District boundaries detailed herein are the same as the Planning and Community Development Department's Commercial Corridors, in targeted areas.

Community Plan Updates

Community plans are policy documents that are more detailed than the General Plan. The main objective of these community plans is to better meet the unique needs of each area within the unincorporated County. These plans provide a more comprehensive guide for physical development than the General Plan. Some areas with community plan updates may have more stringent standards than areas of the County without such plans. The Board of Supervisors voted in 1999 to update the community plans. Table 18 shows the status of these plan updates.

Table 18: Community Plans

Community Plan	Last Adopted
Antelope	1985
Arden Arcade	2005
Carmichael	2005
Citrus Heights	1978
Delta	1983
Elk Grove	1978
Fair Oaks	1975
Laguna	1978
North Highlands / Foothill Farms	1974
Orangevale	1976
Rio Linda / Elverta	1998
Southeast	1976
South Sacramento	1978
Vineyard	1985

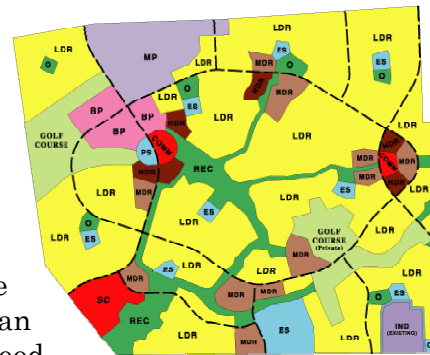
Specific Plans

The Planning Department develops specific plans for new growth areas. Specific plans are similar to zoning ordinances, and are combined with unique conditions and financing in one comprehensive package. These plans meet and typically go beyond the County's minimum standards. The specific plans that are adopted and under preparation by the County address:

- East Antelope (next to the Placer County line, Cook Riolo Road and the Southern Pacific Railroad corridor)
- Elverta (northern County line next to the Gibson Ranch County Park)
- Mather (south of SR 50, formerly Mather Air Force Base)
- North Vineyard Station (Florin Road, Gerber Road, Elder Creek and Vineyard Road extension)
- Sunrise Douglas / Sunridge Specific Plan (east of Sunrise Blvd and the Mather area and south of Douglas Blvd)
- Sunrise Douglas 2 (Sunrise Blvd, Grant Line Rd and Kiefer Rd.)

Special Projects

Special projects are similar to specific area plans; both are comprehensive plans for subareas. Special projects are initiated to process private development applications that are unique or controversial. Pedestrian facilities must meet, and may exceed, the County's minimum standards. The following three special projects have been developed:



Rio Del Oro Project

- **Vineyard Springs area** (Gerber Road, Calvine Road, Excelsior Road and Bradshaw Road)
- **Rio del Oro (Aerojet)** (White Rock Road, Sunrise Blvd, Douglas Road and Sunrise Douglas Specific Plan area – see inset)
- **Florin-Vineyard “Gap”** (Elder Creek Road, Union Pacific Railroad tracks and Elk Grove-Florin Road)

Current Pedestrian Education and Enforcement Programs

Educational and enforcement programs that address pedestrian issues are mainly sponsored by SacDOT, the Sacramento County Sheriff's Department and WalkSacramento. The main programs are described below.

Adult School Crossing Guard Program

SacDOT assigns adult school crossing guards at locations near schools where there is a need for supervision to avoid potential pedestrian/motor vehicle collisions. Uncontrolled, stop sign controlled and traffic signal controlled street crossings are all eligible for this program. The program costs about \$10,000 per year for each adult crossing guard, and employs about 20 crossing guards.

Care about Neighborhoods (CAN) Program

SacDOT sponsors four different traffic safety programs called Care about Neighborhoods (CAN) programs. These CAN programs target specific community areas, and are as follows:

- The Care about Neighborhoods Goes to School (CAN GTS) Program educates children in grades one through four on pedestrian and bicyclist safety. This program focuses on the Four E's: Engineering, Education, Encouragement and Enforcement.
- The Neighborhood Speed Awareness Program (NSAP) focuses on safety awareness. The NSAP program uses radar trailers and message signboards to educate drivers of their speed thereby encouraging voluntary compliance.
- The Neighborhood Speed Watch Program (NSWP) gives warnings to owners of speeding vehicles as observed by residents.
- The Neighborhood Speed Control Program (NSCP) uses engineering devices such as speed humps and stop signs to reduce instances of speeding.⁹

Neighborhood Traffic Management Program

In 2005, SacDOT developed a traffic-calming project called the Neighborhood Traffic Management Program. The Draft Neighborhood Traffic Management Program (NTMP) Manual presents the processes and traffic management devices available to SacDOT and County residents when treating neighborhood traffic concerns. The Draft NTMP Manual also includes street design guidelines to minimize the need for neighborhood traffic management in future neighborhoods. Extensive community outreach was used to develop both the program and the guidebook. SacDOT is working a Technical Advisory committee (TAC) and a Citizens Advisory Committee (CAC).

Sacramento County Sheriff's Department

The Sheriff's Department issues tips on Back to School Child Safety, and has a coloring book that emphasizes the need to obey traffic safety rules. The Community Oriented Policing Strategy (COPS) Division has an officer who is affiliated with

⁹ http://www.sacdot.com/services/CAN_Programs.asp

each local school. This officer makes presentations on pedestrian and bicyclist safety as part of his/her duties to ensure a good quality of life, and enforces traffic rules at the affiliated schools.

WalkSacramento

WalkSacramento sponsors a variety of ongoing pedestrian-related programs and events. Event examples include midday speakers, pedestrian summits and audits and neighborhood walks. This local non-profit received a \$33,000 grant from the Robert Wood Johnson Foundation through the State Department of Health Services / University of California at San Francisco (UCSF) for a Walkable Neighborhoods for Seniors Program in Sacramento. The program works with the Sacramento County Department of Health, the City of Sacramento's 50+ Wellness Program and other community organizations to improve the neighborhood walking environment for seniors and to encourage more seniors to walk.

Challenges to Creating a Pedestrian-friendly Environment

The Existing Conditions section helps SacDOT better understand the challenges that must be overcome to create a more pedestrian-friendly community. These challenges are summarized as follows:

- Lack of pedestrian crossing facilities such as curb ramps, crosswalks and properly timed signals.
- Lack of walkways such as sidewalks, multi-purpose shoulders and multi-use paths.
- Obstructed walkways from utility poles and street furniture.
- Lack of funds to construct and improve pedestrian crossing facilities and walkways.
- Segregated land uses such as residential areas that are not near neighborhood shops.
- Automobile-oriented urban design with parking lots in front of key destinations.
- Meeting the needs of all travel modes – bicycling, walking, public transit, auto and truck.
- Inadequate public right-of-way for proposed sidewalks.
- Pedestrian security and safety concerns.
- Weather and darkness that deter pedestrians from walking.

Pedestrian Goals, Policies and Action Items

The section recommends local pedestrian goals, policies and action items, describes other pedestrian-related policies in the County and shows pedestrian-related state and federal policies. The most important pedestrian-related policies are in the General Plan, the Caltrans non-motorized travel directive, and the United States Department of Transportation (US DOT) Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure. These policies provide evidence to the changing philosophical climate pertaining to travel in the United States. It is now widely recognized that walking has health, environmental, economic and quality of life benefits.

Pedestrian Master Plan Goals, Policies and Action Items

Pedestrian goals, policies and action items for Sacramento County's Pedestrian Master Plan serve as the action plan for implementing the Pedestrian Master Plan. To ensure the needs of pedestrians are fully considered, the County should begin by adopting the Caltrans Deputy Directive and include pedestrian policies in the circulation element of the General Plan.

Recommended goals, policies and action items represent a set of principles that should be incorporated, to some extent, into every pedestrian environment and roadway project. Some of these principles go beyond the responsibility of the Department of Transportation, and require coordination with the Planning Department, Sheriff's Department, development community and landowners in Sacramento County as shown below.

Overall Goal

The overall goal is to:

Implement the Pedestrian Master Plan to improve pedestrian safety and access in the unincorporated areas of Sacramento County.

Policy 1 - Pedestrian Safety

Create a safe street environment for pedestrians.

Actions

To accomplish this directive, the plan recommends the following actions:

- 1.1: Consider the full range of design elements to improve pedestrian safety.
- 1.2: Update the Roadway Improvement Standards based on the Pedestrian Design Guidelines recommendations.
- 1.3: Construct sidewalks with appropriate widths near schools and on busy streets to accommodate pedestrians.
- 1.4: Use state-of-the-art technologies such as pedestrian countdown signals and video detectors where appropriate.
- 1.5: Construct bikeways to keep bicycles off sidewalks to minimize pedestrian/bicycle collisions.
- 1.6: Analyze pedestrian-motor vehicle collisions to reduce the incidences of pedestrian/motor vehicle conflicts.
- 1.7: Develop and implement a pedestrian hazard elimination program that is based on resident requests.
- 1.8: Develop and enforce a sidewalk maintenance program to ensure that adjacent property owners properly maintain the sidewalks.
- 1.9: Work with the Sheriff's Department to continue the Care about Neighborhoods (CAN) programs that focus on traffic safety in targeted community areas.
- 1.10: Improve street lighting in neighborhoods.
- 1.11: Work with the Planning Department to encourage architectural designs that create an "eyes on the streets" feel.
- 1.12: Fund the Neighborhood Traffic Management Program to develop traffic calming measures.
- 1.13: Work with the School Districts to identify safe routes to schools, and to prioritize pedestrian projects on the identified routes.

Policy 2 - Disabled Access

Develop, build and maintain a pedestrian network that is accessible to all.

Actions

To accomplish this directive, the plan recommends the following action:

- 2.1: Implement the Sacramento County ADA Transition Plan. Refer to the ADA Transition Plan for more details.

Policy 3 - Pedestrian Access

Develop, build and maintain a convenient and well-connected pedestrian network that offers a viable alternative to the use of automobiles.

Actions

To accomplish this directive, the plan recommends the following actions:

- 3.1: Include pedestrian (and bicycle) counts when conducting turning movements to ensure that all travel modes are considered when retrofitting intersections and roadways.
- 3.2: Develop procedures for analyzing the pedestrian (and bicycle) circulation systems in transportation impact studies.
- 3.3: Form a Sacramento County Pedestrian Advisory Committee as in the cities of Seattle and Cambridge. The goal of the committee is to raise awareness about pedestrian needs. Community members would be appointed to the committee, and a County staff liaison would help coordinate it.
- 3.4: Coordinate with the School Districts, the Park and Recreation Districts and the Sacramento Regional Transit District to ensure that continuous pedestrian facilities exist.
- 3.5: Work with *WalkSacramento's* Walkable Neighborhoods for Seniors program to ensure that older residents' needs are being met.

- 3.6: Track the Pedestrian Level of Service (LOS) as pedestrian improvement projects are completed to help show progress.
- 3.7: Report Pedestrian Master Plan implementation progress, including Pedestrian LOS improvements, in the annual update of the Seven Year Transportation Improvement Plan.

Policy 4 - Streetscaping and Land Use

Create a comfortable and aesthetically interesting street environment for pedestrians.

Actions

To accomplish this directive, the plan recommends the following actions:

- 4.1: Work with the Planning Department to reduce building and driveway setbacks, and to locate parking on the side or in the rear of developments.
- 4.2: Work with the Sacramento Tree Foundation to provide street trees.
- 4.3: Prioritize pedestrian amenities to areas near transit stops and key land uses such as schools, parks, high-density housing and commercial. Pedestrian Districts also should receive high priority status for future amenities.
- 4.4: Incorporate public art, landscaping, resting benches and signage into the pedestrian route network.
- 4.5: Continue graffiti abatement and trash reduction programs.
- 4.6: Consider context sensitive designs at the early stage of all project developments.
- 4.7: Widen sidewalks in neighborhood commercial Pedestrian Districts to encourage sidewalk activities.
- 4.8: Coordinate with the Planning Department to create pedestrian improvements in the commercial corridor study areas.
- 4.9: Develop a pedestrian design checklist that the Community Planning Advisory Councils would use when reviewing and approving site design projects to ensure that they address pedestrian needs.

Policy 5 - Cost Effectiveness

Pursue cost effective means to construct and improve pedestrian facilities.

Actions

To accomplish this directive, the plan recommends the following actions:

- 5.1: Create assessment districts to help finance sidewalk improvements.
- 5.2: Construct sidewalk improvements using economy of scale to reduce mobilization costs.
- 5.3: Incorporate pedestrian facilities and amenities as a component of larger corridor projects.
- 5.4: Track the miles of sidewalks as is done for other SacDOT maintained infrastructure.

Policy 6 - Education

Promote walking as a convenient and healthy travel alternative and increase public awareness on pedestrians' rules-of-the-road.

Actions

To accomplish this directive, the plan recommends the following actions:

- 6.1: Fund the SacDOT staff training program on the Pedestrian Design Guidelines and the ADA Standards and Codes.
- 6.2: Implement a Pedestrian Marketing Program.

Related Pedestrian Policies

Sacramento County General Plan

Sacramento County's General Plan contains an overall pedestrian objective, which states that the County should encourage "Communities, neighborhoods, and single projects that promote pedestrian circulation and safety through amenities, good design, and a mix of different land uses in close proximity."

Pedestrian policies and action measures are provided in the Land Use Element under both the "Planning" and "Project Implementation" sections.

Planning

Community plans, specific plans and development projects shall be designed to promote pedestrian movement through direct, safe and pleasant routes that connect destinations inside and outside the plan or project area. (LU-13)

Action Measures

- A. Modify the zoning code and development standards to promote pedestrian access by providing for breaks in sound walls, walkways through parking lots, lighting and amenities, and pedestrian routes between projects and different land uses.
- B. Evaluate and condition development projects to provide pedestrian routes and amenities.
- C. Develop community and specific plans that provide a network of pedestrian routes that connect destinations within the plan area.

Project Implementation

Develop, adopt and implement a countywide Pedestrian Master Plan to improve the quality of the pedestrian environment by addressing pedestrian safety, disabled and pedestrian access, streetscaping, land use issues, and education. (LU-13 (a))

Action Measures

- A. Modify the zoning code and development standards to promote pedestrian access by providing for breaks in sound walls, walkways through parking lots, lighting and amenities, and pedestrian routes between projects and different land uses.
- B. Develop infrastructure financing fees, which accounts for the full width of roadway improvements in order to ensure that pedestrian routes are connected.
- C. Prepare and adopt a comprehensive Pedestrian Master Plan.

Caltrans State Policy Deputy Directive

Caltrans adopted a policy directive related to non-motorized travel that the City should follow by issuing a similar statement. The Caltrans Deputy Directive 64 reads:

“The Department fully considers the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products. This includes incorporation of the best available standards in all of the Department’s practices. The Department adopts the best practice concepts in the US DOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure.”

The definition and background section of the policy continues as follows:

“The planning and project development process seeks to provide the people of California with a degree of mobility that is in balance with other values. They must ensure that economic, social and environmental effects are fully considered along with technical issues, so that the best interest of the public is served. This includes all users of California’s facilities and roadways.

Attention must be given to many issues including, but not limited to, the following:

- Safe and efficient transportation for all users of the transportation system
- Provision of alternatives for non-motorized travel
- Support of the Americans with Disabilities Act (ADA)

- Attainment of community goals and objectives
- Transportation needs of low-mobility, disadvantaged groups
- Support of the State's economic development
- Elimination or minimization of adverse effects on the environment, natural resources, public services, aesthetic features and the community
- Realistic financial estimates
- Cost effectiveness

Individual projects are selected for construction on the basis of overall multimodal system benefits as well as community goals, plans and values. Decisions place emphasis on making different transportation modes work together safely and effectively. Implicit in these objectives is the need to accommodate non-motorized travelers as an important consideration in improving the transportation system.”

Assembly Concurrent Resolution No. 211 (ACR 211) by Assemblyman Nation, which became effective in August 2002, encourages local jurisdictions to implement the policies in DD-64 when constructing transportation projects.

Federal Policy Directive

The United States Department of Transportation (USDOT) policy statement was developed in response to TEA-21, the Transportation Equity Act for the 21st Century. It includes four directives:

1. Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
 - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.
 - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.

- Where sparsity of population or other factors indicate an absence of need.

2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders have safety and operational advantages for all road users in addition to providing a place for bicyclists and pedestrians.

3. Sidewalks, shared use paths, street crossings (including over- and undercrossings), pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways shall be designed, constructed, operated and maintained so that all pedestrians, including people with disabilities, can travel safely and independently.

4. The design and development of the transportation infrastructure shall improve conditions for bicycling and walking through the following additional steps:

- Plan projects for the long-term
- Address the need for bicyclists and pedestrians to cross corridors as well as travel along them
- Obtain exceptions at a senior level
- Design facilities to the best currently available standards and guidelines

Assembly Concurrent Resolution No. 211 (ACR 211) by Assemblyman Nation, which became effective in August 2002, encourages local jurisdictions to implement policies outlined in the USDOT transportation design guidance report when constructing transportation projects.

Implementation Plan

This section identifies those projects that will most improve pedestrian safety and access in unincorporated Sacramento County, and highlights the project selection process, as well as funding requirements and revenue options.

Project Selection Process

The selection of projects for inclusion in the ten-year CIP was completed in two phases. The first phase, described in detail below, relied upon seven technical criteria to discern capital priority projects from general pedestrian master plan projects.

The draft CIP generated as a result of this process was then presented to the public via public review. The second phase of project prioritization occurred as a result of this public review. Projects deemed to be of high priority by a large number of residents or by governmental agencies were advanced to the high priority list. Likewise, projects deemed unnecessary by the public or by governmental agencies were deleted from the list of master plan projects.

Upon adoption of this plan, the County will establish an additional process to prioritize CIP projects for funding, including grant applications and other funding sources.

Prioritization Criteria

The following prioritization criteria were used to make initial rankings of sidewalk and asphalt walkway projects. Input from the Technical Advisory Committee and Community Advisory Group guided the development of these criteria:

1. Walking conditions (using the Pedestrian LOS model)
2. Accessibility
3. Adjacent land uses (pedestrian demand)
4. Public input
5. Cost effectiveness
6. Pedestrian collisions
7. Geographic equity

The seven recommended project ranking criteria and the corresponding data collection and compilation methods are described below.

1) Walking Conditions (using the Pedestrian LOS Model)

The perception of pedestrian comfort and safety with respect to the roadside environment is the best way to measure walking conditions. The study team used the Pedestrian LOS model to evaluate each roadway segment for the walking condition criterion. The model demonstrates how walking suitability or “compatibility” changes according to roadway width, presence of sidewalks and intervening buffers, trees within those buffers, traffic volumes, motor vehicle speeds and on-street parking.

The Pedestrian LOS score resulting from the final equation was stratified into service categories “A, B, C, D, E and F” with “A” as the most pedestrian friendly roadway and “F” as the least pedestrian friendly (Table 19). The numeric Pedestrian LOS scores for roadway segments vary from 0.68 to 12.21, with the highest value being the worst score or least pedestrian friendly roadway segment.

Table 19: Pedestrian Level of Service Categories

Level of Service	Pedestrian LOS Score
A	≤ 1.5
B	> 1.5 and ≤ 2.5
C	> 2.5 and ≤ 3.5
D	> 3.5 and ≤ 4.5
E	> 4.5 and ≤ 5.5
F	> 5.5

2) Accessibility

At various locations throughout the County, sidewalks or asphalt walkways do not exist, making travel difficult for individuals with disabilities. Each roadway segment with partial or no sidewalks received points to move the segment higher on the priority list for potential funding. Roadway segments with a partial sidewalk received more points because these situations tend to be more ambiguous for individuals with disabilities. Asphalt walkways are considered accessible so roadway segments with these walkways were either ranked lower on the prioritization list or were dropped from it.

The accessibility scores are as follows:

- Partial sidewalk = 2
- No sidewalk = 1
- Sidewalk = 0

3) Adjacent Land Uses (Pedestrian Demand)

When projects are prioritized, one of the standard questions is “how often and how much would this facility be used?” Thus, a demand criterion compliments the walking conditions or “supply-side” criterion. When coupled, a balanced picture of travel demand and facility adequacy exists. For example, a particular road segment may have relatively poor walking conditions and relatively high walking activity potential. Thus, this segment would rank high on the priority needs list.

The study team surveyed only those roadway segments with adjacent land uses that generated high pedestrian demands. Roadway segments with a greater number of land uses accumulated more “land use” points for the pedestrian demand criterion. The targeted land uses included:

- County-owned facilities
- County parks
- Department of Motor Vehicles offices
- Public schools (approximately one-quarter mile radius for the main streets)
- Hospitals, health clinics and health centers (public and private)
- Housing complexes, including apartments
- Major employment sites
- Jails
- Public housing and homeless shelters, including senior facilities and rehabilitation facilities
- Law enforcement facilities
- Shopping malls, supermarkets and strip retail centers
- Transportation hubs (including bus lines, transit stations and truck routes for oversized trucks)

4) Public Input

To better reflect the public’s priorities for pedestrian improvements, the study team asked community members to provide their input. Consumer surveys, Community Planning Advisory Council (CPAC) meetings, Community Advisory

Group (CAG) meetings and public workshops were the primary sources for public input. Community members were asked to recommend roadways in need of sidewalks or other pedestrian improvements. Each public input request was considered as one “vote.”

5) Cost Effectiveness

Unit costs were developed and inserted into a “facility selection and cost decision” tree. Any project deemed not cost effective, such as projects requiring lengthy right-of-way purchases or negotiations, dropped down or off the project improvement list.

6) Pedestrian-involved Motor Vehicle Collisions

This criterion considers pedestrian-involved motor vehicle collisions as a way to address pedestrian safety issues. To create a collision cost for each location, the study team used a cost ranking process similar to one designed by the California Department of Motor Vehicles (DMV) as shown below:

Total collision cost based on the injury severity =
(The number of fatal collisions * \$962,440) +
(The number of injury collisions * \$210,934) +
(The number of property damage only collisions * \$3,397)

Roadway segments with higher collision costs were assigned more points than the ones with lower costs, as shown below:

- High collision cost = 3 (\$1 million or more)
- Medium collision cost = 2 (\$500,000 to \$999,999)
- Low collision cost = 1 (\$3,397 to \$499,999)
- No collision cost = 0

7) Geographic Equity

There are 14 community planning areas within unincorporated Sacramento County, ranging from rural to high density suburban subareas. To ensure geographic equity and to help track local improvements, pedestrian improvement projects were categorized by community planning areas. The initial project cutoffs for the short-term Pedestrian CIP were determined using population percentages for each community area (Table 20).

Table 20: Population by Community Area

Subarea	Population	Population %
Antelope	30,234	5%
Arden Arcade	95,966	17%
Carmichael	50,329	9%
Cosumnes	6,315	1%
Delta	5,845	1%
Fair Oaks	32,865	6%
Franklin Laguna	44,300	8%
North Highlands	74,638	13%
North Natomas	1,063	0%
Orangevale	29,505	5%
Rancho Murieta	3,960	1%
Rio Linda	19,670	4%
S. Sacramento	152,371	27%
Vineyard	11,051	2%
Total	558,112	100.0%*

Source: Sacramento Area Council of Governments,
Facts & Figures, January 2001.

* does not add up to 100% due to rounding

Project Criteria Weighting

The prioritization criteria were weighted, except for cost effectiveness and geographic equity, with the walking conditions criterion as being assigned the highest value (Table 21).

Table 21: Project Criteria Weighting

Criteria	Numeric Value	Weight	Score
Walking conditions	0.68 – 12	2	1 – 24
Accessibility	2 = partial sidewalk 1 = no sidewalk 0 = sidewalk	1	0 – 2
Adjacent land uses	1 point per land use type (7 points maximum)	1	0 – 7
Public input	1 point per public input “vote” (10 points maximum)	1	0 – 10
Cost effectiveness	NA	NA	NA
Pedestrian collisions	3 = high human capital cost 2 = medium human capital cost 1 = low human capital cost 0 = no human capital cost	1	0 – 3
Total	0.68 – 25		1 – 46

Walking conditions were considered the most important variable in determining whether the pedestrian system needs improvements at a particular location. The other variables augment the walking conditions criterion so they have a lower weighting. Cost effectiveness was used after the rankings were set. Projects were lowered in priority if they were deemed not cost effective.

Public Review and Comment

The Draft Pedestrian Master Plan was presented to the public for review in 2006. Based upon input from neighborhood groups and governmental agencies, both the draft CIP and the draft list of general pedestrian master plan projects were modified. Specifically, comments were received from the following parties:

- Individual residents
- Area planning agencies
- Area school districts
- Local community councils

The final CIP is presented in the following pages. The final list of general master plan projects (those remaining after the CIP is completed) is located in Appendix B.

Pedestrian Improvement Projects

Several types of improvement projects are recommended to ensure that the County meets a wide range of pedestrian needs. Recommended projects are grouped into the following categories:

- Sidewalks or Asphalt Walkways
- Safe Routes to School
- Safe Routes to Transit
- Sidewalk Obstruction Removals
- Midblock Crossings
- Pedestrian Countdown Signal Installations
- Signal Timing
- Lighting
- Trail Access
- Walkways
- Pedestrian Districts

The following section of the report describes each project category. All the potential projects for each category are listed. The highest-priority projects are listed in the Pedestrian CIP, which is the first ten years of the pedestrian program.

Sidewalks or Asphalt Walkways

Description: Concrete sidewalk or asphalt walkway projects are considered to be the most urgent ones for unincorporated Sacramento County. The lack of sidewalks or asphalt walkways creates safety issues, and sometimes prohibits disability access. Nevertheless, it is important to acknowledge that equity issues exist because residents and private developers have installed their own sidewalks in front of their properties without public sector monies. SacDOT will look into creative financing such as assessment districts to help ensure that the process is as fair as possible.

Concrete sidewalks are recommended for roadway segments with existing curbs and gutters and for those with adjacent high-priority land uses. High-priority land uses include health-related facilities, schools, commercial, office and County facilities. The cost analysis also assumes that curbs and gutters would need to be installed along with any sidewalk installation. Seven-foot separated sidewalks were assumed as

the base case. Three quarters of the sidewalk installations were assumed to require right-of-way purchases.

A lower cost alternative for rural areas is asphalt walkways. Asphalt walkways or widened shoulders extend the ground surface to provide space for both pedestrians and bicyclists to access transit stops or nearby destinations. Asphalt walkways were assumed to occur where open shoulders exist and where there are no significant land uses. One quarter of the asphalt walkway installations were assumed to require right-of-way purchases.

Table 22 shows the sidewalk or asphalt walkway projects that are recommended for funding in the Pedestrian CIP. The Technical Appendix shows the remaining roadway segments that could use concrete sidewalks or asphalt walkways. Note that the surveyors did not inventory all the roadway segments in the unincorporated County so other sidewalk or asphalt walkway installation needs exist that are not covered in these tables. Most of the roadway segments that were not surveyed are low volume streets in residential areas.

Sidewalk installation projects also are recommended in the Safe Routes to School and Trail Project sections below.

Order-of-Magnitude Cost: \$19,580,000 (CIP); \$270,551,000 (PMP).

The costs only consider the amount that it would take to install sidewalks on the surveyed roadway segments. Roadway improvement projects will cover some of the roadway segments in need of concrete sidewalks or asphalt walkways as a component of a larger corridor project.

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Antelope											
Antelope Rd	Driveway	Antelope Hills Dr	29	-	-	-	-	-	S	\$ 5,000	S
Antelope Rd	Grey Wolf Dr	Holbrook Way	824	-	-	-	-	-	S	\$ 152,000	S
Antelope Rd	Holbrook Way	Black Bear Dr	658	-	-	-	-	-	S	\$ 121,000	S
Antelope Rd	Walerga Rd	Driveway	203	0	1	0	0	12	S	\$ 37,000	S
Antelope Rd	Walerga Rd	Driveway	203	0	1	0	0	10	N	\$ 37,000	S
Elverta Rd	Quiet Knolls Dr	Walerga Rd	1,682	0	1	4	1	17	S	\$ 310,000	S
Walerga Rd	Big Cloud Way	Aparartments	594	0	0	0	0	17	W	\$ 110,000	S
Walerga Rd	Segment near Bogart W.	Segment near Garbo W.	200	-	-	-	-	-	E	\$ 37,000	S
Antelope Total										\$ 809,000	
Arden Arcade											
Alta Arden Expy	Richmond St	Watt Ave	814	0	0	4	0	17	S	\$ 150,000	S
Arden Way	Devonshire Rd	El Nido Way	79	0	1	0	0	13	S	\$ 15,000	S
Arden Way	Watt Ave	Devonshire Rd	824	-	-	-	-	-	S	\$ 152,000	S
Bell St	Cottage Way	Woodstock Way	322	-	-	-	-	-	W	\$ 59,000	S
Bell St	Woodstock Way	Wyda Way	993	-	-	-	-	-	W	\$ 183,000	S
Eastern Ave	Castec Dr	Alley	169	-	-	-	-	-	W	\$ 31,000	S
Eastern Ave	Corona Way	La Salle Dr	128	1	0	0	0	11	E	\$ 24,000	S
Eastern Ave	Corona Way	La Salle Dr	128	1	0	0	0	11	W	\$ 24,000	S
Eastern Ave	Entrada Rd	Alley	150	1	0	0	0	11	W	\$ 28,000	S
Eastern Ave	Fair Oaks Blvd	Loazell Ct	358	1	0	0	0	11	E	\$ 66,000	S
Eastern Ave	La Salle Dr	Corona Way	398	1	0	0	0	11	W	\$ 73,000	S
Eastern Ave	La Salle Dr	Corona Way	398	1	0	0	0	11	E	\$ 73,000	S
Eastern Ave	La Salle Dr	Entrada Rd	114	1	0	0	0	11	W	\$ 21,000	S
Eastern Ave	La Salle Dr	Entrada Rd	114	1	0	0	0	11	E	\$ 21,000	S
Eastern Ave	Loazell Ct	La Salle Dr	270	1	0	0	0	11	E	\$ 50,000	S
Eastern Ave	Puente Way	Castec Dr	347	-	-	-	-	-	W	\$ 64,000	S
Eastern Ave	Puente Way	Castec Dr	347	-	-	-	-	-	E	\$ 64,000	S
El Camino Ave	Anna Way	Darwin St	268	1	1	1	2	17	N	\$ 49,000	S
El Camino Ave	Anna Way	Darwin St	268	1	1	1	2	17	S	\$ 49,000	S
El Camino Ave	Moretti Way	127' west to Howe	127	1	1		2	19	N	\$ 23,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
El Camino Ave	Moretti Way	Tamarack Way	285	1	1	-	2	20	N	\$ 52,000	S
El Camino Ave	Morse Ave	Morse Ave/Drayton	646	1	1	-	3	18	S	\$ 119,000	S
El Camino Ave	St Mathews Dr	Kentfield Dr	296	0	1	2	0	16	S	\$ 14,000	S
Fair Oaks Blvd	Drake Cir / Mills Rd	Alley	95	0	0	0	0	15	S	\$ 18,000	S
Fair Oaks Blvd	Howe Ave	Fair Oaks Blvd	643	0	0	1	1	19	N	\$ 119,000	S
Fair Oaks Blvd	Howe Ave	Fair Oaks Blvd	643	0	0	1	1	19	S	\$ 119,000	S
Fair Oaks Blvd	Lake Oak Ct	Pietro Ln	979	0	0	0	0	15	S	\$ 181,000	S
Fair Oaks Blvd	Pietro Ln	Saverien Dr	428	0	0	0	0	15	S	\$ 79,000	S
Fulton Ave	Cooper Way	Arden Way	219	-	-	-	-	-	W	\$ 40,000	S
Fulton Ave	Hurley Way	Marigold Ln	988	-	-	-	-	-	W	\$ 182,000	S
Fulton Ave	Maison Way	Cooper Way	671	-	-	-	-	-	W	\$ 124,000	S
Fulton Ave	Marigold Ln	Wittkop Way	330	-	-	-	-	-	W	\$ 61,000	S
Fulton Ave	Wittkop Way	Maison Way	429	-	-	-	-	-	W	\$ 79,000	S
Hurley Way	Fulton Ave	Rowena Way	858	-	-	-	-	-	S	\$ 158,000	S
Hurley Way	Morse Ave	Rushden Dr	1,127	1	0	3	1	16	N	\$ 208,000	S
Marconi Ave	Lieno Ln	Morse Ave	559	0	1	1	1	14	N	\$ 103,000	S
Watt Ave	Arden Creek Rd	Maplewood Ln	565	-	-	-	-	-	W	\$ 104,000	S
Watt Ave	Ardendale Ln	Arden Creek Rd	483	-	-	-	-	-	W	\$ 89,000	S
Watt Ave	Cottage Way	Ardendale Ln	348	-	-	-	-	-	W	\$ 64,000	S
Watt Ave	Maplewood Ln	Alta Arden Expressway	148	-	-	-	-	-	W	\$ 27,000	S
Arden Arcade Total										\$ 3,159,000	
Carmichael											
Dewey Dr	Coyle Ave	north 130'	130	0	1	0	3	16	E	\$ 24,000	S
Dewey Dr	Coyle Ave	north 130'	130	0	1	0	3	16	W	\$ 24,000	S
Dewey Dr	Northbrook Way	Linda Sue Way	85	0	1	0	0	12	W	\$ 16,000	S
Dewey Dr	Northbrook Way	Linda Sue Way	85	0	1	0	0	11	E	\$ 16,000	S
Dewey Dr	Northbrook Way	south 219'	219	0	1	0	0	13	E	\$ 40,000	S
Dewey Dr	Northbrook Way	south 219'	219	0	1	0	0	12	W	\$ 40,000	S
Engle Rd	Garfield	Timmco Ct	414	-	-	-	-	-	N	\$ 76,000	S
Engle Rd	Garfield	Timmco Ct	414	-	-	-	-	-	S	\$ 76,000	S
Engle Rd	Hallelujah Ct	Fair Oaks Blvd	686	-	-	-	-	-	N	\$ 126,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Engle Rd	Hallelujah Ct	Fair Oaks Blvd	686	-	-	-	-	-	S	\$ 126,000	S
Engle Rd	Holloway Ln	Vega Ct	375	1	0	1	0	10	N	\$ 69,000	S
Engle Rd	Holloway Ln	Vega Ct	375	1	0	1	0	10	S	\$ 69,000	S
Engle Rd	Sareco Ct	Hallelujah Ct	267	-	-	-	-	-	N	\$ 49,000	S
Engle Rd	Sareco Ct	Hallelujah Ct	267	-	-	-	-	-	S	\$ 49,000	S
Engle Rd	Timmco Ct	Holloway Ln	413	1	0	1	0	12	N	\$ 76,000	S
Engle Rd	Timmco Ct	Holloway Ln	413	1	0	1	0	11	S	\$ 76,000	S
Engle Rd	Vega Ct	Sareco Ct	301	0	0	1	0	13	N	\$ 56,000	S
Engle Rd	Vega Ct	Sareco Ct	301	0	0	1	0	11	S	\$ 56,000	S
Fair Oaks Blvd	Ainsley Ct	Homewood Way	193	-	-	-	-	-	E	\$ 36,000	S
Fair Oaks Blvd	Ainsley Ct	Homewood Way	193	-	-	-	-	-	W	\$ 36,000	S
Fair Oaks Blvd	Arden Way	Walnut Ave	453	-	-	-	-	-	E	\$ 84,000	S
Fair Oaks Blvd	Arden Way	Walnut Ave	454	-	-	-	-	-	W	\$ 84,000	S
Fair Oaks Blvd	Cenacle Ln	Marchita Way	498	0	1	1	0	12	E	\$ 92,000	S
Fair Oaks Blvd	Cenacle Ln	Marchita Way	498	0	1	1	0	12	W	\$ 92,000	S
Fair Oaks Blvd	Chaplain Ln	Sumner Ln	994	0	1	-	0	19	N	\$ 183,000	S
Fair Oaks Blvd	Chaplain Ln	Sumner Ln	994	0	1	-	0	19	S	\$ 183,000	S
Fair Oaks Blvd	Claremont Rd	Van Ufford Ln	228	0	1	1	1	15	N	\$ 13,000	Aw
Fair Oaks Blvd	Claremont Rd	Van Ufford Ln	228	0	1	1	1	14	S	\$ 13,000	Aw
Fair Oaks Blvd	Day Dr	Menlo Ave	295	-	-	-	-	-	S	\$ 54,000	S
Fair Oaks Blvd	Del Dayo Dr	Mipaty Ln	252	-	-	-	-	-	S	\$ 46,000	S
Fair Oaks Blvd	Elsdon Cir	Paloma Ave	412	-	-	-	-	-	S	\$ 76,000	S
Fair Oaks Blvd	Fairchild Dr	Westminster Ct	348	0	1	-	0	15	E	\$ 64,000	S
Fair Oaks Blvd	Fairchild Dr	Westminster Ct	348	0	1	-	0	15	W	\$ 64,000	S
Fair Oaks Blvd	Fairwood Way	Dell Rd	493	0	1	-	1	21	S	\$ 91,000	S
Fair Oaks Blvd	Frontier Way	Wedgewood Ave	129	-	-	-	-	-	E	\$ 24,000	S
Fair Oaks Blvd	Frontier Way	Wedgewood Ave	130	-	-	-	-	-	W	\$ 24,000	S
Fair Oaks Blvd	Garfield Ave	Marywood Wy	10	0	0	1	1	15	W	\$ 1,000	Aw
Fair Oaks Blvd	Garfield Ave	Marywood Wy	10	0	0	1	1	15	E	\$ 1,000	Aw
Fair Oaks Blvd	Genesee Ct	Jacob Ln	293	-	-	-	-	-	N	\$ 54,000	S
Fair Oaks Blvd	Gunn Rd	Cenacle Ln	422	0	1	1	0	12	E	\$ 78,000	S
Fair Oaks Blvd	Gunn Rd	Cenacle Ln	422	0	1	1	0	12	W	\$ 78,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Fair Oaks Blvd	Homewood Way	Garfield Ave	498	-	-	-	-	-	E	\$ 92,000	S
Fair Oaks Blvd	Homewood Way	Garfield Ave	498	-	-	-	-	-	W	\$ 92,000	S
Fair Oaks Blvd	Jacob Ln	Philomene Ct	271	-	-	-	-	-	S	\$ 50,000	S
Fair Oaks Blvd	Marchita Way	Ainsley Ct	328	-	-	-	-	-	W	\$ 60,000	S
Fair Oaks Blvd	Marchita Way	Ainsley Ct	328	-	-	-	-	-	W	\$ 60,000	S
Fair Oaks Blvd	Marione Dr	Fairchild Dr	258	-	-	-	-	-	W	\$ 48,000	S
Fair Oaks Blvd	Marione Dr	Fairchild Dr	258	-	-	-	-	-	E	\$ 48,000	S
Fair Oaks Blvd	Marione Dr	Gunn Rd	748	-	-	-	-	-	E	\$ 138,000	S
Fair Oaks Blvd	Marione Dr	Gunn Rd	748	-	-	-	-	-	W	\$ 138,000	S
Fair Oaks Blvd	Marywood Ct	Seabler Pl	296	-	-	-	-	-	W	\$ 55,000	S
Fair Oaks Blvd	Marywood Ct	Seabler Pl	296	-	-	-	-	-	W	\$ 55,000	S
Fair Oaks Blvd	Mipaty Ln	Day Dr	316	-	-	-	-	-	S	\$ 58,000	S
Fair Oaks Blvd	Mission Ave	Genesee Ct	326	-	-	-	-	-	N	\$ 60,000	S
Fair Oaks Blvd	Oak Ave	Twin Gardens Rd	166	0	1	1	1	16	E	\$ 10,000	Aw
Fair Oaks Blvd	Oak Ave	Twin Gardens Rd	166	0	1	1	1	16	W	\$ 10,000	Aw
Fair Oaks Blvd	Paloma Ave	Arden Way	566	-	-	-	-	-	S	\$ 104,000	S
Fair Oaks Blvd	Philomene Ct	Del Dayo Dr	306	-	-	-	-	-	S	\$ 56,000	S
Fair Oaks Blvd	Seabler Pl	Sheffield Dr/ Elena Ln	292	-	-	-	-	-	N	\$ 54,000	S
Fair Oaks Blvd	Seabler Pl	Sheffield Dr/ Elena Ln	292	-	-	-	-	-	S	\$ 54,000	S
Fair Oaks Blvd	Sheffield Dr/ Elena Ln	Claremont Rd	297	-	-	-	-	-	N	\$ 55,000	S
Fair Oaks Blvd	Sheffield Dr/ Elena Ln	Claremont Rd	298	-	-	-	-	-	S	\$ 55,000	S
Fair Oaks Blvd	Twin Gardens Rd	Frontier Way	563	0	1	1	1	17	E	\$ 104,000	S
Fair Oaks Blvd	Twin Gardens Rd	Frontier Way	563	0	1	1	1	17	W	\$ 104,000	S
Fair Oaks Blvd	Van Ufford Ln	Oak Ave	550	0	1	1	0	16	S	\$ 32,000	Aw
Fair Oaks Blvd	Van Ufford Ln	Oak Ave	550	0	1	1	0	16	N	\$ 32,000	AW
Fair Oaks Blvd	Walnut Ave	Marione Dr	298	-	-	-	-	-	E	\$ 55,000	S
Fair Oaks Blvd	Walnut Ave	Marione Dr	298	-	-	-	-	-	W	\$ 55,000	S
Fair Oaks Blvd	Wedgewood Ave	Van Alstine Ave	499	-	-	-	-	-	E	\$ 92,000	S
Fair Oaks Blvd	Wedgewood Ave	Van Alstine Ave	499	-	-	-	-	-	W	\$ 92,000	S
Fair Oaks Blvd	Westminster Ct	Marione Dr	66	0	0	0	0	14	E	\$ 4,000	Aw
Fair Oaks Blvd	Westminster Ct	Marione Dr	66	0	0	0	0	12	W	\$ 4,000	Aw
Mission Ave	El Camino Ave	Melvin Dr	705	-	-	-	-	-	E	\$ 130,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Mission Ave	Hardcastle Ln	Nottingham Cir	119	-	-	-	-	-	E	\$ 22,000	S
Mission Ave	Knapp Wy	Laurelwood Wy	211	-	-	-	-	-	E	\$ 39,000	S
Mission Ave	Laurelwood Wy	Cottage Wy	480	-	-	-	-	-	E	\$ 89,000	S
Mission Ave	Melvin Dr	Oxbow Dr	298	-	-	-	-	-	E	\$ 55,000	S
Mission Ave	Nelroy Wy	Nottingham Cir	184	-	-	-	-	-	E	\$ 34,000	S
Mission Ave	Nottingham Cir	Hardcastle Ln	212	-	-	-	-	-	E	\$ 39,000	S
Mission Ave	Nottingham Cir	Knapp Wy	120	-	-	-	-	-	E	\$ 22,000	S
Mission Ave	Oxbow Dr	Nelroy Wy	203	-	-	-	-	-	E	\$ 37,000	S
San Juan Ave	Ash Rd	Winding Wy	384	1	1	0	0	12	E	\$ 18,000	S
San Juan Ave	Ash Rd	Winding Wy	384	1	1	0	0	12	W	\$ 35,000	S
Winding Way	Alley	San Juan Ave	323	-	-	-	-	-	N	\$ 60,000	S
Winding Way	Barrett Rd	Meyer Way	606	1	1	0	0	14	S	\$ 112,000	S
Winding Way	Charleston Dr	Dewey Dr	151	1	1	0	0	14	N	\$ 28,000	S
Winding Way	Charleston Dr	Dewey Dr	151	1	1	0	0	14	S	\$ 28,000	S
Winding Way	Dewey Dr	Rustic Rd	1187	-	-	-	-	-	S	\$ 219,000	S
Winding Way	Isabella Ave	Alley	310	-	-	-	-	-	N	\$ 57,000	S
Winding Way	Isabella Ave	Alley	310	-	-	-	-	-	S	\$ 57,000	S
Winding Way	Johnson Dr	Solano Way	397	-	-	-	-	-	N	\$ 73,000	S
Winding Way	Johnson Dr	Solano Way	397	-	-	-	-	-	S	\$ 73,000	S
Winding Way	Meyer Way	Charleston Dr	525	1	1	0	1	15	N	\$ 97,000	S
Winding Way	Meyer Way	Charleston Dr	525	1	1	0	1	14	S	\$ 97,000	S
Winding Way	Olivegate Dr	Isabella Ave	34	-	-	-	-	-	N	\$ 6,000	S
Winding Way	Olivegate Dr	Isabella Ave	34	-	-	-	-	-	S	\$ 6,000	S
Winding Way	Rustic Rd	Stollwood Dr	1287	-	-	-	-	-	S	\$ 237,000	S
Winding Way	Solano Way	Olivegate Dr	281	-	-	-	-	-	N	\$ 52,000	S
Winding Way	Solano Way	Olivegate Dr	281	-	-	-	-	-	S	\$ 52,000	S
Winding Way	Solano Way	Solano Way	43	-	-	-	-	-	N	\$ 8,000	S
Winding Way	Solano Way	Solano Way	43	-	-	-	-	-	S	\$ 8,000	S
Winding Way	Stollwood Dr	Zelinda Dr	15	-	-	-	-	-	S	\$ 3,000	S
Winding Way	Windmill Way	Hackberry Ln	278	1	0	-	1	13	N	\$ 51,000	S
Winding Way	Windmill Way	Hackberry Ln	278	1	0	-	1	13	S	\$ 51,000	S
Winding Way	Windmill Way	Manzanita Ave	1077	-	-	-	-	-	N	\$ 199,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Winding Way	Windmill Way	Manzanita Ave	1077	-	-	-	-	-	S	\$ 199,000	S
Winding Way	Zelinda Dr	Johnson Dr	776	-	-	-	-	-	N	\$ 143,000	S
Winding Way	Zelinda Dr	Johnson Dr	776	-	-	-	-	-	S	\$ 143,000	S
<i>Carmichael Total</i>										\$ 7,040,000	
<i>Cosumnes</i>											
Jackson Rd	Kiefer	Latrobe Rd	2,576	0	0	0	0	14	S	\$ -	None
Jackson Rd	Kiefer	Latrobe Rd	2,576	0	0	0	0	14	N	\$ 150,000	Aw
<i>Cosumnes Total</i>										\$ 150,000	
<i>Delta / Franklin/Laguna</i>											
Hood-Franklin Rd	I-5	Franklin Blvd	6,378	1	0	0	0	14	N	\$ 371,000	AW
<i>Delta / Franklin/Laguna Total</i>										\$ 371,000	
<i>Fair Oaks</i>											
Fair Oaks Blvd	Archer Ave	Monte Park Ave	169	1	1	1	1	14	W	\$ 31,000	S
Fair Oaks Blvd	McMillan Dr	Oahu Dr	319	1	1	-	0	13	E	\$ 19,000	Aw
Fair Oaks Blvd	McMillan Dr	Oahu Dr	319	1	1	-	0	13	W	\$ 59,000	S
Fair Oaks Blvd	Oahu Dr	Kalua Dr	319	-	-	-	-	-	E	\$ 59,000	S
Fair Oaks Blvd	Oahu Dr	Kalua Dr	319	-	-	-	-	-	W	\$ 59,000	S
Fair Oaks Blvd	Shangrila Dr	Archer Ave	116	1	1	1	0	14	W	\$ 21,000	S
Fair Oaks Blvd	Shangrila Dr	Archer Ave	116	1	1	1	0	13	E	\$ 21,000	S
Kenneth Ave	Gunner Way	Rolling Creek Way	544	0	0	0	0	9	E	\$ 100,000	S
Kenneth Ave	Gunner Way	Rolling Creek Way	544	0	0	0	0	8	W	\$ 75,000	S
Kenneth Ave	Jomarr Ln	Phoenix Ave	656	0	0	0	0	9	W	\$ 121,000	S
Kenneth Ave	Jomarr Ln	Phoenix Ave	656	0	0	0	0	9	E	\$ 121,000	S
Kenneth Ave	Rolling Creek Way	Kenneth Creek Ln	268	0	0	0	0	9	E	\$ 49,000	S
Kenneth Ave	Sunset Ave	Gunner Way	1,252	1	0	0	1	12	W	\$ 231,000	S
Kenneth Ave	Sunset Ave	Gunner Way	1,252	1	0	0	1	12	E	\$ 231,000	S
Madison Ave	San Juan Ave	Highview Ln	968	0	1	1	1	17	S	\$ 178,000	S
Madison Ave	Shire Ct	Waikiki Dr	139	1	1	-	1	18	N	\$ 26,000	S
Madison Ave	Shire Ct	Waikiki Dr	139	1	1	-	1	18	S	\$ 26,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Madison Ave	Waikiki Dr	Greenbreier Way	120	1	1	-	1	17	N	\$ 22,000	S
Madison Ave	Waikiki Dr	Greenbreier Way	120	1	1	-	1	17	S	\$ 22,000	S
Madsion Ave	Norway Dr	Norway Dr (West)	127	0	1	-	0	21	N	\$ 23,000	S
San Juan Ave	Ash Rd	Walnut Rd	462	1	1	-	0	14	E	\$ 85,000	S
San Juan Ave	Walnut Rd	Midiron Dr	292	1	1	-	0	14	E	\$ 54,000	S
San Juan Ave	Walnut Rd	Walnut Rd	27	0	0	-	0	12	E	\$ 5,000	S
San Juan Ave	Winding Way	Ash Rd	384	1	1	-	0	12	E	\$ 71,000	S
Fair Oaks Total										\$ 1,709,000	
Franklin/Laguna											
Eschinger Rd	Carroll Rd	W Stockton Blvd	18,281	0	0	-	0	14	N	\$ 1,064,000	AW
Eschinger Rd	W Stockton Blvd	USHY 99	247	0	0	-	0	14	N	\$ 14,000	AW
Eschinger Rd	W Stockton Blvd	USHY 99	247	0	0	-	0	14	S	\$ 14,000	AW
Franklin/Laguna Total										\$ 1,092,000	
North Highlands/Foothill Farms											
Antelope Rd	Nott Ln	Daly Ave	1,378	0	1	0	0	10	N	\$ 127,000	S
Elkhorn Blvd	I - 80	Diablo Dr	1,193	1	1	-	0	19	W	\$ 69,000	AW
Roseville Rd	Watt Ave	Changes to Madison Ave	605	0	0	1	1	17	E	\$ 112,000	S
Roseville Rd	Watt Ave	Changes to Madison Ave	605	0	0	1	1	16	W	\$ 112,000	S
North Highlands/Foothill Farms Total										\$ 420,000	
Orangevale											
Hazel Ave	Elm Lane	Central Av	2,636	-	-	-	-	-	-	\$ 122,000	S
Hazel Ave	Oak Ave	Park Entrance	741	1	1	-	3	17	W	\$ 43,000	AW
Hazel Ave	Oak Ave	Park Entrance	741	1	1	-	3	17	E	\$ 68,000	S
Orangevale Total										\$ 233,000	
Rio Linda/Elverta											
L St	6th Ave	7th St	319	-	-	-	-	-	N	\$ 59,000	S
L St	6th St	6th Ave	335	1	0	-	0	10	N	\$ 62,000	S
Rio Linda Blvd	E St	G St	1,308	-	-	-	-	-	W	\$ 76,000	AW

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Rio Linda Blvd	G St	Elkhorn Blvd	1,328	-	-	-	-	-	W	\$ 77,000	AW
Rio Linda Blvd	Marysville Blvd	E St	732	-	-	-	-	-	W	\$ 43,000	AW
<i>Rio Linda/Elverta Total</i>										\$ 317,000	
<i>South Sacramento</i>											
47th Ave	45th	Welty Way	239	-	-	-	-	-	S	\$ 44,000	S
47th Ave	Laurine Way	Leola Way	246	-	-	-	-	-	S	\$ 45,000	S
47th Ave	Welty Way	Laurine Way	247	1	1	-	1	20	S	\$ 46,000	S
Cottonwood Ln	Elsie Ave	Gainswood Ln	518	1	1	0	0	10	E	\$ 48,000	S
E Stockton Blvd	Stevenson Ave	Power Inn Rd	3,090	-	-	-	-	-	W	\$ 180,000	AW
E Stockton Blvd	Stevenson Ave	Power Inn Rd	751	-	-	-	-	-	W	\$ 138,000	S
Elsie Ave	Robinette Rd	La Fiesta Way	923	0	1	-	0	15	N	\$ 170,000	S
Elsie Ave	Robinette Rd	La Fiesta Way	923	0	1	-	0	15	S	\$ 170,000	S
French Rd	Sun Florin Dr	Elaine Dr	692	0	0	-	1	15	W	\$ 128,000	S
Gerber Rd	Palmer House Dr	Power Inn Rd	1,306	0	1	-	1	17	N	\$ 60,000	S
Gerber Rd	Power Inn Rd	Fernridge Dr	986	0	1	-	1	16	S	\$ 46,000	S
Power Inn Rd	Blackhawk Dr	Loucreta Dr	326	1	0	-	1	18	E	\$ 60,000	S
Power Inn Rd	Elsie Ave	Lenhart Rd	1,983	1	1	-	1	15	E	\$ 366,000	S
Power Inn Rd	Elsie Ave	Lenhart Rd	1,983	1	1	-	1	15	W	\$ 366,000	S
Power Inn Rd	Florin Rd	Blackhawk Dr	1,152	1	0	-	1	18	W	\$ 212,000	S
Power Inn Rd	Florin Rd	Blackhawk Dr	1,152	1	0	-	1	18	E	\$ 212,000	S
Power Inn Rd	Gerber Rd	Trail Woods Dr	930	0	1	-	1	20	E	\$ 86,000	S
Power Inn Rd	Hemingway Dr	Elsie Ave	525	0	1	-	0	13	E	\$ 73,000	S
Power Inn Rd	Lenhart Rd	Speilberg Way	534	1	1	-	0	15	W	\$ 98,000	S
Power Inn Rd	Llanovista	Calvine Rd	604	0	1	-	0	15	W	\$ 111,000	S
Power Inn Rd	Loucreta Dr	68th Ave	694	1	0	-	3	19	W	\$ 64,000	S
Power Inn Rd	McFadden Dr	Gerber Rd	665	0	1	-	0	18	E	\$ 31,000	S
Power Inn Rd	Skywoods Way	Hemingway Dr	628	0	1	-	0	15	E	\$ 87,000	S
Stevenson Ave	Beachmont Way	Lexus Way	449	-	-	-	-	-	N	\$ 62,000	S
Stevenson Ave	Elegante Way	Spearberry Way	280	-	-	-	-	-	N	\$ 39,000	S
Stevenson Ave	Elegante Way	Spearberry Way	280	-	-	-	-	-	S	\$ 39,000	S
Stevenson Ave	Goshen Way	Beachmont Way	696	-	-	-	-	-	N	\$ 96,000	S

Table 22: Sidewalk or Asphalt Walkway CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Transit	Input ¹	Collision Severity ²	Rank	Direction	Cost (2006)	Recommend ³
Stevenson Ave	Parkgate Way	Elegante Way	247	-	-	-	-	-	N	\$ 34,000	S
Stevenson Ave	Spearberry Way	Cottonwood Ln	526	-	-	-	-	-	N	\$ 73,000	S
Stevenson Ave	Spearberry Way	Cottonwood Ln	526	-	-	-	-	-	S	\$ 73,000	S
Stevenson Ave	Spengler Dr	Parkgate Way	257	-	-	-	-	-	N	\$ 36,000	S
Stevenson Ave	Springarden Way	Golden Meadow Dr	702	-	-	-	-	-	N	\$ 97,000	S
Stockton Blvd	Chandler Dr	Orange Ave	1,407	0	1	0	1	12	W	\$ 259,000	S
Stockton Blvd	Gerber Rd	Massie Ct	1,070	1	1	-	2	18	E	\$ 49,000	S
Stockton Blvd	Gerber Rd	Massie Ct	1,070	1	1	-	2	18	W	\$ 99,000	S
Stockton Blvd	Patterson Way	236' northwest	236	0	1	-	0	12	E	\$ 14,000	AW
Stockton Blvd	Patterson Way	284' southeast	284	0	1	-	0	12	E	\$ 17,000	AW
Stockton Blvd	Segment between	Patterson Way & 65th St	197	0	1	-	0	12	E	\$ 11,000	AW
Stockton Blvd	Segment between	Patterson Way & 65th St	243	0	1	-	0	14	E	\$ 14,000	AW
Stockton Blvd	Walter Ave	Whitewillow Dr	692	1	0	0	1	14	E	\$ 128,000	S
Stockton Blvd	Walter Ave	Whitewillow Dr	692	1	0	0	1	12	W	\$ 128,000	S
Stockton Blvd	Whitewillow Dr	Stacy Ave	163	1	0	-	1	15	W	\$ 9,000	AW
South Sacramento Total										\$ 4,118,000	
Vineyard											
Vineyard Rd	Gerber Rd	Mission Hills Dr	2,768	0	0	0	0	20	E	\$ 161,000	AW
Vineyard Total										\$ 161,000	
TOTAL CIP										\$ 19,580,000	

¹ Collision severity was determined using the California Department of Motor Vehicle's method of human capital costs.

² For more details, refer to the Project Criteria Weighting section under the Project Selection Process of the Implementation Plan chapter.

³ S=sidewalk; AW = asphalt walkway.

Safe Routes to School

Description: Safe Routes to School (SR2S) projects are listed separately to emphasize the importance of having pedestrian infrastructure adjacent to schools. These projects could compete for SR2S monies, which originate from federal transportation safety funding.

The walkway projects recommended for improvement in the section below are adjacent to schools, and exist primarily to facilitate pedestrian travel for school children. Furthermore, the majority of midblock crossing projects, shown in the midblock crossing section below, are adjacent to schools and could qualify for Safe Routes to School monies.

Potential walkway projects also could exist on school or college properties, yet are not listed in this plan since the plan only covers SacDOT right-of-way. For example, the American River College (ARC) could purchase property between the college and Winding Way. ARC then could construct a path to encourage walking and biking to/from the school. If ARC implemented this project, SacDOT would need to coordinate the project with street crossing improvements on Winding Way at this location.

School district representatives suggested several pedestrian improvement projects for potential funding (Table 23). The study team contacted all the school districts located in the unincorporated areas. Some school district representatives such as Arcohe Union in Herald did not have any specific improvement requests.

Order-of-Magnitude Cost: \$10,979,000 (CIP). The remaining SR2S projects are combined with the concrete sidewalk/ asphalt walkway projects in the Pedestrian Master Plan as shown in the Technical Appendix.

Table 23: School District Request CIP Projects

School	Streets	Project	Cost (2006)
Arcohe Union			
Elverta Joint (Rio Linda/Elverta)			
Elverta Elementary (Rio Linda/Elverta)	Eloise Street	1-way conversion; sidewalk install (1,635 ft); curb extension at each end to help block wrong way traffic; 3 lights recommended	\$350,000 for sidewalk and curb extension projects
Elk Grove Unified School District (Elk Grove/South Sacramento)			
Anna Kirchgater Elementary (South Sacramento)	Stevenson Rd (1,186 ft)	Sidewalk installation	\$164,000
Grant Joint Union High (Rio Linda/Elverta and North Highlands/Foothill Farms)			
Don Julio JHS / Highlands HS – (N. Highlands/Foothill Farms)	Keema Ave, Walerga Rd, Don Julio Blvd (1,496 ft), Guthrie St.	Sidewalk removal and replacement; installation on Don Julio Blvd	\$275,000 installation \$160,000 improve
Rio Linda HS (Rio Linda) – (Rio Linda/Elverta)	Dry Creek Rd between Elkhorn Blvd and G St.	Sidewalk installation (1,330 ft); 3 lights recommended	\$250,000 for sidewalk projects
Los Rios Community College			
American River Jr College (N.Highlands / Foothill Farms)	College Oak Dr, (3,240 ft); Myrtle Ave (400 ft); Orange Grove Ave (400 ft)	Sidewalk installations	\$780,000
Natomas Unified			
Rio Linda Union			
Dry Creek Elementary (Rio Linda)	G Street between Dry Creek Rd and School	3 lights recommended	See lighting for costs
Orchard Elementary (Rio Linda)	Q St between Dry Creek Rd and School; Dry Creek Rd between Q St and O St; O St from Dry Creek Rd to Alville	Sidewalk installation and 4 streetlights	\$253,000 for sidewalks
Vineland Elementary (Rio Linda)	20 th St (661 ft. north) and I St (657 ft. east)	Sidewalk installation	\$243,000
West Second Elementary (Rio Linda)	West Second Street	4 streetlights recommended	See Lighting
River Delta Unified			
San Juan Unified			
Albert Schweitzer Elementary (Carmichael)	Glenridge Dr from Stollwood Dr to Woodknoll Way	Sidewalk installation	\$365,000
Barrett MS (Fair Oaks)	Barrett Rd from Rampart Dr to Lincoln Ave	Sidewalk installation (both sides)	\$634,000
Carmichael Elementary (Carmichael)	California Ave betw Grant Ave and Fair Oaks Blvd (2,644 ft); Sutter Ave betw Fair Oaks Blvd and Marshall (5,387 ft)	Sidewalk installation	\$1,500,000

Charles Peck Elementary (Carmichael)	Rutland Dr from McKinney Way to Lynnadeane Ct	Sidewalk installation	\$193,000
Del Dayo Elementary (Carmichael)	McClaren Dr from Kingsford to Sandbar Circle	Sidewalk installation	\$115,000
Dewey Elementary (Fair Oaks)	Sunset Ave and Goodyear Dr	Sidewalk installation (both sides)	\$1,022,000
Dyer-Kelly Elementary (Arden Arcade)	Edison Ave betw Dyer-Kelly and Wright St (2,162 ft); Bell St betw Dunlap Dr to Rainbow Ave (1,924 ft)	Sidewalk installation	\$775,000
Earl LeGette Elementary (Fair Oaks)	Kenneth Ave (Hans Engle Way to Sunset Ave)	Sidewalk installation	\$206,000
El Camino High (Arden Arcade)	Eastern Ave betw Alva Ct and Cottage Way (4,110 ft); El Camino Way betw school and Mission Ave (2,647 ft)	Sidewalk installation	\$1,250,000
Garfield Elementary (Carmichael)	Engle (Garfield to Gracey Way)	Sidewalk installation	\$138,000
Greer Elementary (Arden Arcade)	Hurley Way, Bell St. (3,000 ft)	Sidewalk installation	\$550,000
John Holst Ele. (Fair Oaks)	Bannister Rd (1,180 ft)	Sidewalk installation, midblock crossing	\$220,000
La Entrada HS (N. Highlands / Foothill Farms)	Hemlock St betw Palm Ave and Madison Ave (2,647 ft)	Sidewalk installation	\$500,000
Mary C Deterding Elementary (Carmichael)	Panama Ave (1,973 ft); Stanley Ave betw school and California Ave (1,010 ft)	Sidewalk installation	\$550,000
Starr King K-8 (Fair Oaks)	Cottage Way from Mission Ave to Eric Rd	Sidewalk installation	\$248,000
Thomas Kelly Elementary (Carmichael)	Moraga Dr from Jan Dr to Bellue St	Sidewalk installation	\$138,000
Whitney Avenue Ele. (Arden Arcade)	Eastern Ave betw Whitney Ave and Marley Dr (575 ft)	Sidewalk installation	\$100,000
Total			\$10,979,000

Safe Routes to Transit

Description: Bus routes are one of the highest generators of pedestrian trips so Safe Routes to Transit projects are shown in a separate category to ensure that bus routes have improved pedestrian facilities.

Safe Routes to Transit projects consist of sidewalk or asphalt walkway installations along bus routes. The ADA Transition Plan recommends projects along bus routes that involve the street crossing and the path of travel between the bus stop and the street crossing.

These Safe Routes to Transit projects recommend locations that do not meet the prioritization cutoff in the Sidewalk /Asphalt Walkway category for the short-term Pedestrian CIP (Table 24).

Order-of-Magnitude Cost: \$3,081,000 (CIP). The remaining transit projects are combined with the concrete sidewalk/ asphalt walkway projects in the Pedestrian Master Plan as shown in the Technical Appendix.

Table 24: Safe Routes to Transit CIP Projects

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Side- walk %	Input	Collision Severity ¹	Rank ²	Direction	Cost	Recommend ³
<i>Antelope</i>											
ANTELOPE RD	WOLFE DR	ANTELOPE HILLS DR	1208	0	0	0	0	13	South	\$223,000	S
WALERGA RD	SHANDWICK DR	ELVERTA DR	379	0	0	0	0	13	East	\$70,000	S
										\$293,000	
<i>Arden Arcade</i>											
EL CAMINO AVE	DARWIN ST	HOWE AVE	672	1	50	4	2	19	South	\$62,000	S
EL CAMINO AVE	MORETTI WAY	BARCELONA WAY	101	1	0	2	2	18	South	\$19,000	S
EL CAMINO AVE	MORETTI WAY	127' WEST TO HOWE	127	1	0	1	2	18	South	\$23,000	S
EL CAMINO AVE	MORSE AVE	DRAYTON DR	646	1	75	2	3	18	North	\$30,000	S
EL CAMINO AVE	KENTFIELD DR	YORKTOWN AVE	381	0	50	3	1	18	North	\$35,000	S
EL CAMINO AVE	BRIDLE PATH LN	MISSION AVE	414	1	50	2	1	18	North	\$38,000	S
EL CAMINO AVE	CATALINA DR	IONE ST	302	1	0	1	1	18	South	\$55,000	S
EL CAMINO AVE	AVALON DR	MARYAL DR	334	1	0	1	1	18	South	\$62,000	S
MARCONI AVE	EASTERN AVE	GREENWOOD AVE	1325	0	0	1	1	18	West	\$244,000	S
PASADENA AVE	COPPERTREE WAY	EDISON AVE	368	1	0	0	0	10	North	\$51,000	s
										\$619,000	
<i>Carmichael</i>											
FAIR OAKS BLVD	FAIRWOOD WAY	DELL RD	493	0	25	1	1	19	North	\$68,000	S
										\$68,000	
<i>Fair Oaks</i>											
SUNRISE BLVD	CANYON DR	FAIR OAKS BLVD	362	0	75	1	0	17	East	\$17,000	S
SUNRISE BLVD	HOWARD ST	CANYON DR	137	0	0	0	0	17	East	\$25,000	S
SUNRISE BLVD	RANCHO CORDOVA	NORTH OF RANCHO CORDOVA	261	0	0	0	0	17	West	\$48,000	S
SUNRISE BLVD	RANCHO CORDOVA	NORTH OF RANCHO CORDOVA	261	0	0	0	0	17	East	\$48,000	S
										\$138,000	

Street Name	Cross Street 1	Cross Street 2	Length (ft)	School	Side- walk %	Input	Collision Severity ¹	Rank ²	Direc- tion	Cost	Reco mme nd ³
North Highlands/Foothill Farms											
ANTELOPE RD	ROSEVILLE RD	NOTT LN	593	0	0	0	0	17	North	\$109,000	S
ANTELOPE RD	ROSEVILLE RD	NOTT LN	593	0	0	0	0	17	South	\$109,000	S
COLLEGE OAK DR	GRADUATES LN	ORANGE GROVE AVE	452	1	0	1	1	17	East	\$83,000	S
										\$301,000	
Orangevale											
GREENBACK LN	PECAN WAY	GREEN TOP WAY	520	0	0	1	1	17	South	\$96,000	S
										\$96,000	
South Sacramento											
CALVINE RD	BARRYMORE DR	HARDESTER DR	446	1	50	0	0	14	North	\$41,000	S
ELSIE AVE	SUNCOUNTRY LN	LA FIESTA WAY	563	0	0	0	0	14	South	\$104,000	S
ELSIE AVE	HALBRITE WAY	SUNRISEGREENS DR	819	0	25	0	0	14	North	\$113,000	S
STOCKTON BLVD	CITY BOUNDARY	PATTERSON WY	83	0	0	0	0	14	West	\$5,000	AW
44TH ST	ROOSEVELT AVE	22ND AVE	310	1	25	0	1	13	East	\$43,000	S
COTTONWOOD LN	GAINSWOOD LN	SIERRA SUNSET DR	644	1	0	0	0	13	East	\$119,000	S
ELSIE AVE	ROBINETTE RD	POWER INN RD	535	0	0	0	0	13	South	\$99,000	S
ELSIE AVE	ROBINETTE RD	POWER INN RD	535	0	0	0	0	13	North	\$99,000	S
GERBER RD	ST ANDRE LN	COUNTRY PARK DR	109	0	0	1	0	13	North	\$20,000	S
GERBER RD	REESE RD	BELLROSE LN	312	0	0	1	0	13	South	\$58,000	S
GERBER RD	REESE RD	BELLROSE LN	312	0	0	1	0	13	North	\$58,000	S
GERBER RD	GOLDENROD LN	PARK PKWY	392	0	0	0	0	13	South	\$72,000	S
GERBER RD	WILBUR WAY	REESE RD	410	0	0	1	0	13	North	\$76,000	S
GERBER RD	FERNRIDGE DR	ST ANDRE LN	908	0	50	1	1	13	South	\$84,000	S
GERBER RD	COUNTRY PARK DR	WILBUR WAY	1201	0	0	1	0	13	North	\$221,000	S
POWER INN RD	HEMINGWAY DR	ELSIE AVE	525	0	50	1	0	13	West	\$48,000	S
POWER INN RD	E STOCKTON BLVD	LLANOVISTA DR	603	0	0	1	0	13	West	\$111,000	S
STOCKTON BLVD	CHANDLER DR	ORANGE AVE	1407	0	25	0	1	13	East	\$195,000	S
										\$1,566,000	
Total										\$3,081,000	

¹ Collision severity was determined using the CA Department of Motor Vehicle's human capital costs with three as the highest severity value.

² For more details, refer to the Project Criteria Weighting section under the Project Selection Process of the Implementation Plan chapter

³ S=sidewalk; AW = asphalt walkway.

Sidewalk Obstruction Removals

Description: In many areas of the unincorporated County, sidewalks exist but are obstructed by utility equipment and poles or street furniture. In these areas, the County may not plan to undertake major sidewalk projects, but still has the objective of improving sidewalk access for all pedestrians. The County currently is in discussion with the Sacramento Municipal Utility District regarding a cooperative program to remove sidewalk obstructions caused by utility equipment. This could be accomplished by moving the pole or equipment out of the path of travel or finding a way to provide an adequate path of travel around them. It is anticipated that an annual project list will be developed in cooperation with SMUD. In addition, the County will determine if other obstructions on these corridors can be addressed in cooperation with the obstructions identified by SMUD.

Order-of-Magnitude Cost: The cost of work will be borne by SMUD.

Midblock Crossings

Description: The Federal Highway Administration recommends having additional safety measures at midblock crossings, beyond the crosswalk markings, when there are more than two lanes of travel.

The recommended improvements are considered for streets with two lanes that have higher traffic volumes as well as for streets with over two lanes (Table 25). A signal warrant study will be needed for midblock crossings with recommended traffic signal installations. The existing midblock crossings are usually adjacent to schools at 20 out of 29 of the existing locations. Five new midblock crossings are recommended to help connect shopping districts.

Beyond the Pedestrian CIP, SacDOT anticipates that midblock crossing needs will persist. During the next five years, SacDOT will solicit input from the Community Policy Advisory Councils and other groups to seek feedback on remaining midblock crossing needs. Midblock crossing projects requested through community input will be considered for implementation once the ten-year Pedestrian CIP is funded, funding becomes available or priorities change. Midblock crossing improvements could include:

- Curb extensions that make pedestrians more visible, recommended only where on-street parking exists
- Curb ramps
- Enhanced pavement markings
- Fluorescent yellow-green warning signs; drivers can recognize these signs from a greater distance
- Lighting enhancements, recommended adjacent to junior high schools, high schools and universities
- Median refuges to allow slow pedestrians to cross streets in two phases
- Raised crosswalks, recommended on residential streets only
- Traffic signal with accessible pedestrian signals
- Yield to pedestrian signs, recommended where pedestrian-involved collisions have occurred on two-lane roadways

Order-of-Magnitude Cost: \$1,919,000 (CIP); \$1,000,000 (PMP). The PMP projects are spread evenly between community areas.

Table 25: Midblock Crossing CIP Projects

Street Name	Cross St 1	Cross St 2	Bus Rte	Speed	ADT	Colli-sions ¹	Land Use	Lanes	Project Description	Cost Est.
<i>Antelope</i>										
BENJAMIN DR	PEBBLE OAKS CT	CEDAR MEADOW DR	0	25	2,000	0	Single-family residential	2	No recommended projects	NA
BLACK SADDLE DR	DRIVER RANCH CT	SINGLETERRY WAY	1	25	4,000	0	Single-family residential	2	No recommended projects	NA
N LOOP BLVD	DIANE DR	SCRUB OAK WAY	1	40	6,565	0	Oak Hill Ele	4	Signs; pavement markings	\$5,000
<i>Antelope Total</i>										\$5,000
<i>Arden Arcade</i>										
BELL ST	CARLSBAD AVE	CHURCH AVE	0	35	8,145	1	Dyer-Kelly Ele	2	Raised crosswalk; curb extensions (2); double fine zone signs	\$71,000
EDISON AVE	WATT AVE	ANNADALE LN	0	35	5,918	1	Arcade JHS	2	Raised crosswalk; curb extensions (2), lighting (2), double fine zone signs	\$81,000
EL CAMINO AVE	EASTERN AVE	GREENWOOD	1	40	26,129	1	El Camino HS	4	Pedestrian signal exists; curb extensions (2); lighting (2), double fine zone signs	\$51,000
HOWE AVE (NEW)	WYDA WAY	COTTAGE WAY	1	40	24,800	3	Shopping on both sides; over 1,000 ft betw XINGs	6	Pedestrian signal; curb extensions (2); lighting (2); pavement markings	\$225,000
WATT AVE	CLUB LN	WHITNEY AVE	1	40	70,000	2	Arcade JHS	7	Pedestrian signal exists; curb extensions (2); lighting (2); double fine zone signs	\$51,000
<i>Arden Arcade Total</i>										\$479,000

Street Name	Cross St 1	Cross St 2	Bus Rte	Speed	ADT	Colli- sions ¹	Land Use	Lanes	Project Description	Cost Est.
<i>Carmichael</i>										
FAIR OAKS BLVD (NEW)	ROBERTSON AVE	PALM DR	1	45	49,112	3	Shopping on both sides; over 1,000 ft betw XINGs	4	Pedestrian signal, curb extensions (2); lighting (2); ladder type pavement markings	\$223,000
KERMIT LN	JUDISTINE DR	LINKER CT	0	25	4,000	0	Leighton Littlejohn Ele	2	No recommended projects	NA
LINCOLN AVE	MANZANITA AVE	SALMAAN DR	0	35	5,858	0	High-density housing, retail	2	Raised crosswalk; curb extensions (2)	\$70,000
<i>Carmichael Total</i>										\$293,000
<i>Fair Oaks</i>										
BANNISTER RD	WINDING WAY	WIDGEON WAY	0	25	4,000	0	John Holst Ele	2	No recommended projects	NA
COCOA PALM WAY	MOLOKAI WAY	OAHU DR	0	25	4,000	0	Northridge Ele	2	No recommended projects	NA
HOWARD ST	PENNSYLVANIA AVE	VILLA CT	0	30	2,000	0	Single-family residential	2	No recommended projects	NA
ILLINOIS AVE	PHOENIX AVE	MCHERN CT	1	35	5,494	0	Single-family residential	2	No recommended projects	NA
MADISON AVE (NEW)	PRIMROSE DR	SUNRISE BLVD	1	40	47,900	0	Shopping on both sides; over 1,000 ft betw XINGs	6	Pedestrian signal; curb extensions (2); lighting (2); pavement markings	\$225,000
OAHU DR	COCOA PALM WAY	KAUAI WAY	0	25	4,000	0	Northridge Ele	2	No recommended projects	NA
PENNSYLVANIA AVE	VIA ROMA DR	SUNSET AVE	0	25	4,000	0	Private school, church, office	2	No recommended projects	NA
WEDGE CIR	BUNKER CT	MADISON AVE	0	25	2,000	0	Single-family residential	2	No recommended projects	NA
<i>Fair Oaks Total</i>										\$225,000

Street Name	Cross St 1	Cross St 2	Bus Rte	Speed	ADT	Colli- sions ¹	Land Use	Lanes	Project Description	Cost Est.
<i>Fair Oaks / Orangevale</i>										
ILLINOIS AVE	TURNBULL CIR	PERSHING AVE	0	25	6,947	0	Roberts Ele	2	Raised crosswalk; curb extensions (2); lighting (2)	\$40,000
<i>Fair Oaks / Orangevale Total</i>										\$40,000
<i>North Highlands/Foothill Farms</i>										
DIABLO DR	WOODFORES T DR	LANCELOT DR	1	25	4,770	0	Foothill Oaks Ele	2	Pedestrian signal exists	NA
HEMLOCK ST	OVERBROOK WAY	KEYSTONE AVE	0	35	2,939	0	Single-family residential	2	No recommended projects	NA
MYRTLE AVE	ROYAL VILLA DR	COLLEGE OAK DR	0	35	7,806	1	American Rvr Jnr College	2	Raised crosswalk; curb extensions (2), lighting (2)	\$80,000
WALNUT AVE	COSTA WAY	MODOC WAY	0	40	8,000	1	Pioneer Ele	2	Raised crosswalk; curb extensions (2), lighting (2)	\$80,000
WATT AVE (NEW)	E ST	DON JULIO BLVD	1	40	50,404	2	Shopping on both sides; over 1,000 ft betw XINGs	6	Pedestrian signal; curb extensions (2); lighting (2); pavement markings	\$225,000
<i>North Highlands/Foothill Farms Total</i>										\$385,000
<i>Orangevale</i>										
BEECH AVE	NICKENS CT	OAK AVE	1	25	8,000	0	Oakview Ele	2	No recommended projects	NA
BEECH AVE	NIMBUS WAY	KONA WAY	0	25	8,000	0	Andrew Carnegie JHS	2	No recommended projects	NA
CENTRAL AVE	FILBERT AVE	CHESTNUT AVE	0	25	3,515	0	Orangevale Ele, church	2	No recommended projects	NA
FAIR OAKS BLVD	ORANGE AVE	WINDING WAY	0	25	9,500	0	Fair Oaks Ele School	2	Pedestrian signal exists; No recommended projects	NA
FAIR OAKS BLVD	WOODMORE OAKS DR	DART WAY	1	45	15,401	0	Church, single family	4	Pedestrian signal; curb extensions (2), lighting (2)	\$208,000

Street Name	Cross St 1	Cross St 2	Bus Rte	Speed	ADT	Colli- sions ¹	Land Use	Lanes	Project Description	Cost Est.
FILBERT AVE	TAPPER LN	NEUBERGER LN	0	30	1,600	2	Green Oaks Ele	2	Raised crosswalk, curb extensions (2), double fine zone signs	\$71,000
GORDIAN WY	TRAJAN DR	WOODMORE DR	0	25	4,000	0	Trajan Ele	2	None	NA
GREENBACK LN (NEW)	WALNUT AVE	MAIN AVE	1	45	21,721	3	Shopping on both sides; over 1,000 ft betw XINGs	4	Pedestrian signal; curb extensions (2); pavement markings	\$213,000
TWIN LAKES AVE	MAIN AVE	WALNUT AVE	0	25	8,000	0	Twin Lakes Ele	2	No recommended projects	NA
Orangevale Total										\$492,000
Midblock Crossing CIP Project Total										\$1,919,000

¹ Note that collision severity was determined using the California Department of Motor Vehicle's method of human capital costs with three as the highest severity value: www.dmv.ca.gov/about/profile/rd/resnotes/accident.htm

Pedestrian Countdown Signal Installations

Description: Pedestrian countdown signals are recommended for installation in conjunction with accessible pedestrian signals and signal timing extensions at intersections with existing signals. Pedestrian countdown signals are recommended when pedestrians must cross signalized intersections with five or more lanes. A list of 116 potential intersections is shown in Table 26. This list recommends installing a total of 680 pedestrian countdown signals, which averages almost six countdown signal heads per intersection.

Order-of-Magnitude Cost: \$1,020,000 (CIP). No projects are recommended for the PMP. Assumes \$1,500 cost for each pedestrian countdown installation; either four or eight pedestrian countdowns are recommended for each designated intersection.

Table 26: Pedestrian Countdown Signal Pedestrian CIP Projects

North/South St	East/West St	North/ South	East/ West	Total #	Total Cost
<i>Antelope</i>					
Watt Ave	Elverta Rd	0	4	4	\$6,000
Antelope Total		0	4	4	\$6,000
<i>Antelope / North Highlands / Foothill Farms</i>					
Watt Ave	Antelope Rd	4	4	8	\$12,000
Antelope / North Highlands / Foothill Farms Total		4	4	8	\$12,000
<i>Arden Arcade</i>					
Eastern Ave	Cottage Way	4	0	4	\$6,000
Eastern Ave	Whitney Ave	4	0	4	\$6,000
Eastern Ave	El Camino Ave	4	4	8	\$12,000
Eastern Ave	Engle Rd	4	4	8	\$12,000
Eastern Ave	Marconi Ave	4	4	8	\$12,000
Fulton Ave	Alta-Arden Way	4	4	8	\$12,000
Fulton Ave	Arden Way	4	4	8	\$12,000
Fulton Ave	Auburn Blvd	4	4	8	\$12,000
Fulton Ave	Cottage Way	4	0	4	\$6,000
Fulton Ave	Edison Ave	4	0	4	\$6,000
Fulton Ave	El Camino Ave	4	4	8	\$12,000
Fulton Ave	Marconi Ave	4	4	8	\$12,000
Fulton Ave	Northrup Ave	4	0	4	\$6,000
Fulton Ave	Sierra Blvd	4	0	4	\$6,000
Howe Ave	Alta Arden Expwy	4	4	8	\$12,000
Howe Ave	Cottage Way	4	0	4	\$6,000
Howe Ave	Arden Way	4	4	8	\$12,000

North/South St	East/West St	North/ South	East/ West	Total #	Total Cost
Howe Ave	El Camino Ave	4	4	8	\$12,000
Howe Ave	Hurley Way	4	4	8	\$12,000
Howe Ave	Marconi Ave	4	4	8	\$12,000
Lake Oak Ct	Fair Oaks Blvd	0	4	4	\$6,000
Morse Ave	Arden Way	0	4	4	\$6,000
Morse Ave	Alta Arden Expwy	4	4	8	\$12,000
Munroe St	Fair Oaks Blvd	0	4	4	\$6,000
Watt Ave	Kings Way	4	0	4	\$6,000
Watt Ave	Alta-Arden Wy	4	4	8	\$12,000
Watt Ave	Arden Way	4	4	8	\$12,000
Watt Ave	Auburn Blvd	4	4	8	\$12,000
Watt Ave	Edison Ave	4	0	4	\$6,000
Watt Ave	El Camino Ave	4	4	8	\$12,000
Watt Ave	Fair Oaks Blvd	4	4	8	\$12,000
Watt Ave	Marconi Ave	4	4	8	\$12,000
Watt Ave	Northrop Ave	4	0	4	\$6,000
Watt Ave	San Ysidro Wy	4	0	4	\$6,000
Watt Ave	Whitney Ave	4	0	4	\$6,000
Wilhaggin Dr	Fair Oaks Blvd	0	4	4	\$6,000
Arden Total		128	96	224	\$336,000
<i>Carmichael</i>					
Fair Oaks Blvd	Jacob Ln	4	0	4	\$6,000
Fair Oaks Blvd	Engle Rd	4	0	4	\$6,000
Fair Oaks Blvd	Grant Ave	4	0	4	\$6,000
Fair Oaks Blvd	Marconi Ave	4	4	8	\$12,000
Fair Oaks Blvd	Stanley Ave	4	0	4	\$6,000
Garfield Ave	El Camino Ave	4	4	8	\$12,000
Garfield Ave	Marconi Ave	4	4	8	\$12,000
Garfield Ave	Winding Way	4	0	4	\$6,000
Hackberry Ln	Madison Ave	0	4	4	\$6,000
Manzanita Ave	Fair Oaks Blvd	4	4	8	\$12,000
Walnut Ave	El Camino Ave	0	4	4	\$6,000
Walnut Ave	Marconi Ave	0	4	4	\$6,000
Carmichael Total		36	28	64	\$96,000
<i>Carmichael / Fair Oaks</i>					
San Juan Ave	Sunset Ave	4	0	4	\$6,000
Carmichael / Fair Oaks Total		4	0	4	\$6,000
<i>Carmichael / North Highlands / Foothill Farms</i>					
Garfield Ave	Madison Ave	4	4	8	\$12,000
Carmichael / North Highlands / Foothill Farms Total		4	4	8	\$12,000

North/South St	East/West St	North/ South	East/ West	Total #	Total Cost
<i>Fair Oaks</i>					
California St	Fair Oaks Blvd	0	4	4	\$6,000
Fair Oaks Blvd	Madison Ave	4	4	8	\$12,000
Fair Oaks Blvd	Sunset Ave	4	0	4	\$6,000
Hazel Ave	Curragh Downs	4	0	4	\$6,000
Hazel Ave	La Serena Dr	4	0	4	\$6,000
Hazel Ave	Madison Ave	4	4	8	\$12,000
Hazel Ave	Phoenix Ave	4	0	4	\$6,000
Hazel Ave	Sunset Ave		0	4	\$6,000
Hazel Ave	Winding Way	4	0	4	\$6,000
Illinois Ave	Madison Ave	0	4	4	\$6,000
Kenneth Ave	Madison Ave	0	4	4	\$6,000
Sunrise Blvd	Madison Ave	4	4	8	\$12,000
Fair Oaks Total		36	24	60	\$90,000
<i>Fair Oaks / Orangevale</i>					
Fair Oaks Blvd	Greenback Ln	4	4	8	\$12,000
Kenneth Ave	Greenback Ln	4	4	8	\$12,000
Fair Oaks / Orangevale Total		8	8	16	\$24,000
<i>North Highlands / Foothill Farms</i>					
Andrea Blvd	Elkhorn Blvd	0	4	4	\$6,000
Auburn Blvd	Manzanita Ave	4	4	8	\$12,000
Auburn Blvd	Myrtle Ave	4	0	4	\$6,000
Auburn Blvd	Orange Grove Ave.	4	0	4	\$6,000
Cantel Way	Elkhorn Blvd	0	4	4	\$6,000
Diablo Dr	Elkhorn Blvd	0	4	4	\$6,000
Don Julio Blvd	Elkhorn Blvd	4	4	8	\$12,000
Don Julio Blvd	Antelope Rd	4	4	8	\$12,000
Garfield Ave	Greenback Ln	4	4	8	\$12,000
Greenback Ln	I 80	4	4	8	\$12,000
Hillsdale Blvd	Elkhorn Blvd	0	4	4	\$6,000
Thomas Dr	Elkhorn Blvd	0	4	4	\$6,000
Walerga Rd	Keema Ave	4	0	4	\$6,000
Walerga Rd	Elkhorn Blvd	4	4	8	\$12,000
Watt Ave	I-80 ramps	4	4	8	\$12,000
Watt Ave	Palm St	4	0	4	\$6,000
Watt Ave	Roseville Rd	4	4	8	\$12,000
Watt Ave	Air Base Dr	4	0	4	\$6,000
Watt Ave	Bolivar St / I St	4	0	4	\$6,000
Watt Ave	Don Julio Blvd	4	4	8	\$12,000
Watt Ave	Elkhorn Blvd	4	4	8	\$12,000
Watt Ave	Myrtle Ave	4	0	4	\$6,000
Watt Ave	Van Owen St	4	0	4	\$6,000
N. Highlands / Foothill Farms Total		72	60	132	\$198,000

North/South St	East/West St	North/ South	East/ West	Total #	Total Cost
<i>Orangevale</i>					
Greenback Ln	Madison Ave	4	4	8	\$12,000
Hazel Ave	Cherry Ave	4	0	4	\$6,000
Hazel Ave	Greenback Ln	4	4	8	\$12,000
Hazel Ave	Oak Ave	4	0	4	\$6,000
Hickory Ave	Greenback Ln	0	4	4	\$6,000
Lake Natoma Dr	Madison Ave	0	4	4	\$6,000
Pershing Ave	Madison Ave	0	4	4	\$6,000
Orangevale Total		16	20	36	\$54,000
<i>Rio Linda / Elverta</i>					
Rio Linda Blvd	Elkhorn Blvd	0	4	4	\$6,000
Rio Linda Blvd	Elverta Rd	4	0	4	\$6,000
Rio Linda / Elverta Total		4	4	8	\$12,000
<i>South Sacramento</i>					
47th Ave	Steiner Dr	4	0	4	\$6,000
65th Expwy	Florin Rd	4	4	8	\$12,000
Briggs Dr	Florin Rd	0	4	4	\$6,000
East Parkway	Florin Rd	0	4	4	\$6,000
Elk Grove-Florin	Florin Rd	4	4	8	\$12,000
Elk Grove-Florin	Gerber Rd	4	4	8	\$12,000
Florin Mall Dr	Florin Rd	0	4	4	\$6,000
Florin Perkins	Florin Rd	4	4	8	\$12,000
Franklin Blvd	47th Ave	4	4	8	\$12,000
Franklin Blvd	Florin Rd	4	4	8	\$12,000
Power Inn Rd	Florin Rd	4	4	8	\$12,000
Power Inn Rd	Gerber Rd	4	4	8	\$12,000
Power Inn Rd	Stevenson Ave	4	0	4	\$6,000
Sky Pkwy	65th Expwy	0	4	4	\$6,000
Stockton Blvd	65th Expwy	4	4	8	\$12,000
Stockton Blvd	Florin Rd	4	4	8	\$12,000
Stockton Blvd	Gerber Rd	4	4	8	\$12,000
South Sacramento Total		52	60	112	\$168,000
<i>South Sacramento / Vineyard</i>					
S. Watt Ave	Fruitridge Rd	4	0	4	\$6,000
South Sacramento/Vineyard Total		4	0	4	\$6,000
Total	116 intersections	368	312	680	\$1,020,000

Signal Timing

Description: Pedestrians find it easier to cross streets when cycle lengths of signals are shorter and the WALK intervals are longer. Older individuals and children tend to require more time crossing streets. Thus, it is recommended to extend pedestrian crossing times on streets that are adjacent to elementary and special education schools and facilities that cater to older individuals. The study team also considered consumer requests for more time to cross specific intersections.

Table 27 shows the recommended Pedestrian CIP signal timing project locations. The table only includes streets with five or more lanes, unless a resident requests a longer walk interval on a street with fewer lanes. Note that the study team recommends these signalized intersections to have pedestrian signal countdown heads installed. Thus, SacDOT could coordinate the installation of pedestrian countdown signals and improved signal timing to save money and time. Long-term signal timing projects will be scheduled by request.

Sacramento County, like most jurisdictions, uses fixed-time systems for cycle lengths. Pedestrians activate a pedestrian push button to trigger a walk cycle. New technologies using infrared, microwave or video sensors are being used in some U.S. cities to detect pedestrians. These devices also extend pedestrian intervals for slower pedestrians. Cities that are experimenting with these new technologies include Petaluma and Los Angeles as well as Portland, Oregon and Phoenix, Arizona.¹⁰ These technologies could be considered in Sacramento County as they become more mainstream. The advantage of these new technologies is that they are able to adjust to pedestrian needs while limiting unnecessary time for the pedestrian cycle.

Order-of-Magnitude Cost: \$46,000 (CIP); \$100,000 (PMP). The estimated unit cost for changing signal timings equals \$1,000. The PMP projects are spread evenly between the 14 community areas.

¹⁰ Nazir Lalani & the ITE Pedestrian and Bicycle Task Force, *Alternative Treatments for At-Grade Pedestrian Crossings*, ITE, 2001.

Table 27: Signal Timing CIP Projects

Street Name	Cross Street	Senior Centers / Elementary Schools ¹	Public Request	Collision Severity ²	Cost Est
<i>Arden Arcade</i>					
Eastern Ave	Whitney Ave	Public ele, elderly care			\$1,000
Eastern Ave	El Camino Ave	Adult resi, elderly care		2	\$1,000
Eastern Ave	Engle Rd	Elderly care (2), adult resi, private school			\$1,000
Eastern Ave	Marconi Ave	Elderly care (2)		2	\$1,000
Fulton Ave	Cottage Way	Private School			\$1,000
Fulton Ave	Marconi Ave		1	2	\$1,000
Howe Ave	Arden Way		2	2	\$1,000
Howe Ave	Cottage Way	Elderly care		1	\$1,000
Howe Ave	El Camino Ave	Public school		1	\$1,000
Howe Ave	Hurley Way	Hospital, adult resi, public school		1	\$1,000
Marconi Ave	Town & Country Village		1		\$1,000
Marconi Ave	Bell St		1		\$1,000
Morse Ave	Alta Arden Way	Adult resi, elderly care, hospital, private school			\$1,000
Watt Ave	Auburn Blvd	Public ele		1	\$1,000
Watt Ave	Edison Ave	Elderly care		2	\$1,000
Watt Ave	El Camino		2	2	\$1,000
Watt Ave	Alta Arden Way	Elderly care (2)			\$1,000
Watt Ave	Kentfield		1		\$1,000
Watt Ave	Kings Way	Elderly care		1	\$1,000
Watt Ave	Marconi Ave	Private school		2	\$1,000
Arden Arcade Total					\$20,000
<i>Carmichael</i>					
Auburn Blvd	Garfield Ave		1		\$1,000
Fair Oaks Blvd	Stanley Ave	Public ele			\$1,000
Fair Oaks Blvd	Sutter Ave		1		\$1,000
Garfield Ave	El Camino Ave	Elderly care			\$1,000
Garfield Ave	Marconi Ave	Private school			\$1,000
Garfield Ave	Winding Way	Private school			\$1,000
Carmichael Total					\$6,000
<i>Carmichael / North Highlands / Foothill Farms</i>					
Garfield Ave	Madison Ave	Special ed		1	\$1,000
Carmichael / North Highlands / Foothill Farms Total					\$1,000
<i>Fair Oaks</i>					
Fair Oaks Blvd	Madison Ave	Hospital, adult day care		1	\$1,000
Fair Oaks Blvd	Sunset Ave	Elderly care		1	\$1,000

Table 27: Signal Timing CIP Projects

Street Name	Cross Street	Senior Centers / Elementary Schools¹	Public Request	Collision Severity²	Cost Est
Hazel Ave	Sunset Ave	Elderly care			\$1,000
Hazel Ave	Winding Way		1		\$1,000
Illinois Ave	Madison Ave	Public ele school			\$1,000
Sunrise Blvd	Fair Oaks Blvd		1		\$1,000
Winding Way	Sunrise Blvd		1		\$1,000
Fair Oaks Total					\$7,000
<i>North Highlands / Foothill Farms</i>					
Elkhorn Blvd	Andrea Blvd	Adult resi		2	\$1,000
Elkhorn Blvd	Diablo Dr	Public school, Elderly care		1	\$1,000
Walerga Rd	Keema Ave	Public school			\$1,000
Watt Ave	Don Julio Blvd	Public school, Senior nutrition			\$1,000
North Highlands/ Foothill Farms Total					\$4,000
<i>Rio Linda / Elverta</i>					
Rio Linda Blvd	Elverta Rd	Public school			\$1,000
Rio Linda / Elverta Total					\$1,000
<i>South Sacramento</i>					
Florin Rd	Bowling Dr		1		\$1,000
Florin Rd	Briggs Dr	Public school		2	\$1,000
Florin Rd	Stockton Blvd		1		\$1,000
Franklin Blvd	Florin Rd	Adult day health cares, public school		2	\$1,000
Sky Pkwy	65 th St		1		\$1,000
Steiner Dr	47 th Ave	Private school (K-12)		1	\$1,000
Stockton Blvd	65 th St		1		\$1,000
South Sacramento Total					\$7,000
Total					\$46,000

¹ The land uses that were included in the analysis are as follows: Public and private elementary schools, adult residential, adult day care, adult day health cares, hospitals, general acute care hospital, residential care facilities for elderly, senior nutrition, skilled nursing facilities and special hospitals.

² Note that collision severity was determined using the California Department of Motor Vehicle's method of human capital costs with three as the highest severity value:
www.dmv.ca.gov/about/profile/rd/resnotes/accident.htm

Lighting

Description: The recommended locations for lighting improvements originate from two sources: collision data and public input:

Collision Data: The California Highway Patrol’s Statewide Integrated Traffic Records System (SWITRS) database was used to show severe or fatal pedestrian collisions between 1996 and 2001 that occurred in the dark without streetlights.

Public Input: About 40 consumer survey respondents out of over 200 marked lighting as an issue at specific locations. Several schools also indicated lighting was an issue at roads leading to or from particular school sites.

Table 28 lists the highest priority lighting improvement locations. Only the “high” and “medium” priority locations are recommended to be funded in the Pedestrian CIP. The “high” locations have both severe or fatal pedestrian collisions and a public inquiry via the consumer survey. The medium priority locations have had pedestrian-involved collisions in the dark where streetlights do not exist, or are adjacent to school sites for which additional lighting was requested. The low-priority locations have only general public input.

The table provides an order-of-magnitude cost estimate for the lighting improvements. The cost estimate assumes that one streetlight is needed at each location if lighting already is located on the street. Two streetlights are assumed if no or limited lighting exists. It is expected that some locations only may need an adjustment of existing streetlights. The installation of pedestrian-scaled lighting is recommended where appropriate.

Order-of-Magnitude Cost: \$400,000 (CIP); \$880,000 (PMP).

Table 28: Lighting Projects

Locations	Collisions	Public Input	Priority	Cost Est.
<i>Antelope</i>				
Elverta Rd at Black Eagle		1	Low	\$5,000
Elverta Rd at Pinefield Dr		1	Low	\$5,000
<i>Antelope Total - CIP</i>				\$0
<i>Antelope Total – PMP</i>				\$10,000
<i>Arden Arcade</i>				
Fulton Ave at Hurley Way	1	1	High	\$5,000
Howe Ave at Whippoorwill Ln	1	1	High	\$5,000
Landis Ave at Monteglen Ct	1	1	High	\$10,000
Marconi Ave at Bell St	1	1	High	\$5,000
Marconi Ave at Wright St	1	1	High	\$5,000
Edison Ave at Ball Way (west)	1		Medium	\$10,000
Fulton Ave at Maison Way	1		Medium	\$5,000
Fulton Ave at Wittkop Way	1		Medium	\$10,000
Watt Ave at Winding Creek Rd	1		Low	\$5,000
Arden Way (Eastern Ave to Mission Ave) – 13 lights recommended		1	Low	\$65,000
Barrington Rd at Watt Ave		1	Low	\$5,000
Bell St – 24 lights recommended		1	Low	\$120,000
Hurley Way at Howe Ave		1	Low	\$5,000
Marconi Ave at Walnut Ave	1		Low	\$5,000
Morse Ave at Hurley Way		1	Low	\$5,000
San Ysidro at Buena Vista		1	Low	\$10,000
Watt Ave at El Camino		1	Low	\$5,000
Watt Ave at Kentfield		1	Low	\$5,000
<i>Arden Arcade Total - CIP</i>				\$55,000
<i>Arden Arcade Total – PMP</i>				\$230,000
<i>Carmichael</i>				
California Ave at Palm Dr		2	Medium	\$5,000
Fair Oaks Blvd at Alex Lane/Bryan Way	1		Medium	\$5,000
Fair Oaks Blvd at Claremont Rd	1		Medium	\$5,000
Fair Oaks Blvd at Wayside Ln	1		Medium	\$10,000
Arden Way (Fair Oaks Blvd to Mission Ave) – 6 lights recommended		1	Low	\$30,000
California Ave – 12 lights recommended		1	Low	\$60,000
Fair Oaks Blvd at Grant Ave		1	Low	\$5,000

Locations	Collisions	Public Input	Priority	Cost Est.
Fair Oaks Blvd at North Ave		1	Low	\$5,000
Fair Oaks Blvd at Sutter Ave		1	Low	\$5,000
Garfield Ave (Marconi Ave to Winding Way) – 30 lights recommended		1	Low	\$150,000
Lincoln Ave at California Ave		1	Low	\$5,000
North Ave (Fair Oaks Blvd to Walnut Ave) – 22 lights recommended		1	Low	\$110,000
North Ave (Mission Ave & Walnut Ave) – 16 lights recommended		1	Low	\$80,000
Palm Dr at Panama Ave		1	Low	\$5,000
Stanley Ave at California		1	Low	\$5,000
<i>Carmichael Total - CIP</i>				\$25,000
<i>Carmichael Total – PMP</i>				\$460,000
<i>Carmichael / Fair Oaks</i>				
San Juan Ave at Heather Rd	1		Medium	\$5,000
<i>Carmichael / Fair Oaks Total - CIP</i>				\$5,000
<i>Carmichael / Fair Oaks Total – PMP</i>				\$0
<i>Cosumnes</i>				
Dillard Rd at Wilton Rd		1	Low	\$10,000
<i>Cosumnes Total - CIP</i>				\$0
<i>Cosumnes Total – PMP</i>				\$10,000
<i>Fair Oaks</i>				
Fair Oaks Blvd at Woodleaf Dr	1		Medium	\$5,000
Sunset Ave at Star Rd	1		Medium	\$5,000
Fair Oaks Blvd at Shangrila		1	Low	\$10,000
<i>Fair Oaks Total - CIP</i>				\$10,000
<i>Fair Oaks Total – PMP</i>				\$10,000
<i>Franklin Laguna</i>				
Twin Cities Rd at Bruceville Rd	1		Medium	\$5,000
<i>Franklin Laguna Total - CIP</i>				\$5,000
<i>Franklin Laguna Total – PMP</i>				\$0
<i>North Highlands / Foothill Farms</i>				
20 th St (I St to school entrance) – 3 lights recommended		1	High	\$15,000
I St (20 th St to school entrance) – 3 lights recommended		1	High	\$15,000
Northhaven Dr at Lura	1		Medium	\$5,000
Roseville Rd at Oakhollow Dr	1		Medium	\$10,000
Roseville Rd at Palm Ave/A St	1		Medium	\$10,000

Locations	Collisions	Public Input	Priority	Cost Est.
Watt Ave at Quinn Way	1		Medium	\$5,000
Watt Ave at I 80	1		Medium	\$5,000
Auburn Blvd at Garfield Ave		1	Low	\$5,000
Hillsdale Blvd at Tresler Ave		1	Low	\$5,000
<i>North Highlands / Foothill Farms Total - CIP</i>				\$65,000
<i>North Highlands / Foothill Farms Total – PMP</i>				\$10,000
<i>Orangevale</i>				
Chestnut Ave at Rock Canyon Way	1		Medium	\$10,000
Greenback Lane at Beech Ave	1		Medium	\$5,000
Greenback Lane at Walnut Ave	1		Medium	\$5,000
<i>Orangevale Total - CIP</i>				\$20,000
<i>Orangevale Total – PMP</i>				\$0
<i>Rio Linda / Elverta</i>				
M St (Rio Linda Blvd to 8 th) – 8 lights recommended		1	High	\$40,000
10 th St (G St to Elkhorn Blvd) – 3 lights recommended		1	High	\$15,000
L St (6 th St to 7 th St) – 3 lights recommended		1	High	\$15,000
G St (Dry Creek Rd to School) – 3 lights recommended		1	High	\$15,000
Q St (10 th to Dry Creek Rd) – 4 lights recommended		1	High	\$20,000
Rio Linda Blvd (Marysville to Elkhorn Blvd) – 5 lights recommended		1	High	\$25,000
W 2 nd (Cherri Lynn Ave to Bolin Way) – 4 lights recommended		1	High	\$20,000
Dry Creek Road (G St to Elkhorn Blvd) – 4 lights recommended		1	High	\$20,000
Dry Creek Road at C St	1	1	High	\$5,000
E St at Dry Creek Rd	1		Medium	\$5,000
8th St at U St		2	Medium	\$5,000
6th St at M St		1	Low	\$5,000
6th St at N St		1	Low	\$5,000
8th St at Q St		1	Low	\$5,000
Elverta Rd at 9th St		1	Low	\$5,000
Palladay Rd at Elverta Rd		1	Low	\$5,000
Rio Linda Blvd – 16 lights recommended		1	Low	\$80,000
U St at 9th		1	Low	\$5,000
<i>Rio Linda / Elverta Total - CIP</i>				\$185,000
<i>Rio Linda / Elverta Total – PMP</i>				\$110,000

Locations	Collisions	Public Input	Priority	Cost Est.
<i>South Sacramento</i>				
Florin Rd at Rimrock Dr	1	1	High	\$5,000
Florin Rd at Strand St	1	1	High	\$5,000
47th Ave at Vista Ave	1		Medium	\$5,000
Gaddi Dr at 34th Ave	1		Medium	\$5,000
Martin Luther King Jr Blvd at 45th Ave	1		Medium	\$5,000
Briggs Dr at Florin Rd		1	Low	\$5,000
Briggs Dr at Lawnwood Dr		1	Low	\$10,000
Chris Ave at Florin Rd		1	Low	\$5,000
Clover Manor Way at 37th Ave		1	Low	\$5,000
Elk-Grove Florin Rd at Gerber Rd		1	Low	\$5,000
Florin Rd at Bowling Dr		1	Low	\$5,000
Stockton Blvd at Massie C		1	Low	\$5,000
<i>South Sacramento Total - CIP</i>				\$25,000
<i>South Sacramento Total – PMP</i>				\$40,000
<i>Vineyard</i>				
Bradshaw Rd at Rogers Rd	1		Medium	\$5,000
<i>Vineyard Total - CIP</i>				\$5,000
<i>Vineyard Total – PMP</i>				\$0
TOTAL				\$1,280,000
Total – CIP				\$400,000
Total – PMP				\$880,000

Trail Access

Description: Trails are a major generator of pedestrian demand, yet are not usually under the jurisdiction of SacDOT. Thus, SacDOT is mainly concerned about safe street crossings where trails intersect with streets. Street crossing features could include striping treatments, raised crosswalks, flashing beacons or pedestrian signals (Table 29). Like all improved street crossings, they must comply with the County's ADA codes and standards.

Order-of-Magnitude Cost: \$1,523,000 (CIP); \$1,106,000 (PMP)

Table 29: Trail Access Projects

Street	Street Crossing	Project	Priority	Cost Est.
<i>Arcade Creek Park (Carmichael)</i>				
Garfield Ave	Arcade Creek Nature Area to Arcade Creek Park	Midblock crossing with pedestrian signal (\$158,400), curb extensions (\$40,000), lighting (\$10,000), ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$221,000
Garfield Ave	Winding Way to Madison	Curb/gutter/sidewalk installation (2,300 feet)	Pedestrian CIP	\$424,000
Arcade Creek Park - CIP Total				\$645,000
<i>American River Parkway (Arden Arcade)</i>				
		Wayfinding signage between Arden Arcade and American River Parkway	Pedestrian CIP	\$424,000
American River Parkway - CIP Total				\$424,000
<i>Dry Creek Parkway (Rio Linda / Elverta)</i>				
Elverta Rd		Midblock crossing under bridge or at grade	Pedestrian CIP (in design stage)	Component of the Dry Creek bridge project at Elverta Rd.
Q St		Two midblock crossings (one for equestrians and one for bikes/peds): pedestrian signal (\$316,800), curb extensions (\$80,000), lighting (\$20,000), ladder-type pavement markings (\$24,000), signage (\$2,000)	Long term - PMP	\$443,000
Dry Creek Rd		Midblock crossing with pedestrian signal (\$158,400), curb extensions (\$40,000), lighting (\$10,000), ladder-type pavement markings (\$12,000), signage (\$1,000)	Long term - PMP	\$221,000

Table 29: Trail Access Projects

Street	Street Crossing	Project	Priority	Cost Est.
Rio Linda Blvd		Midblock crossing with pedestrian signal (\$158,400), curb extensions (\$40,000), lighting (\$10,000), ladder-type pavement markings (\$12,000), signage (\$1,000)	Long term - PMP	\$221,000
Dry Creek Parkway – PMP Total				\$885,000
<i>Laguna Creek Interceptor (Vineyard)</i>				
Calvine Rd		Midblock crossing with pedestrian signal (\$158,400), curb extensions (\$40,000), lighting (\$10,000), ladder-type pavement markings (\$12,000), signage (\$1,000)	Long term - PMP	\$221,000
Laguna Creek Interceptor – PMP Total				\$221,000
<i>Laguna Creek Parkway – Southgate Park District (Vineyard)</i>				
Vineyard Rd	South side of Laguna Creek	Midblock crossing with pedestrian signal (\$158,400); Share-the-road signage for equestrians/bikes/peds (\$1,000)	Pedestrian CIP	\$159,000
Laguna Creek Parkway – CIP Total				\$159,000
<i>Sunrise Park District (Antelope/North Highlands/Foothill Farms)</i>				
Diablo Dr	Bell Hill Dr and Forestwood Dr (two parks are split by a street)	Midblock crossing with raised crosswalk (\$30,240), curb extensions (\$40,000), lighting (\$10,000), ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$93,000
Sunrise Park District – CIP Total				\$93,000
<i>Tillotson Parkway (Vineyard)</i>				
Pixley Way	North of Meadowhaven Dr (at park and fire station)	Midblock crossing with ladder-type pavement markings (\$12,000), lighting (\$10,000), signage (\$1,000); Pixley Way ladder-type pavement markings (\$12,000)	Pedestrian CIP	\$35,000
Auberry Dr	Trimmer Way and Triad Cir	Ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$13,000
Spengler Dr	Trimmer Way and Matisse	Ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$13,000
Vintage Park Dr	North of Bedford Cove Way	Midblock crossing with ladder-type pavement markings (\$12,000), lighting (\$10,000), signage (\$1,000)	Pedestrian CIP	\$23,000
Kentshire Way	South of Brittany Park	Ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$13,000
Stone Cliff Way	South of Brittany Park	Ladder-type pavement markings (\$12,000), signage (\$1,000)	Pedestrian CIP	\$13,000

Table 29: Trail Access Projects

Street	Street Crossing	Project	Priority	Cost Est.
Caymus Dr	South of Brittany Park Dr (at park)	Midblock crossing with ladder-type pavement markings (\$12,000), lighting (\$10,000), signage (\$1,000)	Pedestrian CIP	\$23,000
Waterman Rd	Westray Dr (at proposed park)	Marked crossing – ladder type (\$15,360) assuming 64 foot street; signage (\$1,000)	Pedestrian CIP (high priority)	\$16,000
Kingsbridge Dr	South of Boscastle Way (north of high school and middle school)	Midblock crossing with raised crosswalk (\$30,240), ladder-type pavement markings (\$12,000), lighting (\$10,000), signage (\$1,000)	Pedestrian CIP (high priority)	\$53,000
Tillotson Parkway - CIP Total				\$202,000
Total Trail Projects				\$2,629,000
CIP Trail Projects Total				\$1,523,000
PMP Trail Projects Total				\$1,106,000

Pathways

Pathways consist of pedestrian walkways between homes, and pedestrian overcrossings of streets and waterways that are under the jurisdiction of SacDOT.

Project #1: Pathway Upgrades

Description: SacDOT maintains pedestrian pathways that provide access in residential developments and that cross major thoroughfares. The pathways mainly access schools, and some may be on school property. Pathway improvements could include graffiti removal, pedestrian-scaled lighting, landscaping, ADA compliance, improved surfaces, wayfinding signs, fencing and callboxes. The projects will entail a field check of each pathway. The most cost effective and high priority improvements then will be funded. Major existing pathway facilities are shown in Table 30 by community area.

Order-of-Magnitude Cost: \$480,000 (CIP). Assumes that each pathway will be funded an average of \$10,000 for pedestrian improvements. Since the majority of the pathways access schools, SacDOT could submit a pathway improvement project to the Safe Routes to School funding source. No long-term pathway projects are recommended for the PMP.

Table 30: Pathways by Community Area

Street (Address)	Adjacent Land Use Description
Arden Arcade	
Burlewood Ct (3415/3421)	Cowan Public Ele
Clairidge Way (3221/3227)	Cowan Public Ele
Cresta Way (4012/4016)	Mariemont Public Ele
Meadowbrook Rd (2212)	Cottage Public Ele
Nottingham Cr (4640/4644)	Billy Mitchell Public Ele
Oxbow Dr (4556/4560)	El Camino Public HS
Ralston Rd (2252/2256)	Fulton El Camino Park Dist
Rio Tinto Ave (4345/4401)	Pasadena Ave Public Ele
Townsend Ct (2695)	Sierra Oaks Public Ele
Vulcan Dr (4340/4344)	Shopping center
Arden Arcade Total	\$100,000
Carmichael	
Ellsworth Cir (6960/6964)	Winding Way
Ellsworth Cir / Rockland Wy	Between streets
Kettering Cir (6832)	Will Rogers Public JHS
Linda Sue Way (6833/6837)	Leighton Littlejohn Public Ele

Table 30: Pathways by Community Area

Street (Address)	Adjacent Land Use Description
Mission Ave (2000/1910)	Starr King Public Ele/JHS
Moraga Dr (6345)	Will Rogers Public JHS
Papaya Dr (4749/4753)	Will Rogers Public JHS
Papaya Dr (4900/4904)	Harry Dewey Public Ele
Perrin Way (6441/6445)	Winding Way
Rockland Way (4924/4928)	Harry Dewey Public Ele
San Marque Cir (4976/4980)	Starr King Public Ele/JHS
Sunglow Ct (6037/6041)	Mary C Deterding Public Ele
Will Rogers Dr (6752/6756)	Will Rogers Public JHS
Winding Way & College Oak Dr	Residential area
Carmichael Total	\$140,000
<i>Fair Oaks</i>	
Illinois Ave north of Sunset Ave	Residential area
Lake Nimbus Dr to Curragh Downs	Residential area
Montcurve Blvd (4501/4505)	John Holst Public Ele
Winding Way west of Chicago	Residential area
Fair Oaks Total	\$40,000
<i>North Highlands / Foothill Farms</i>	
Alan Dr (4204/4210)	Allison Public Ele
Bainbridge Dr (3842/3848)	Oliver Wendell Holmes Ele
Elkhorn Blvd / Greenback Ln	I-80 overpass
La Cienega Dr (6421/6425)	Larchmont Public Ele
Medora Dr (6748/6752)	Village Public Ele
Pasadena Ave (n of Winding)	Creek XING
Poplar Blvd / Watt Ave	Watt Ave overpass
Roseville Rd / Watt Ave	I-80 overpass
Rutherford Way (7321/7325)	Sierra View Public Ele / apts
Stoneman Dr (6733/6801)	Village Public Ele / Thomas
Stoneman Dr (6736/6800)	Village Public Ele / Bismarck
Verner (5221) / Jeanine (6041)	I-80 overpass
Winding (west of Walnut Ave)	Los Rios Community College
N. Highlands / F. Farms Total	\$130,000
<i>Orangevale</i>	
Bullion(9500) / Shumway (9501)	Single-family residential area
Golden (9500) / Bullion (9501)	Single-family residential area
Margo Dr (6040)	Palisades Public Ele
Orangevale Total	\$30,000
<i>Rio Linda / Elverta</i>	
Dry Creek Rd (5845)	Commercial area
Rio Linda / Elverta Total	\$10,000

Table 30: Pathways by Community Area

Street (Address)	Adjacent Land Use Description	
<i>South Sacramento</i>		
44th Ave	SR 99 XING	
Chevy Chase (6857)	SR 99 XING	
Sky Pkwy / Candell Way	Canal XING	
South Sacramento Total		\$30,000
Total		\$480,000

Project #2: Alley Conversions to Pathways

Description: The County has considered converting existing alleys into pathways, pocket parks or short-distance multi-use paths. The alleys shown in Table 31 are considered candidates for conversion to multi-use paths.

Order-of-Magnitude Cost: \$600,000 (CIP). No long-term pathway projects are recommended for the PMP.

Table 31: Alley Conversions to Pathways

Alley	Description	Length	Cost
<i>Carmichael</i>			
San Juan Ave and Winding Way	Connects San Juan Ave and Winding Way northwest of the intersection	0.14 miles	\$100,000
<i>Franklin/Laguna</i>			
Daylor Way and Bearint Way	Runs through a subdivision between Bearint Way and Renwick Ave	0.30 miles	\$200,000
<i>North Highlands/Foothill Farms</i>			
Auburn Blvd and Madison Ave	Connects Auburn Blvd. and Madison Ave northeast of the intersection	0.14 miles	\$100,000
Myrtle Ave and Watt Ave	Connects Myrtle Ave and Watt Ave southeast of the intersection	0.17 miles	\$100,000
<i>Orangevale</i>			
Main Ave and Pershing Ave	Provides an alternative route between Main Ave and Pershing Ave southeast of the intersection	0.11 miles	\$100,000
Total		0.86 miles	\$600,000

Pedestrian District Projects

Description: The main purpose of Pedestrian Districts is to emphasize pedestrian needs along sections of road where pedestrian demand is or could be high, based on adjacent land uses and transit activity. Some of the treatments that could be used within Pedestrian Districts include:

- Bicycle lanes
- Sidewalk enhancements and curb extensions
- Longer pedestrian intervals at signalized intersections
- Midblock crossings (new and improved)
- On-street parking
- Lower speed limits to 30 miles per hour or lower
- Pedestrian-scaled lighting
- Road diets
- Street trees or bus shelters

An analysis of land uses and transit activity in unincorporated Sacramento County encouraged the identification of several road segments for which Pedestrian District treatments may be appropriate. In addition, Sacramento County's Planning and Community Development Department is in the process of updating its General Plan. Within this plan, a number of Targeted Commercial Corridors – areas having the greatest potential for reuse and infill – were identified as suitable for Pedestrian District treatments. All recommended Pedestrian Districts are noted on both CIP and PMP maps.

Order-of-Magnitude Cost: \$450,000 for a Pedestrian District Design Study (CIP) and \$4,500,000 for Pedestrian District Implementation Study (PMP).

Pedestrian District Planning and Design Study: Assumes that fifteen Pedestrian Districts will be studied for design work and community outreach at an average rate of \$30,000 per Pedestrian District.

Pedestrian District Implementation Study: The study team recommends an implementation study that would total \$4.5 million, which amounts to about \$300,000 per Pedestrian Districts that will be implemented.

Costs will vary depending on the number of intersections, the level of improvement being proposed, the detail of design, extent of community outreach needed and the number of stakeholders involved.

Pedestrian Programs

Pedestrian programs help ensure that pedestrian improvements will be implemented with sufficient staff training and public education. Recommended programs for the CIP are as follows:

- Training Program for County Staff on Pedestrian Design Guidelines and Pedestrian Policies (\$10,000)
- Pedestrian Facility Maintenance Program (\$50,000)
- Marketing Program (\$100,000)

The combined recommended costs for the CIP programs total \$160,000, and are recommended for funding in the first five years of the ten-year CIP.

These recommended programs reflect findings of the Pedestrian Summit Strategic Plan, sponsored by Sacramento Safe Communities. This strategic plan mentions the need for the following local educational programs:

- Instruct County transportation and planning staff as well as elected officials on pedestrian issues and pedestrian facility design
- Expand training to include the general public, developers and the business community
- Develop a media campaign on pedestrian safety issues and an alternative modes awareness campaign¹¹

Pedestrian Design Guidelines and Pedestrian Policies Training

Description: The study team recommends training mainly for SacDOT staff, and also for other key stakeholders (i.e., Sacramento County Planning Department staff, developers, Community Planning Area Council members and pedestrian advocates).

A one-half day class could cover the Pedestrian Design Guidelines and pedestrian policies that come out of the Pedestrian Master Plan process. The course could be taught by Jennifer Toole of Toole Design Group. A representative from SacDOT would be present to provide more details about SacDOT procedures.

¹¹ *Sacramento Safe Communities*, Pedestrian Summit Strategic Plan, October 2001.

The two SacDOT divisions targeted for this training are the Engineering and Planning division (budget unit 2611) at the downtown office and the Maintenance, Operations and Engineering division (budget unit 2613) at the Bradshaw office.

Courses could be offered at the downtown (906 G Street) and at the Bradshaw (4100 Traffic Way) offices to minimize travel by the participants. A training coordinator would set up the training classes, and would assist with internal costs.

The main items to budget for are instructor costs and employee time. SacDOT staff would need to determine the number of employees who should participate in the training.

Order-of-Magnitude Cost: \$10,000 (CIP); \$40,000 (PMP)

Pedestrian Facility Maintenance

Description: SacDOT is responsible for maintaining the pedestrian infrastructure in the public right-of-way including street crossings and the path of travel. The main items that need maintenance attention include pedestrian signal heads and push buttons, countdown signals, signage, sidewalks, crosswalks, landscaping and graffiti removal. This program would ensure that maintenance needs are met.

Order-of-Magnitude Cost: \$50,000 (CIP); \$200,000 (PMP)

Pedestrian Marketing

Description: SacDOT could encourage walking and educate motorists through a variety of media and events. The focus would be on motorist education until improved pedestrian facilities are in place. Another focus would be on educating road users on the new roadway devices such as countdown signals and accessible pedestrian signals.

Some promotional ideas include:

- Walk to School Day
- Walk to Work Week
- Pedestrian maps
- Walking guides with safety tips, walking routes, hotline numbers and pedestrian rules-of-the-road
- Neighborhood walks and clean-up days
- Public service announcements
- Paid media spots on television and radio

Order-of-Magnitude Cost: \$100,000 (CIP); \$300,000 (PMP).

Project and Program Summary

The projects and programs described above are grouped into two different categories: high priority and low priority. High priority projects are included in the Pedestrian CIP, which consists of the first ten years of the pedestrian program. Remaining projects are incorporated in the Pedestrian Master Plan (PMP).

Table 33 shows project cost summaries by community area for all of the projects recommended in the PMP. This table also reveals the combined total amount needed to complete recommended projects, which equals \$318 million. The Pedestrian CIP requires \$40 million in funding to implement the first ten years of the program. The programs total \$160,000 in the Pedestrian CIP, and \$540,000 in the Pedestrian Master Plan.

Figures 34 to 42 show all the projects that are recommended in both the CIP and the PMP.

Table 33: Entire Project Cost Summary by Community Area (\$000)

Community Area	Sidewalk	School	Transit	Midblock	Signal Countdown	Signal Timing	Lighting	Trail Access	Pathways	Districts	Total	Total %
Antelope	\$5,110		\$293	\$71	\$6	\$8	\$10				\$5,498	2%
Antelope / North Highlands / Foothill Farms	\$6,885				\$12			\$93			\$6,990	2%
Arden Arcade	\$42,209	\$2,675	\$619	\$546	\$336	\$27	\$285	\$424	\$100	\$900	\$48,121	15%
Carmichael	\$37,866	\$2,999	\$68	\$360	\$96	\$13	\$485	\$645	\$240	\$300	\$43,072	14%
Carmichael / Fair Oaks	\$747				\$6		\$5				\$758	0%
Carmichael / North Highlands / Foothill Farms	\$579				\$12	\$2					\$593	0%
Cosumnes	\$23,182			\$66		\$7	\$10				\$23,265	7%
Delta	\$2,771			\$66		\$7					\$2,844	1%
Fair Oaks	\$31,911	\$2,330	\$138	\$293	\$90	\$14	\$20		\$40	\$300	\$35,136	11%
Fair Oaks / Orangevale	\$1,727			\$108	\$24						\$1,859	1%
Franklin / Laguna	\$9,759			\$66		\$7	\$5		\$200		\$10,037	3%
N. Highlnds / Foothill Farms	\$19,868	\$1,715	\$301	\$453	\$198	\$11	\$75		\$330	\$900	\$23,851	8%
N. Natomas	\$37,866			\$66		\$7					\$37,939	12%
Orangevale	\$34,562		\$96	\$560	\$54	\$7	\$20		\$130	\$300	\$35,729	11%
Rio Linda / Elverta	\$6,739	\$1096		\$66	\$12	\$8	\$295	\$885	\$10	\$300	\$9,411	3%
S. Sacramento	\$6,510	\$164	\$1,566	\$66	\$168	\$14	\$65		\$30	\$1,500	\$10,083	3%
S. Sacramento / Vineyard	\$0				\$6						\$6	0%
Southeast	\$16,315			\$66		\$7					\$16,388	5%
Vineyard	\$5,525			\$66		\$7	\$5	\$582			\$6,185	2%
Total	\$290,131	\$10,979	\$3,081	\$2,919	\$1,020	\$146	\$1,280	\$2,629	\$1,080	\$4,500	\$317,765	100%

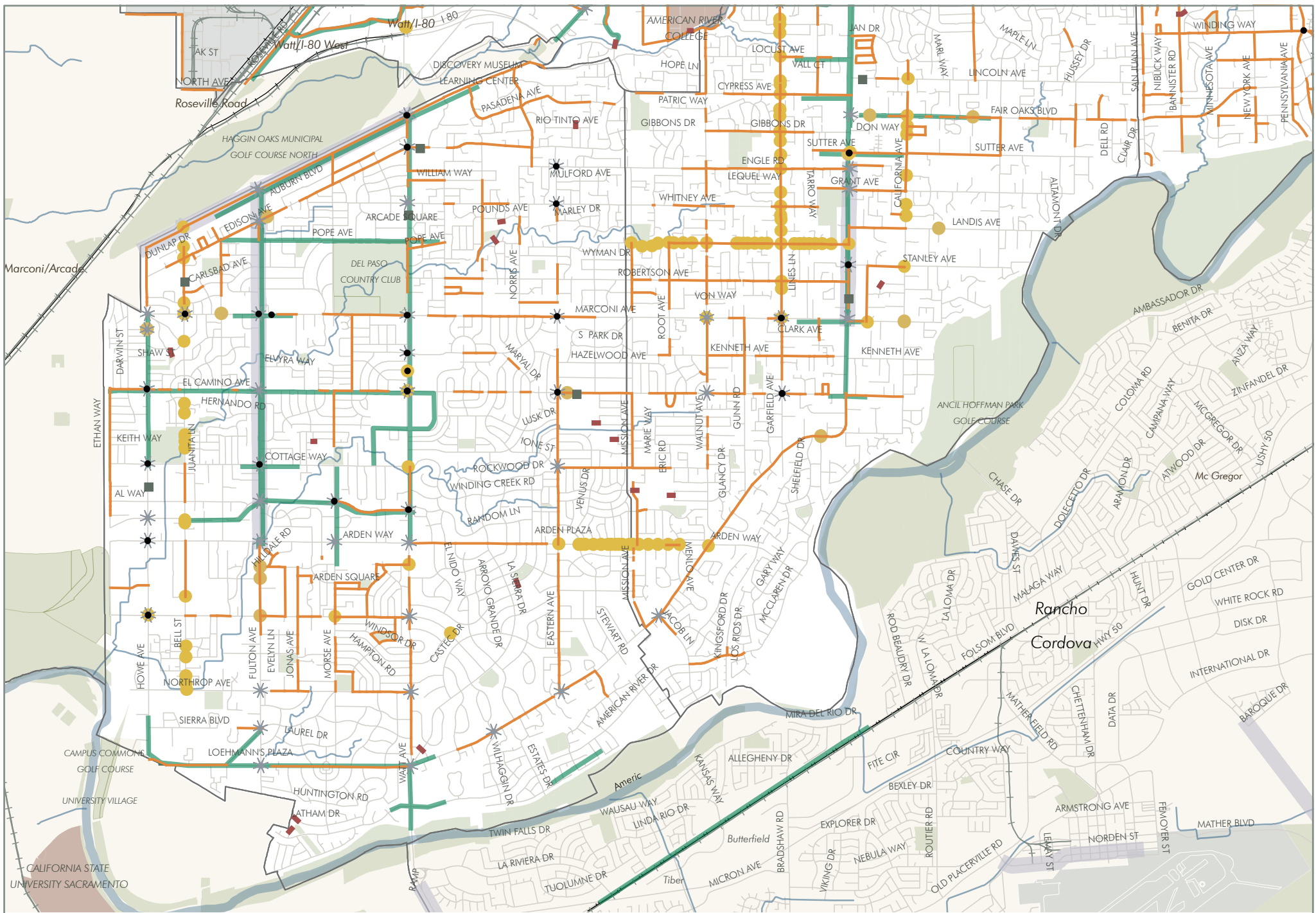
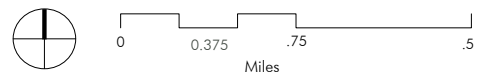


Fig. 27: Pedestrian Projects
Arden Arcade

- Signal Timing
- ✱ Countdown Signal
- Lighting
- 🚶 Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



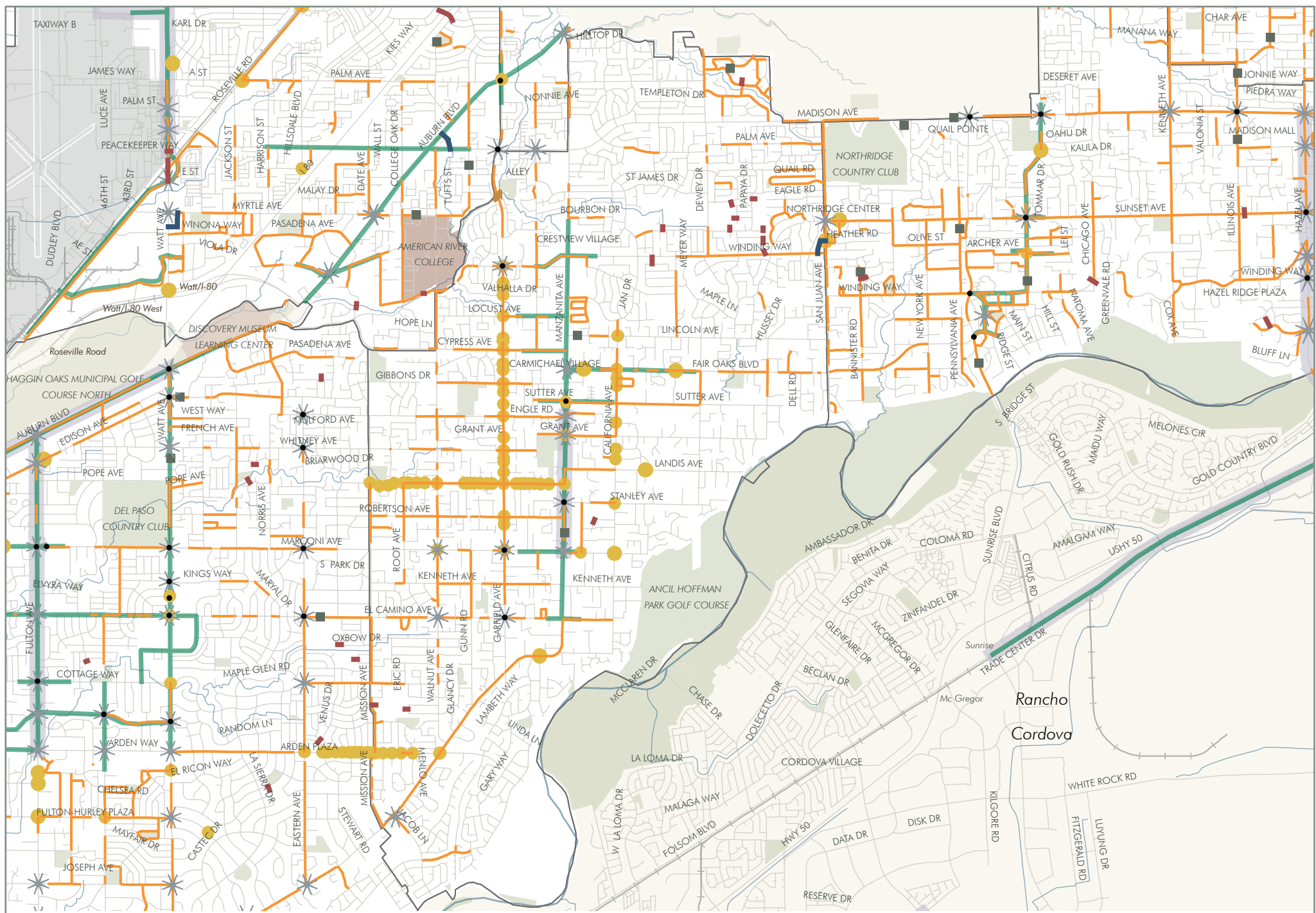


Fig. 28: Pedestrian Projects
Carmichael

- Signal Timing
- ✱ Countdown Signal
- Lighting
- Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



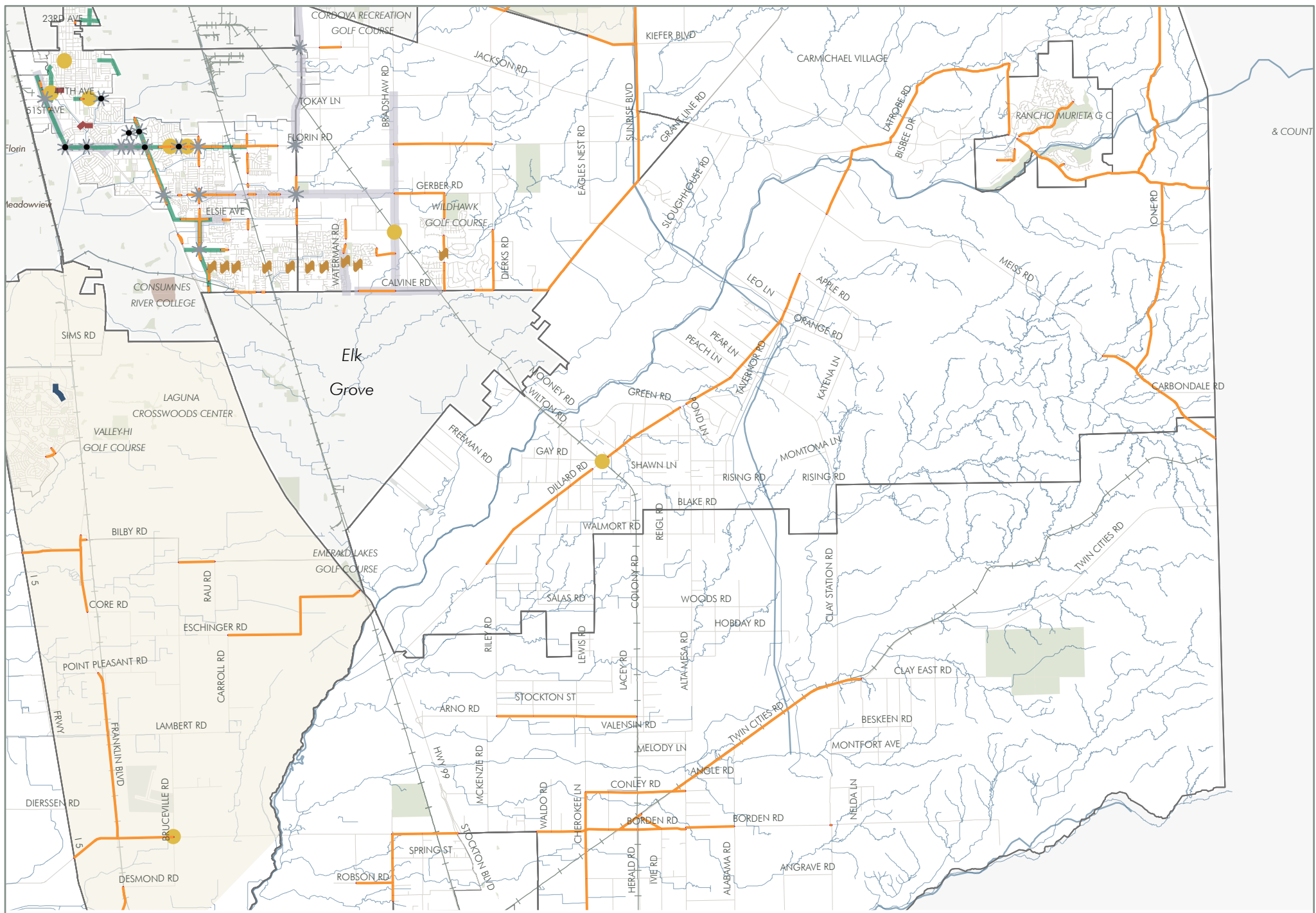


Fig. 29: Pedestrian Projects
Consummes and Southeast

- Signal Timing
- ✱ Countdown Signal
- Lighting
- 🚶 Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



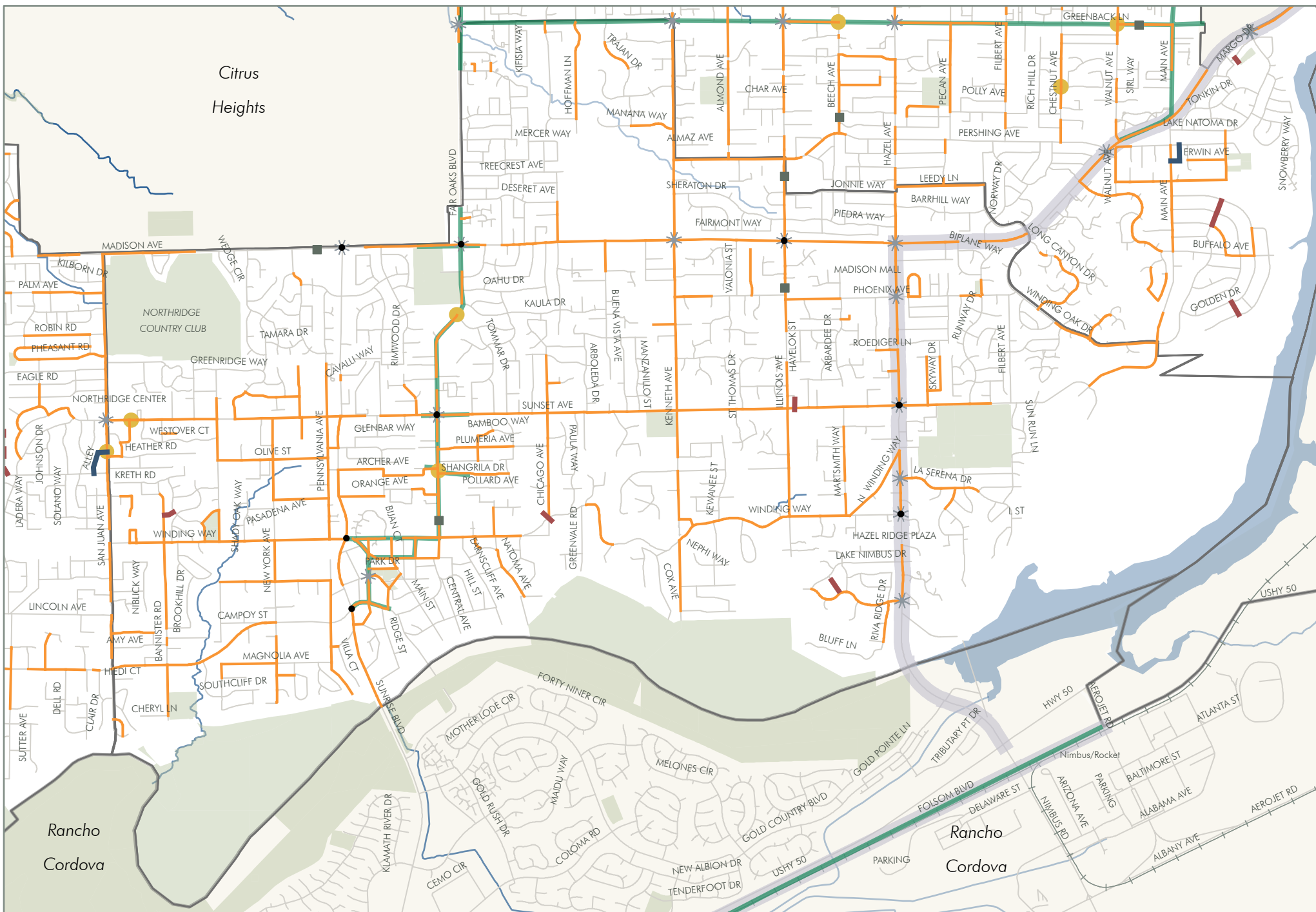
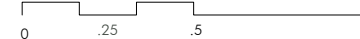


Fig. 30: Pedestrian Projects
Fair Oaks

- Signal Timing
- ✱ Countdown Signal
- Lighting
- ✱ Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



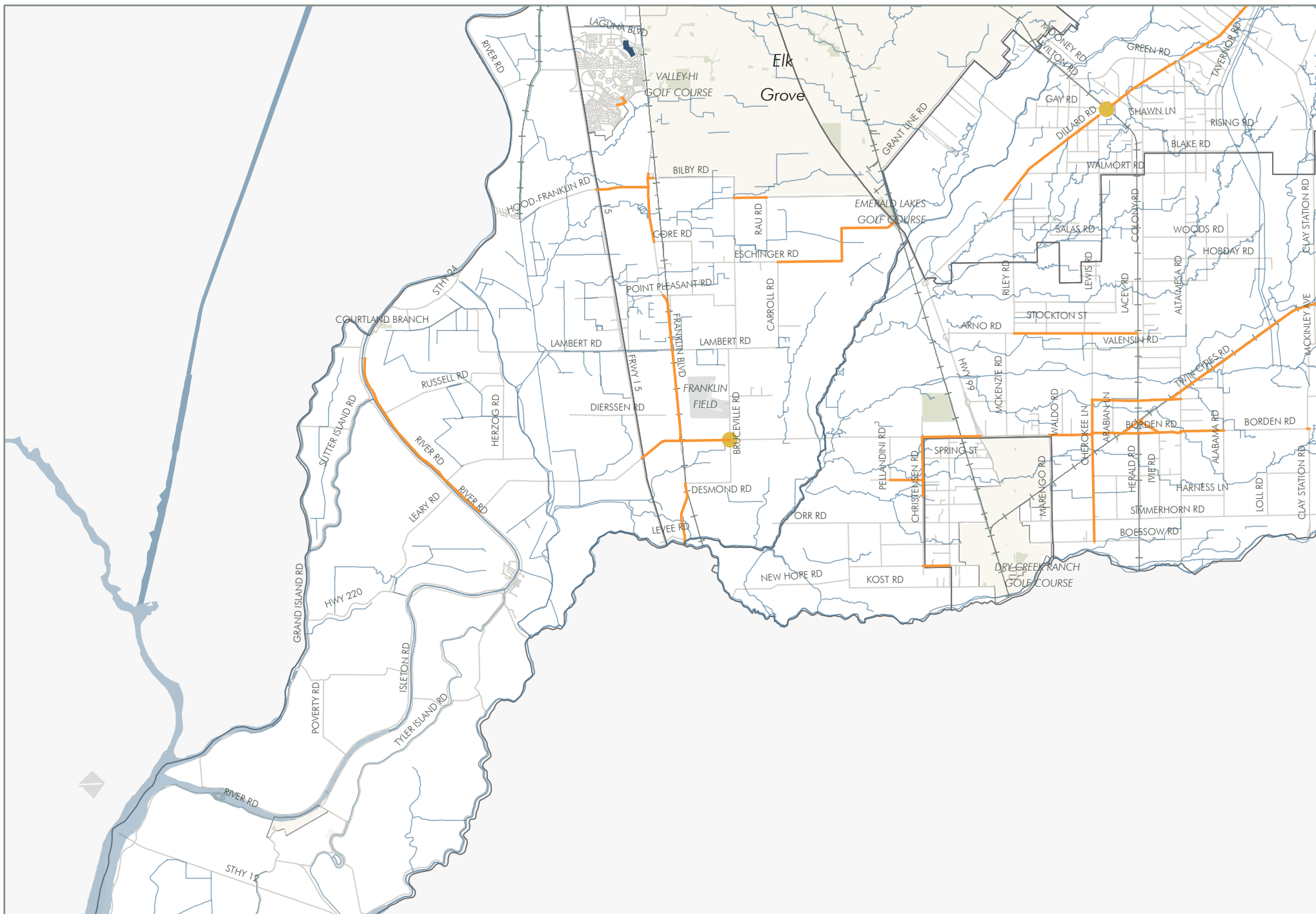


Fig. 31: Pedestrian Projects
Franklin Laguna | Delta

- Signal Timing
- ★ Countdown Signal
- Lighting
- ➔ Trail Crossing

- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway

- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



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Miles

Map prepared by Moore Iacofano Galtman, Inc.

April 2007

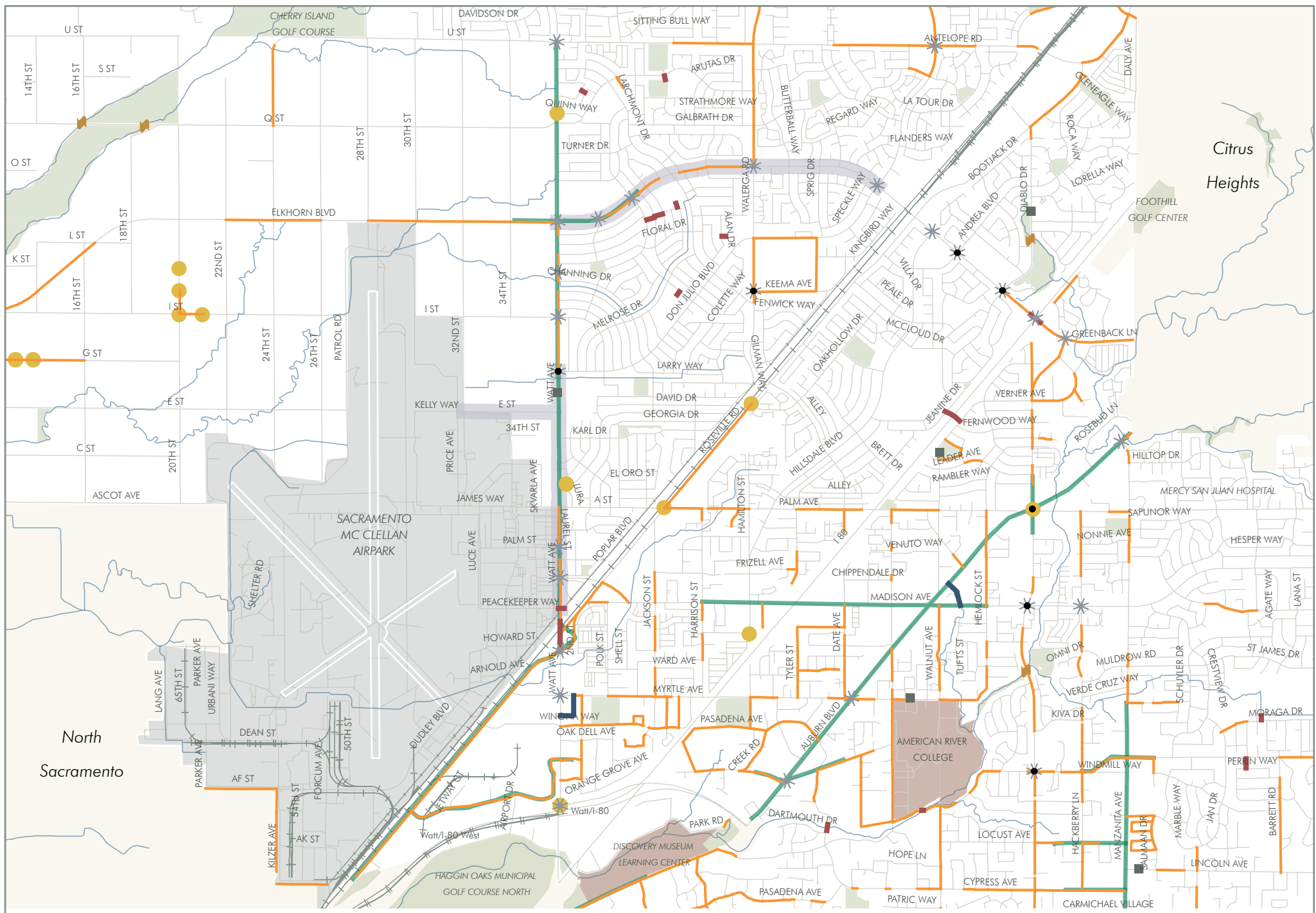


Fig. 32: Pedestrian Projects
 North Highlands | Foothill Farms | Antelope

- Signal Timing
- ★ Countdown Signal
- Lighting
- Trail Crossing
- Midblock Crossing
- Stream/River
- Pedestrian District
- Sidewalk/Asphalt Walkway
- Alley Conversion
- Pathway
- Roadway Project
- Incorporated Area



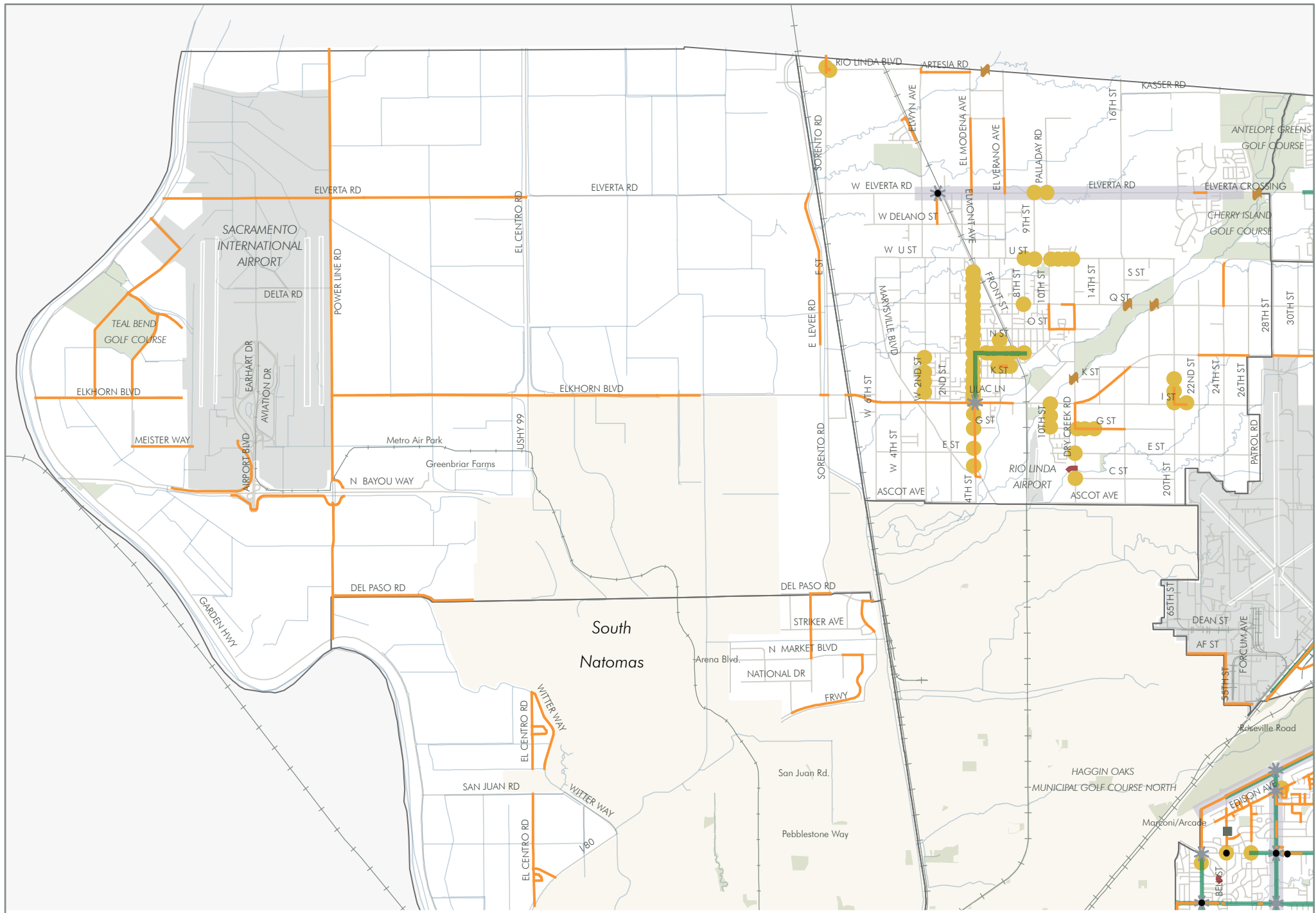
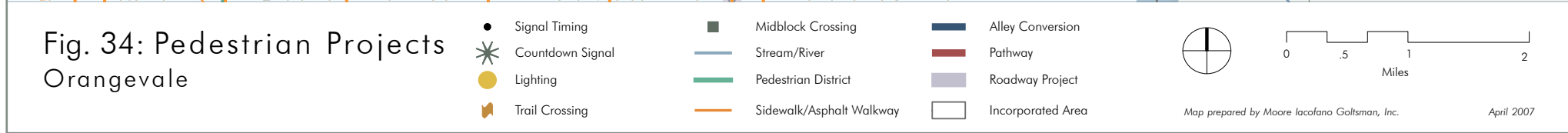


Fig. 33: Pedestrian Projects
North Natomas | Rio Linda-Elverta

- | | | |
|--------------------|----------------------------|---------------------|
| ● Signal Timing | ■ Midblock Crossing | ■ Alley Conversion |
| ✱ Countdown Signal | — Stream/River | — Pathway |
| ● Lighting | — Pedestrian District | — Roadway Project |
| ✱ Trail Crossing | — Sidewalk/Asphalt Walkway | □ Incorporated Area |





- Signal Timing
- ✳ Countdown Signal
- Lighting
- 🚶 Trail Crossing

Midblock Crossing
Stream/River
Pedestrian District
Sidewalk/Asphalt W

-  Alley Conversion
-  Pathway
-  Roadway Project
-  Incorporated Area



Map prepared by Moore Iacofano Goltsman, Inc.

April 2007

Funding Plan

Overview

Implementation of the Capital Improvement Program (CIP) requires a strategy and commitment to obtain sufficient revenue to undertake the pedestrian improvements identified in the PMP. Current funding levels do not provide enough funding over the Plan's 20-year timeframe to complete all of the identified improvements. Without an assertive approach to identify new funding sources, it is likely that the PMP could take well over 50 years to implement. The existing funding framework forces the PMP to be driven and limited by access to various local, state and federal revenues and private sector funds. While the fund list, shown in Tables 34 and 35, is substantial, the core of the CIP funding plan contains a much smaller list of revenues that are projected to be consistent and stable. This section will look at existing funding programs, apply revenues to the CIP, and identify potential revenue sources that should be explored to augment revenues.

Funding Programs

The funding sources shown in Table 34 are federal or state funds that can be applied to pedestrian improvements. All of the funding sources in Table 34 are channeled into competitive grant programs either by the State of California or by the Sacramento Area Council of Governments. To receive any of these funds, Sacramento County must successfully compete for funds either within the SACOG region or within the State of California on a prescribed funding cycle. Access to new funds generally is not available between cycles.

Reliance on competitive funding poses two issues. Competitive programs may not offer a fair share allocation for Sacramento County pedestrian improvements during any single funding cycle. Fair share allocations can be averaged over multiple funding cycles. Thus, there is no guarantee of a consistent annual funding allocation. In addition, projects nominated under the Safe Routes to School or Community Design Program require that the pedestrian improvements meet goals other than solely improving pedestrian safety or connectivity. This results in the need to view CIP improvements from a grant compatible perspective. While the potential for funding from the competitive sources is substantial, it is not assured nor consistent funding.

Table 34: Primary Federal and State Funding Sources

Category	Overview
<i>Federal Funding</i>	
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	<p>A federal block grant program for projects in Clean Air Act non-attainment areas that help attain the national ambient air quality standards stated in the 1990 Clean Air Act amendments.</p> <p>www.dot.ca.gov/hq/transprog/reports/Official_CMAQ_Web_Page.htm</p> <p>Project Examples:</p> <p>Disabled Access to Transit (\$661,000) for Sacramento County including Rancho Cordova</p> <p>Pedestrian Master Plan/ADA Transition Plan (\$725,000) for Sacramento County including Rancho Cordova.</p>
Land and Water Conservation Fund (LWCF)	<p>LWCF grants may be used for statewide recreational planning and for acquiring and developing recreational parks and facilities, especially in urban areas. The funds are limited to outdoor recreation projects such as the acquisition of wetland habitat and the development of recreation facilities. http://www.parks.ca.gov/default.asp?page_id=21360</p> <p>Project Example:</p> <p>Bohemian Park Development (Fulton-El Camino Recreation and Park District)</p> <p>Seeley Park Development (Fulton-El Camino Recreation and Park District)</p> <p>Rossmoor Bar Park Development (Sacramento County)</p>
Recreational Trails Program (RTP)	<p>RTP annually provides monies for recreational trails and trail-related projects that are for motorized and non-motorized recreational trail users. The California State Parks Office of Grants and Local Services administers the non-motorized projects. RTP monies also can be used for youth authority trail crews, and five percent may be used on education such as safety, training and patrols. These funds originate from ten percent of each state's STP monies.</p> <p>http://www.parks.ca.gov/default.asp?page_id=21362</p>
Regional Surface Transportation Program (RSTP)	<p>A federal block grant program for a variety of transportation projects including pedestrian walkways and preservation of abandoned railway corridors for pedestrian and bicycle trails.</p> <p>www.dot.ca.gov/hq/transprog/reports/Official_RSTP_Web_Page.htm</p>
Transportation Enhancement Activities (TEA)	<p>TEA program funds transportation projects that help enhance the travel experience. The 12 eligible TEA categories include three that are pedestrian-oriented: bicycle and pedestrian facilities, bicycle and pedestrian educational activities and preservation of abandoned railway corridors for bicycle and pedestrian use.</p> <p>http://www.dot.ca.gov/hq/transprog/reports/Official_TEA_Web_Page.htm</p>

Category	Overview
State Funding	
CA Conservation Corps (CCC)	<p>The CCC program provides emergency assistance and public service conservation work. The CCC focuses on projects that enhance the environment and help build CCC member skills such as trail construction, tree planting and public works projects.</p> <p>http://www.ccc.ca.gov/PARTNER/partners.htm</p>
Community Based Transportation Planning (CBTP)	<p>CBTP monies are used mainly to fund planning activities for livable community projects. These projects encourage affordable housing, sustainable developments, land use and transportation integration, transit-oriented developments, jobs/housing balance and expanded transportation choices. http://www.dot.ca.gov/hq/tpp/offices/ocp/cbtpg.htm</p> <p>Project Examples:</p> <p>Los Rios Transportation Connections - \$119,450 (Sacramento County and WalkSacramento)</p> <p>Pedestrian Master Plan - \$300,000 (Sacramento County)</p>
Environmental Enhancement and Mitigation Program (EEMP)	<p>The EEMP funds projects that offset environmental impacts of modified or new public transportation facilities such as streets, Park & Ride facilities and transit stations. These funds were not funded in the Governor's budget for 2005/06. It is possible that future funding could help restore EEMP for fiscal year 2006/07. http://resources.ca.gov/eem/</p>
Environmental Justice (EJ)	<p>EJ planning grants are used to help engage low-income and minority communities in transportation projects early in the planning process to ensure equity and positive social, economic and environmental impacts occur. http://www.dot.ca.gov/hq/tpp/offices/opar/titleVIand%20EJ.htm</p>
Habitat Conservation Fund (HCF)	<p>The HCF program provides a competitive grant program. Trail projects, land acquisition and wildlife corridor restoration qualify for the trails/programs/urban access category.</p> <p>http://www.parks.ca.gov/default.asp?page_id=21361</p> <p>Project Example: American River Parkway Invasive Plant Management - \$100,000 (Sacramento County)</p>
Office of Traffic Safety (OTS) Program	<p>The primary objective of the program is to reduce motor vehicle fatalities and injuries. A bicycle and pedestrian safety program should include the following three components: education, enforcement and engineering.</p> <p>www.ots.ca.gov</p>
Regional Improvement Program (RIP)	<p>RIP provides state funding for a variety of transportation projects such as carpool lanes, transit stations and bicycle and pedestrian facilities. These funds represent 75 percent of the State Transportation Improvement Program (STIP), and are controlled by the Regional Transportation Planning Agencies (RTPAs).</p>
Safe Routes to School Program (SR2S) – SB 10	<p>The SR2S program funds projects that improve the safety of pedestrian and bicycle routes to/from schools.</p> <p>http://www.dot.ca.gov/hq/LocalPrograms/saferoute2.htm</p> <p>Project Examples:</p> <p>Abraham Lincoln Elementary and AM Winn Elementary</p> <p>Carnegie Middle School and Roberts Elementary School</p>

Category	Overview
<i>Regional Funding</i>	
Regional Bicycle and Pedestrian Program	SACOG has allocated \$350 million for regional priority bicycle and pedestrian projects between 2002 and 2025. www.sacog.org
Community Design Program	<p>SACOG's community design fund, which encourages walking, bicycling, streetscape improvements and "smart growth" projects, amounts to \$500 million between 2002 and 2025. The SACOG Board approved \$12 million for fiscal years 2003/04 and 2004/05. www.sacog.org</p> <p>Project Example:</p> <p>Linking Employment with Community – Freedom Park Drive in North Highlands - \$1.1 million (Sacramento County)</p> <p>Encouraging Neighborhood Walkability – Hurley Way Revitalization - \$141,000 (Sacramento County)</p>

A few public sources such as Sacramento County Measure A and Transportation Development Act funds are within the jurisdiction of the County (Table 35). Pedestrian improvements are eligible for these funding sources; however, there are many other transportation projects that also are eligible.

Table 35: Primary Local Funding Sources

Category	Overview
Local Funding	
County Roadway and Transit Fee Program	<p>The County has an adopted countywide transportation fee program that funds the construction of roadway and transit improvements to support the transportation needs associated with new development. The program is currently under revision to reflect updated project costs. One of the objectives of the revised program is to include off site pedestrian improvements in the capital project list. The exact amount that could be made available for pedestrian improvements is under analysis and will be determined.</p>
Community Development Funds	<p>Sacramento Housing and Redevelopment Agency (SHRA) administers funds for the City and County of Sacramento from the United States Department of Housing and Urban Development (HUD) under the Community Development Block Grant (CDBG) program.</p> <p>CDBG grants are used for a wide range of affordable housing, community redevelopment and commercial business assistance activities directed toward neighborhood revitalization, economic development and improved community facilities and services. These funds have been used to partially fund pedestrian improvements in appropriate areas.</p> <p>The primary objective of the CDBG Program as set forth by Congress is "the development of viable urban communities, by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income".</p>
Financing Districts	<p>The County has three main financing districts as shown below, which are expected to be allocated \$67.1 million between 2004 and 2007:</p> <ul style="list-style-type: none"> • Village of Zinfandel Financing District • Mather Field Financing District • SunRidge Financing District
Local Sales Tax – Measure A	<p>Voters in Sacramento County approved and reauthorized Measure A in November 2004, a one-half cent sales tax to fund transportation projects. Measure A sales tax is expected to amount to about \$5.2 million between 2004 and 2009. ADA improvements mainly come from Measure A. The County plans to spend about \$200,000 per year on curb ramp installations and sidewalk improvements.</p> <p>Project Examples:</p> <ul style="list-style-type: none"> • Coloma Road Enhancements, Sunrise Blvd. to west of Truckee Road • Folsom Blvd. Enhancements • Sunrise Blvd. Landscaping, Gold Country Blvd. to Zinfandel Drive
Road Fund	<p>The Road Fund is funded through the state gas tax revenues. The Road Fund is used mainly to fund roadway maintenance yet also is used for local match requirements and transportation support programs such as traffic engineering, planning and administration.</p>
Transportation Development Act (TDA) – SB 821	<p>TDA Article 3 states that one quarter cent of state gasoline tax is returned to the county of origin for the purpose of funding transportation improvements in that county such as bicycle and pedestrian facilities, safety programs and planning projects in that county.</p>

The funding plan comprises a mixture of locally controlled funds and competitive funds that offer a modest degree of continuity and stability. The most flexible funding, Measure A, is the most important source with other local funds used whenever possible as a supplement. The County Transportation Development Fee Program and Community Development Funds will be used as eligibility permits. Local funding will be supplemented by an aggressive grant program providing a substantive portion of the CIP costs.

The core of the funding plan includes:

- An annual pedestrian project set-aside to implement the PMP in the Annual Measure A Expenditure Plan
- Incorporation of pedestrian improvements into larger infrastructure improvement projects such as roadway widenings and drainage
- Incorporation of pedestrian infrastructure into other public utility investment plans
- County Transportation Development Fee Program
- Community Development Funds
- Successful grant applications to the following programs:
 - o State Transportation Improvement Program
 - o SACOG Pedestrian and Bicycle Funding Program
 - o SACOG Community Design Program
 - o Safe Routes to School
 - o Others as listed in Table 34

In recognition that this core program will need to be supplemented to maintain a robust level of implementation, a Community Study Group was formed to brainstorm and examine other opportunities for dedicated pedestrian improvement funding. A number of revenue options were considered and evaluated by the Group. In the section below, a number of potential revenue sources with follow up actions are described.

Funding the Ten-Year Capital Improvement Program (CIP)

Pedestrian projects may be funded either as standalone improvements or as part of larger capital improvement projects such as streetscape, corridor enhancement or roadway improvement projects. Given the competitive process to obtain most state and federal funds, the CIP improvements need to be packaged into competitive and successful grant applications. As a result, the CIP will need to be reexamined each year to

identify CIP projects that can be combined with each other as well with other types of improvements.

The CIP projects, either standalone or packaged, will be identified in the County Annual Seven Year Transportation Improvement Plan (TIP) based on the availability of funding. The Measure A funding, in particular, will provide a valuable source of local match. It also provides a funding source for standalone projects or for projects that can be paired with ADA improvements.

While the PMP includes capital improvements extending to a 20-year horizon, only the first ten years of the Plan are included in the CIP, and funding sources for only a five-year time frame have been examined. It is anticipated that the CIP projects, longer term projects and the funding plan will be revisited each year as the TIP is prepared and presented to the Board. During this process, stand alone projects and larger projects encompassing the CIP projects will be determined and incorporated into the TIP. At this stage, each project includes capital project costs and revenues, a project schedule and a general project scope. Toward the end of the five-year funding plan and again at the conclusion of the ten-year CIP, it will be necessary to update the funding plan to reflect current funding and project delivery conditions.

Tables 36-37 show estimates of funding by source over the next five years – the time frame for which an analysis of revenue sources could be most thoroughly conducted. If the annual average is calculated, approximately \$3.1 million is estimated to be available from all sources. This number is conservative since it does not include an estimate of potential developer fees and community development funds that could be added to a funding plan based on selected projects. Table 38 shows funds that have already been approved and are programmed for pedestrian improvements over the next five years.

**Table 36: Estimate of Sacramento County Core Revenue Sources
(annually in \$000's beginning 2005/06)**

Funding Source	Revenue Estimate
Measure A (ends 2009)	\$1,500
New Measure A (begins 2009)	\$500
Transportation Development Fee Program	To be determined
Housing and Community Development	To be determined

**Table 37: Target for Sacramento County Grant Total per Funding Cycle
(2006 & 2008 SACOG funding cycles; annual Caltrans cycle)**

Funding Source	Revenue Estimate*
SACOG Pedestrian and Bicycle Program	\$2,000
SACOG Community Design Program	\$2,000
Caltrans Safe Routes to School	\$300

*Based on experience in 2004, 2006, SACOG funding cycles.

Table 38: Approved PMP Funding (FY 2005/2006 – 2009/2010)

Projects	Cost Estimate
Sidewalk Continuity Project Phase 2	\$2,085,000 (TIP locations)
PMP Implementation	
El Camino	\$3,257,000
Marconi Avenue	\$1,500,000
Franklin Blvd. Streetscape	\$4,000,000
Florin School	\$690,000
47 th Avenue Victoria Station	\$1,205,000
Other Pedestrian Improvements	To be determined

The CIP identifies an annual capital improvement program ranging from a low of \$2.4 million to a high of \$3.4 million per year contingent upon the receipt of federal and state grants. The five-year revenue projection shows a core commitment from the County of a minimum of \$1,500,000 per year in Measure A funding to the PMP CIP as either a match of federal funds or direct support for pedestrian projects. The CIP also relies heavily on federal and state grants, and proposes to incorporate the developer fees into the overall funding mix upon completion of the fee update. Since grant funds are competitive and not assigned on an equity basis, the CIP is based on successful grants received by Sacramento County during the recent SACOG funding competition.

Because the PMP includes only those projects that are not part of larger roadway or corridor wide improvements, Table 39 also shows the dollar value of the pedestrian improvement component of projects that include pedestrian facilities as part of a larger streetscape or enhancement project. Tracking of all improvement dollars provides a more comprehensive assessment of the County's efforts to improve pedestrian conditions as well as the local, state and federal funds directed to pedestrian improvements. The "Pedestrian" line in Table 39 includes the estimated value of the pedestrian component.

Table 39: Roadway Improvement Projects with Pedestrian Component

Planned Expenditures	Total	Pedestrian
Auburn Blvd. Enhancements	\$1,350,000	\$202,000
Florin Road Enhancements	\$2,207,000	\$331,000
Fulton Ave. Enhancements Phase 2 -	\$6,140,000	\$921,000
North Watt Ave. Enhancements	\$3,306,000	\$496,000
North Watt Ave. Enhancements Phase 2	\$3,210,000	\$481,000
Watt Ave. Enhancements Phase 2	\$7,939,000	\$1,200,000
Bradshaw Road roadway and intersection improvements	\$29,000,000	\$170,000
Elverta Road roadway and intersection improvements	\$17,600,000	\$850,000
Freedom Park Drive Pedestrian & Streetscape	\$1,100,000	\$165,000
Hurley Way Revitalization	\$130,000	Not Applicable
Watt Ave./Roseville Road RR Pedestrian undercrossing	\$130,000	Not Applicable
Fair Oaks Blvd. (Marconi – Engle)	\$9,734,000	\$1,500,000
Hazel Ave. (US50 – Madison)	\$48,455,000	\$7,200,000

During 2009, a number of changes are anticipated that could impact the revenue stream of three funding sources. First, Measure A will expire and the New Measure A will begin. This transition is significant since there will be less money slotted for all pedestrian, bicycle and ADA improvements. Second, the SAFETEA LU will expire and a new federal transportation bill will begin, which could trigger changes in the law and the distribution of funds. Third, Proposition 42 should begin to provide additional revenue for roadway maintenance, which could increase overall state transportation funding. The impact of these changes will need to be analyzed as 2009 approaches.

Options for New County Revenue Sources/Partnering

As noted above, the year 2009 will bring new transportation funding opportunities and challenges. It is critical that supplemental funding sources be tapped. Of the potential funding sources considered by the Community Study Group, the following were recommended for short-term implementation:

- Update the County Transportation Developer Fee program.
- Execute an MOU with SMUD to remove pedestrian obstacles created by utility infrastructure.
- Pursue an aggressive competitive grant program.

In addition to the core funding program, a number of potential revenue sources were identified by a Community Study Group to expand the core funding base for the CIP. Due to fluctuations in state and federal transportation funding levels, a reduced Measure A allocation for pedestrian projects beginning in 2009, as well as the cyclical nature of many funding programs, the Study group considered opportunities to supplement the core revenue sources. After reviewing existing funding programs, the Group identified a number of new and creative mechanisms that could provide additional revenues. While some forty funding mechanisms were discussed, the Group evaluated each and is recommending that five funding sources be further explored.

Each of these potential funding sources has a basis in law and could be enacted with appropriate administrative and policy decisions. Initial research on each mechanism was completed and two of the recommendations are currently underway. The action items on how to proceed with the supplemental funding plan are as follows:

- Update the County Roadway and Transit Fee Program to include pedestrian projects
- Pursue an aggressive program to develop successful applications for the SACOG and state grant programs
- Enter into an agreement with SMUD for the purpose of obstacle removal/relocation on pedestrian rights of way identified in the PMP
- Encourage the formation of Business Improvement Districts for the purpose of modest revenue generation but more importantly for partnering with the public sector

- Consider the implementation of Sacramento County Street Agreements as a way to increase private revenue for street and pedestrian improvements.
- Consider implementing increased parking fines from ADA parking violations
- Consider the use of a modest portion of the Road Fund for pedestrian improvements if Proposition 42 is implemented as scheduled in 2009

Update the County Roadway and Transit Fee Program to include pedestrian projects

The County Board of Supervisors adopted a countywide transportation developer fee in 1988 to fund the construction of roadway and transit improvements required to support new land development generated transportation needs. The fee is a Measure A (MSA) requirement and is a condition for receipt of MSA funds. Since its inception, the fee has been updated once, but is now in need of a major update to address increased roadway maintenance costs including bicycle and pedestrian needs. While the amount of funding to be generated from the fee increase is not known at this time, research in other jurisdictions indicates that up to a 400 percent fee increase could be generated from the fee update; and, the exact amount that could be made available for pedestrian improvements requires further consideration. The Sacramento County fee program will be updated over the next several months. On February 21, 2006, the Board of Supervisors approved an interim fee increase of 200 percent, effective immediately, while the permanent fee program is completed. This recommendation is underway as part of the County's study to update the existing County Roadway and Transit Fee Program.

Pursue an aggressive program to develop successful applications for the SACOG Grant Programs

SACOG grant programs for Community Design and Bicycle and Pedestrian projects offer cyclical opportunities for Sacramento County to apply for capital improvement program funds to implement the PMP. The ad hoc study group suggested that a more aggressive program to obtain both types of funding be implemented to take advantage of the next grant cycle at the end of 2005. While each grant program focuses on different types of projects, both programs offer the opportunity to enhance funding for pedestrian and ADA projects. An objective is to generate approximately \$2 million per year from grant programs. This recommendation was implemented and

achieved during the 2005/2006 SACOG competitive funding cycle. Using the PMP as a foundation for establishing project need and priorities, a number of grant applications were funded by SACOG. It is anticipated that a similar effort will be needed to maintain a successful grant program.

Enter into an agreement with the SMUD for the purpose of obstacle removal/relocation on pedestrian rights of way identified in the PMP

This recommendation does not provide new revenue but will provide SMUD resources to remove or move obstacles in the pedestrian path. It is anticipated that an MOU will be developed under which a list of pedestrian facilities will be identified that require improved accessibility. SMUD will work with the County staff to determine the most appropriate and cost effective fix to alleviate the obstruction and provide for a continuous path. This recommendation is under discussion and negotiation with SMUD.

Encourage the formation of Business Improvement Districts for the purpose of modest revenue generation but more importantly for partnering with public sector

This recommendation requires more discussion since it can be applied to designated areas with the support of business or property owners. Business Improvement Districts (BID) could offer limited funding to support pedestrian improvements. BIDs are formed by businesses within a designated area to help improve the physical infrastructure or provide other services needed to enhance the business environment. Businesses choose to self impose an annual assessment for a designated list of services or improvements. While the revenue potential from any BID is limited, BIDs can offer a potential for partnering with the business community in areas where pedestrian and ADA improvements are needed. It is this latter objective that moved the ad hoc study group to recommend further exploration of BIDs as a funding resource. BID funding is already being used for streetscape work. One incentive for BID formation is to provide a County match to funds provided by the BID. The match allows each BID dollar to be doubled in value.

Consider the implementation of existing Sacramento County Street Agreements as a way to increase private revenue for street and pedestrian improvements

Under Title 12.03.05 of Sacramento County Code covering street improvements, street agreements require that property owners pay for curb lane improvements. The agreements are documented in property titles. A street agreement acknowledges that curb lane improvements are the responsibility of adjacent property owners who receive a specific benefit when improvements commensurate with the street classification are completed. While street agreements exist in many property titles, requesting payment is triggered when a development or property improvement is requested by the property owner. Funds can only be used on the curb lane improvements adjacent to the property.

Street agreements offer a source of revenue that is based on current County Code. However, there are issues regarding the implementation and timely collection of funds. First, the amount of funding that can be generated is variable and is based on the location of proposed curb lane improvements. Second, the existence of street agreements does not affect every piece of property (not every property has a street agreement). Third, there is question regarding how to enforce the collection of funds from the property owners.

This recommendation was discussed at length by the ad hoc Community Group. After considering implementation issues, it was determined that a better understanding of street agreements is needed by staff and property owners before it can become an effective revenue stream.

Consider implementing increased parking fines from ADA parking violations

The State penal code 1463.2 allows that \$50.00 of every parking fine associated with an ADA related violation received by the County may be used for making facilities ADA compliant. A special account is established for this purpose and funds may be used for a variety of modifications to public infrastructure. Parking fines could be used to remove sidewalk barriers that are not part of the ADA Transition Plan as well as other ADA Transition Plan improvements.

There are other penal code sections that also govern citations and the amount of funding that could be used for ADA improvements. A thorough review of all provisions would be required before a recommendation is made. There are many factors that impact the collection of funds from each ticket and how much is collected. An approximate estimate of funds that could be generated from this source would likely be determined by the codes that are used but would be in the range of

\$150,000 – 250,000 annually. This recommendation requires additional research and discussion.

Consider the use of a modest portion of the Road Fund for pedestrian improvements if Proposition 42 is implemented as scheduled in 2009

Proposition 42 was a constitutional amendment that requires existing revenues resulting from the sales tax on gasoline be used for transportation purposes. The provisions of Proposition 42 were suspended over the past two years due to the State budget crisis. While funding was restored for fiscal year 2005/2006, it is uncertain whether this funding restoration will continue over the next few years. However, it appears that Proposition 42 will be available in 2006/07 to a limited degree. From now until 2009, funds are used for both the Governor's Transportation Congestion Relief program known as TCRP as well as direct subventions to cities and counties. County road repairs and improvements are an eligible use of these funds. Beginning in 2009, funding will be allocated to cities, counties and transit operators for a variety of operating and capital purposes at a higher level since it is anticipated that the TCRP will be funded or terminated.

Assuming that Proposition 42 funding is instituted as an annual program in 2009, it will add new revenue for County road maintenance, which is a priority transportation need within the unincorporated County. With an increased funding level, a small portion of the County road maintenance budget could be redistributed to bicycle and pedestrian projects assuming that it does not degrade the County road maintenance program. This funding will augment other revenues such as the new Measure A, grants and developer fees as well as any new funding sources implemented over the next three years. The actual amount of funding diverted from the road maintenance budget would be limited to the commitment from the County --- currently, \$1,500,000 annually. This recommendation requires further discussion since it is dependent upon State implementation of Proposition 42 as well as a County policy decision on the use of the Road Fund.

It is recognized that there are alternative funding techniques for pedestrian projects throughout the nation. The above strategies, however, represent the consensus of the community ad hoc advisory group on those strategies that show the most promise for increasing funding sources and levels within Sacramento County.