



VALLEY SPRINGS TOWN CENTER CONNECTIVITY PLAN

APRIL 2020

PREPARED FOR



CALAVERAS COUNCIL
of GOVERNMENTS

PREPARED BY



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CHAPTER I: INTRODUCTION

Located at the crossroads of State Route (SR) 12 and 26 in the rolling foothills of western Calaveras County, the community of Valley Springs maintains its historic character that presents both opportunities and challenges to enhancing a safe multi-modal transportation system.

The historic Town Center of Valley Springs lies northwest of the intersection of SR 12 and 26, and includes a residential neighborhood, local businesses, and community services including Valley Springs Elementary School. The Valley Oaks shopping center is located on the east corner of the intersection, with other commercial businesses located along both SR 12 and SR 26 near the Town Center.

The neighborhood north of SR 12 is laid out on a grid network of local streets, but many lack sidewalks. A few of the children fortunate to live within a few blocks of Valley Springs Elementary School walk along the edge of the roadway, but most are driven to school by parents concerned about safety. Congestion plagues the neighborhood in concentrated peaks as parents form long queues to drop off or pick up students from the school. Daphne Street has bicycle lanes, but it lies one block south of the entrance to the school and no connection is identified.

With two state highways passing through the community, safe local travel is difficult for people walking or bicycling. Particularly during peak commute hours, congestion on these state highways and intersections presents a barrier to safe travel along or across the corridors.

This Valley Springs Town Center Connectivity Plan presents an evaluation of these safety and circulation issues, documents community needs, and identifies multi-modal improvements. Improvements recommended in this Plan are based on input from the community and technical analysis, and seek to maximize safety and operations along the SR 26 corridor, including providing safe routes to school and within the historic Town Center for people of all ages and abilities and for all modes of transportation. This Plan provides a foundation for implementation of the described improvement concepts, including support for competitive funding opportunities like California's Active Transportation Program.



PURPOSE AND NEED

Valley Springs currently experiences safety and circulation issues in the historic Town Center including challenging school circulation, a lack of bicycle and pedestrian connectivity, and access and operational challenges for local and regional motor vehicle traffic. This Plan seeks to improve multimodal safety and accessibility while maintaining safe and efficient local and regional access for all modes of transportation.

Circulation challenges around Valley Springs Elementary School are a key driver in this planning process. Parent concerns about congestion and a desire for safe walking and bicycling routes to the school were expressed to the Calaveras County Board of Supervisors prior to the development of this Plan, and these issues continued to be a common thread through all the community engagement activities conducted.

Recommendations in this Plan include improvements that will connect people to the school, shopping center, and recreational areas by enhancing the built environment for all modes of transportation including people walking, bicycling, and driving; transit riders; and freight.

PROJECT APPROACH

Local and State transportation policy has progressed from planning and designing almost solely for the movement of motorized vehicles, to a collective focus on the movement of people and goods by multiple modes of transportation. Complete Streets policy and design exemplifies this paradigm shift by recognizing that not all people travel by car, and that land use affects how the street is used and how it should function as a whole. Appendix A presents a summary of existing planning and policy documents that guide transportation planning in Calaveras County.

The Valley Springs Town Center Connectivity Plan follows a Complete Streets framework, elevating the needs of non-motorized users to guide development of an improved roadway network that is comfortable, accessible, and convenient for all users. The Plan includes four performance metrics used to assess the current transportation needs in Valley Springs and evaluate the benefits of recommended improvements:

- » Bicycle Level of Traffic Stress (Bicycle LTS)
- » Pedestrian Level of Traffic Stress (Pedestrian LTS)
- » Level of Service (LOS)
- » Collision Rates

These data-driven measures were combined with public feedback to understand the community's challenges. The Plan then applies a Complete Streets framework to recommend solutions which improve conditions in Valley Springs for people walking, bicycling, driving, and riding transit.

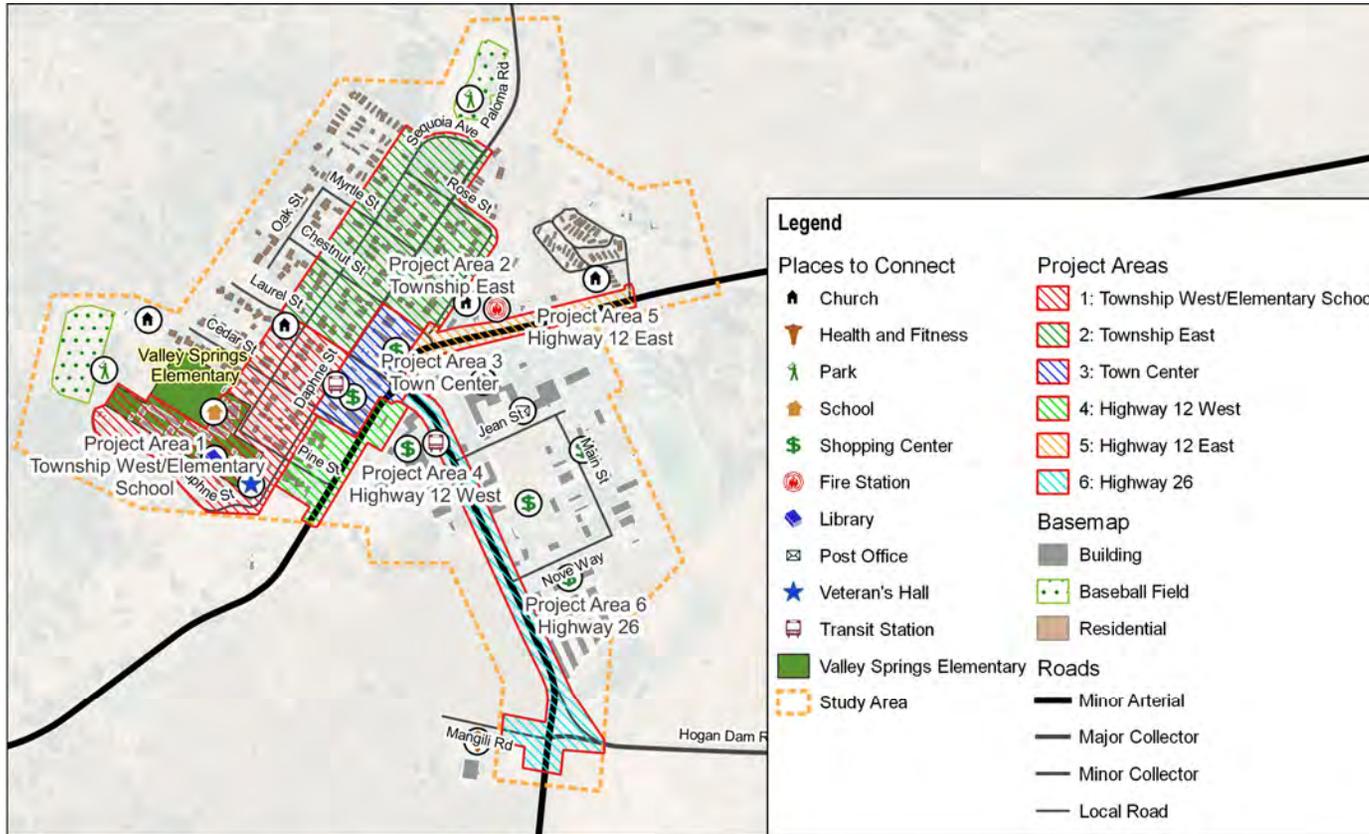


STUDY AREA

The historic Town Center has been organized into six areas based on context and logical boundaries to allow for more nuanced analysis. Existing conditions, analyses, and recommendations are presented for these six areas as shown in Figure 1-1.

These six areas provide an opportunity to review a higher level of detail within the Valley Springs Community, to allow discussion of challenges in a block-by-block manner. Recommended improvements are outlined within each area, but should also be considered in the context of responsible agency: Calaveras County improvements and Caltrans improvements. Areas one through three are within the jurisdiction of Calaveras County, and four through six are within the purview of Caltrans.

FIGURE I-1: PROJECT AREAS



PUBLIC OUTREACH

Broad community engagement is essential to the success of this Plan. To that end, multiple rounds of outreach were conducted to gather input from diverse Valley Springs residents and community members on current conditions and challenges as well as seek feedback on draft concepts and recommendations.

Information about upcoming meetings and other events, along with notice about project documents available for the community to review, was distributed using a variety of tools to reach as many community members as possible. These included emails to existing mailing lists of My Valley Springs and Valley Springs Elementary School, information on a project website as well as My Valley Springs and Pine Tree websites, press releases sent to local media outlets, flyers distributed in newspapers and posted in the community, and social media posts shared by multiple project partners.

A stakeholder committee was formed by Calaveras COG to guide the development of this Plan. Representatives invited to participate included the local business community, school faculty and parents, Caltrans and other agency partners, and local community organizations including the visitors' bureau, senior center, library, and Jenny Lind Veterans Memorial District. Two meetings were convened: one to discuss the scope of this Plan and discuss a vision for the Town Center Area, and a second meeting to review and provide comments on draft design concepts.

Community outreach activities are discussed in this report in the Existing Conditions and Needs Analysis chapters, organized around two phases of engagement activities. Early in the project during documentation of existing conditions, outreach activities focused on gathering community input on challenges and improvements they would like to see in Valley Springs. Later in the project, results from technical analyses and conceptual designs for some improvement alternatives were shared with the community in a second phase of outreach focused on refining and prioritizing the recommended improvements. Detailed information about community events and documentation of feedback is provided in Appendix B.



ORGANIZATION

This Plan is organized in five chapters:

- » **Chapter 1: Introduction.** This chapter provides an overview of the project, the community of Valley Springs, and the project goals and approach.
- » **Chapter 2: Existing Conditions.** This chapter outlines the current state of transportation in Valley Springs, including existing facilities, community input, and local context.
- » **Chapter 3: Needs Analysis.** This chapter identifies the need for improvements in the study area based on a series of technical analyses and community input.
- » **Chapter 4: Recommended Improvements.** This chapter presents the infrastructure improvements for each of the six Project Areas.
- » **Chapter 5: Implementation Plan.** This chapter recommends a strategic plan to implement improvements included in the Plan, including securing funding.

Four appendices provide additional detail on the following topics:

- » **Appendix A: Planning Context** includes a review of relevant local, regional, and state planning and policy documents.
- » **Appendix B: Community Input** documents public outreach tools and events along with a summary of feedback received.
- » **Appendix C: Data and Analyses** provides additional detail on methodology and findings for the technical analyses conducted as part of this Plan.
- » **Appendix D: Improvements Benefit Assessment** presents analysis of the recommended improvements based on criteria and metrics commonly used in funding programs.



CHAPTER 2: EXISTING CONDITIONS

This chapter describes the existing transportation landscape in the Valley Springs area, including a discussion of related themes that inform the recommended improvements for the community.

LOCAL CONTEXT

Valley Springs is an unincorporated census-designated place (CDP) situated along SR 12 and 26 in Calaveras County Supervisorial District 1, and Caltrans District 10. South of the study area for this Plan, some areas of Valley Springs are in Calaveras County Supervisorial District 5.

SR 12 runs east/west through Valley Springs, accommodating regional and interregional travel through Calaveras County and adjacent Tuolumne and Amador counties. Located adjacent to the intersection of SR 12 and SR 26, the Valley Springs Town Center is approximately 3.5 miles east of Burson and approximately 9.5 miles west of San Andreas. Valley Springs is approximately 56 miles southeast of Sacramento and 116 miles northeast of San Francisco.

DEMOGRAPHICS

The population of Valley Springs is estimated to be 3,553, making up approximately 9 percent of the total Calaveras County population. The census designated places (CDP) boundary for Valley Springs has a total area of approximately 9.9 square miles (6,317 acres). In 2010, Valley Springs had 1,364 households, with an average household size of 2.6 persons/household. The median age is 52.4, which is only slightly higher than the county average of 51.2.

The median household income in Valley Springs is \$61,976, which is approximately 15 percent higher than the county average of \$53,502. Approximately 14 percent of housing units in Valley Springs were vacant in 2017, which is more than four times higher than the state average of 8.1 percent. Of the occupied households, approximately 66 percent are occupied by homeowners and 33 percent are occupied by renters.



LAND USE

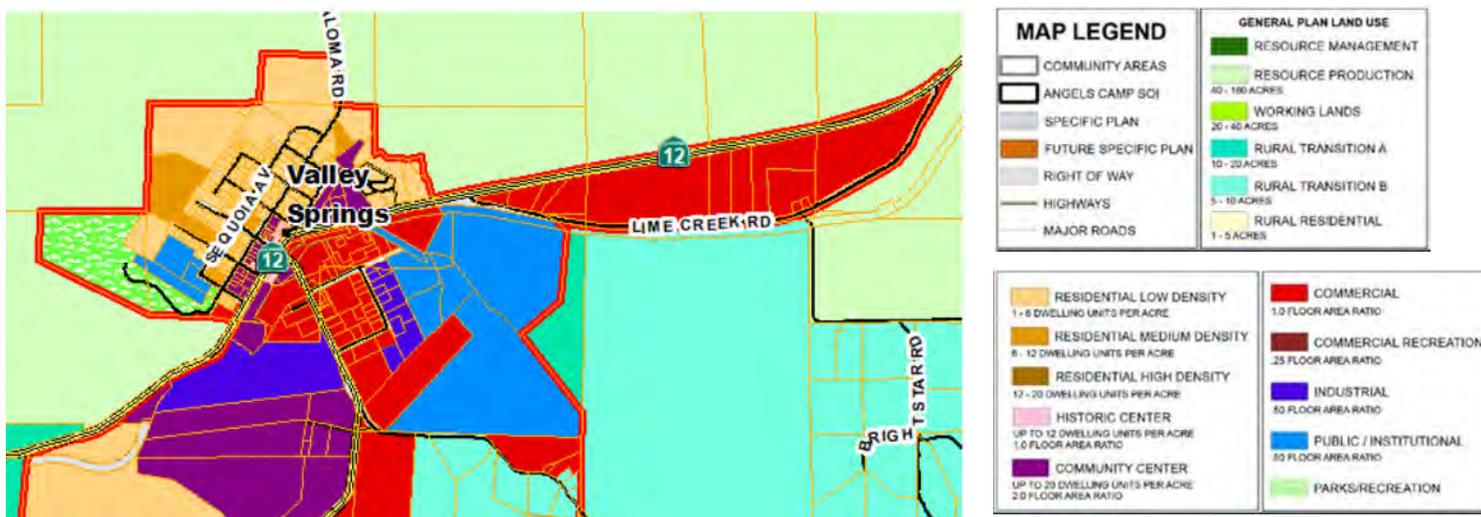
The community of Valley Springs has a compact town center, with retail, restaurants, and other commercial services located along the state highways. West of Highway 12, commercial uses are located along California Street/Highway 12 between Cedar Street and Chestnut Street. Additional commercial uses are located along State Route 26 to the south.

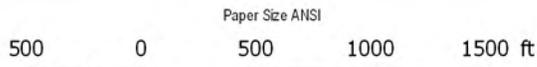
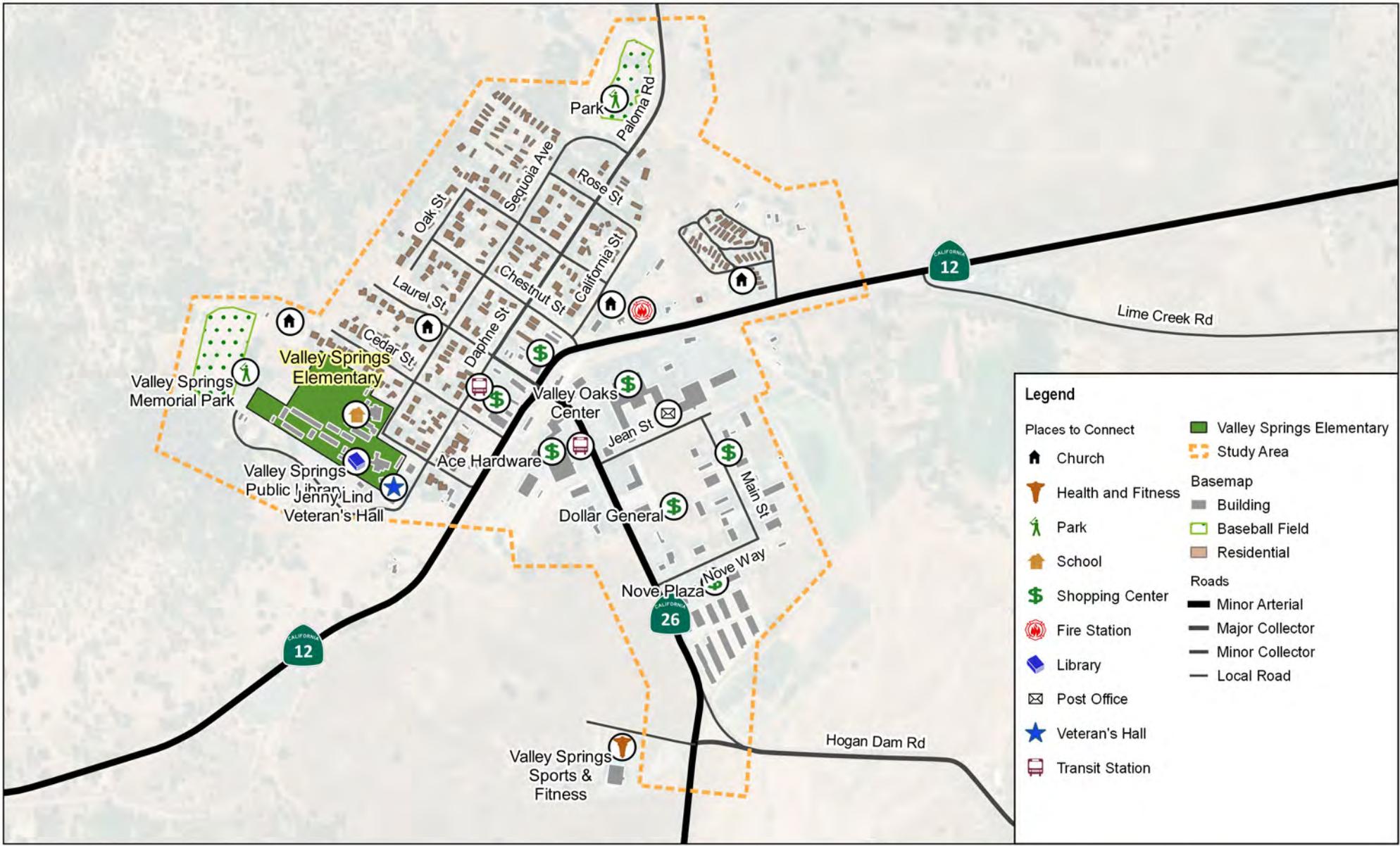
Land use designations for the study area are shown in Figure 2-1 below. Project Areas 1 and 2 include primarily low- and medium-density residential uses. Historic Center and Community Center uses are located along SR 12 on either side of SR 26, and the remaining area is primarily designated for Industrial or Commercial use.

Within the town center, a variety of civic uses are located at the west side of town: churches, the library, the Veterans Hall, and Valley Springs Elementary School. These uses are integrated with the residential area of the town center, allowing the opportunity for short bicycling and walking trips to these key community destinations.

The community origins are generally the residential areas and destinations are presented as points of interest in Figure 2-2 on the following page. These origins and destinations formed the basis for this study's multimodal connectivity assessment. Providing low-stress connectivity between these origins and destinations, or points of interest, guided the development of the improvement network.

FIGURE 2-1: LAND USE IN VALLEY SPRINGS – CALAVERAS COUNTY 2019 GENERAL PLAN





Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 CORS96
Grid: NAD 1986 CORS96 StatePlane California III FIPS 0403 Ft US



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Community Points of
Interest

Project No. 11159238
Revision No. -
Date: 01/14/2020

FIGURE 2-2

Data Source:

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TRANSPORTATION CONTEXT

COMMUTE PATTERNS

Based on 2016 5-year estimates from the American Community Survey (ACS), commuters who live in Valley Springs travel an average of 40.8 minutes to work—more than 5 minutes longer than the Calaveras County average of 35.5 minutes.

Nearly 80 percent of Valley Springs commuters drive to work alone, and an additional 12 percent carpool. About one percent used a taxi, motorcycle, bicycle, or other mode of transportation, and eight percent work from home.

No residents reported walking or using public transportation to commute to work in the ACS data, though the relatively small population of just 1,452 workers in Valley Springs may contribute to a fairly large margin of error. Data from an on-board survey conducted for the County’s Short Range Transit Plan showed 19 percent of riders on the bus line to Valley Springs are commuting to work. This ridership data indicates some use of transit by the Valley Springs community; trips may be for work or other purposes.

ACS data also shows more than three percent of households in Valley Springs do not have access to a vehicle. These residents likely rely on walking, bicycling, or public transit for their daily transportation needs.

TABLE 2-1: MEANS OF COMMUTER TRANSPORTATION TO WORK

Means of Transportation to Work	Valley Springs		Calaveras County	
	Est.	Percent	Est.	Percent
Drive Alone	1,144	79%	12,476	78%
Carpool	180	12%	1,695	10.6%
Public Transportation	0	0%	128	0.8%
Walked	0	0%	304	1.9%
Taxicab, Motorcycle, Bicycle, or Other Means	16	1%	160	1%
Worked at Home	112	8%	1,232	7.7%
Total	1,452		15,995	

Source: U.S. Census Bureau; *Commuting Characteristics, 2012-2016 American Community Survey 5-Year Estimates*



EXISTING ROAD NETWORK

Four roads in the Valley Springs area serve local traffic while also providing connections to regional destinations in Calaveras County and beyond. SR 12 and SR 26 are two-lane state highways in the project area, with turn lanes or pockets near the intersection of the two routes. Both highways are classified as minor arterials in the 2019 Calaveras County General Plan.

Hogan Dam Road and Paloma Road are both two-lane roads classified as a major collector and minor collector, respectively. Hogan Dam Road connects SR 26 to recreational areas around New Hogan Lake, while Paloma Road extends north from Daphne Street and offers a popular recreational bicycling route with connections to Pardee Reservoir and other destinations.

Local roads in a grid pattern form the historic Town Center area in Valley Springs. This area, located northwest of the intersection of SR 12 and SR 26, is roughly three blocks wide and six blocks long. All other roadways in the study area are also classified as local roads.

EXISTING BICYCLE AND PEDESTRIAN NETWORK

As is the case with many small communities, Valley Springs has limited pedestrian and bicycle infrastructure. Where present, many sidewalks were developed prior to modern standards and are narrow, have obstructions in the walkways, are inaccessible to people with limited mobility, or are in poor condition, as on Laurel Street.

Within the Town Center area, the limited bicycle and pedestrian facilities currently provide some multi-modal access to the elementary school and the downtown commercial core. Class II bicycle lanes exist along most of the Daphne Street corridor, from Pine Street to Rose Street. At Rose Street, a short segment of Class I shared use path extends to the end of Valley Springs at Sequoia Avenue. Little pedestrian infrastructure exists on the County roads off the State Highway system, although some sidewalk is present along Daphne Street, where frontage improvements have been implemented in recent years. Crosswalks are present, with some school crossings in the vicinity of Valley Springs Elementary School.

As projects have been completed on SR 12 and SR 26 bicycle markings, accessible ramps, crosswalks, and sidewalks have been implemented. These projects have included the intersection SR 12 and SR 26, and areas where new development has occurred along SR 26. Implementation has occurred as opportunities arose in a sporadic fashion, and many gaps remain. Existing bicycle and pedestrian facilities are shown in Figure 2-3.





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 VALLEY
 SPRINGS
**EXISTING BICYCLE
 AND PEDESTRIAN
 FACILITIES**

Project No. 11159238
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FIGURE 2-3

OUTREACH

Early in the development of this Plan, multiple events and opportunities were created for the Valley Springs community to provide input and direction to guide the identification of improvements. At public workshops, pop up events, and through survey questions, residents and community members shared information on how they currently travel along with their concerns and desires for the Town Center area.



POP UP EVENT: VALLEY OAKS SHOPPING CENTER

On October 30, 2018, a pop up outreach event was held at the Valley Oaks Shopping Center. Members of the project team intercepted shoppers with a survey that gathered opinions on transportation and connectivity in the Town Center area. The brief survey was also available online, and people who declined to participate in the survey the day of the event were encouraged to do so later. A total of 21 survey responses were collected both in-person and online. Of these respondents, seven live in the study area, 11 live somewhere else in Valley Springs, and three live outside the community.

Bicycle and pedestrian safety were ranked as most important by 12 respondents, followed by reducing vehicle speeds (seven respondents), increasing transit (five respondents), and reducing congestion (four respondents).

Only five respondents said they currently walk or bicycle in the study area, and two more said they walk or bicycle elsewhere in Valley Springs. Of the 14 respondents who do not currently walk or bicycle in the community, nine cited the lack of designated bicycling and walking paths. If improvements for bicycle and pedestrian safety were made, 17 respondents said they would walk or bicycle more often.



WORKSHOP #1

A community workshop was held on December 3, 2018, to provide an overview of this planning effort, intended outcomes, opportunities for public input, and present existing conditions data for comments and feedback. Workshop attendees were invited to share comments with the project team and place colored dots on maps of existing conditions to show current challenges for different modes of transportation.

Concerns for bicycling, walking, and driving shared at the workshop were all concentrated along the two state highways as well as near Valley Springs Elementary School.

Attendees also participated in a live survey activity during the workshop. Additional responses to the survey were collected online. Responses have been consolidated and are discussed in the following section.



COMMUNITY SURVEY

Responses to the community survey were gathered both in-person at the first community workshop as well as online. A total of 162 responses to the survey were received.

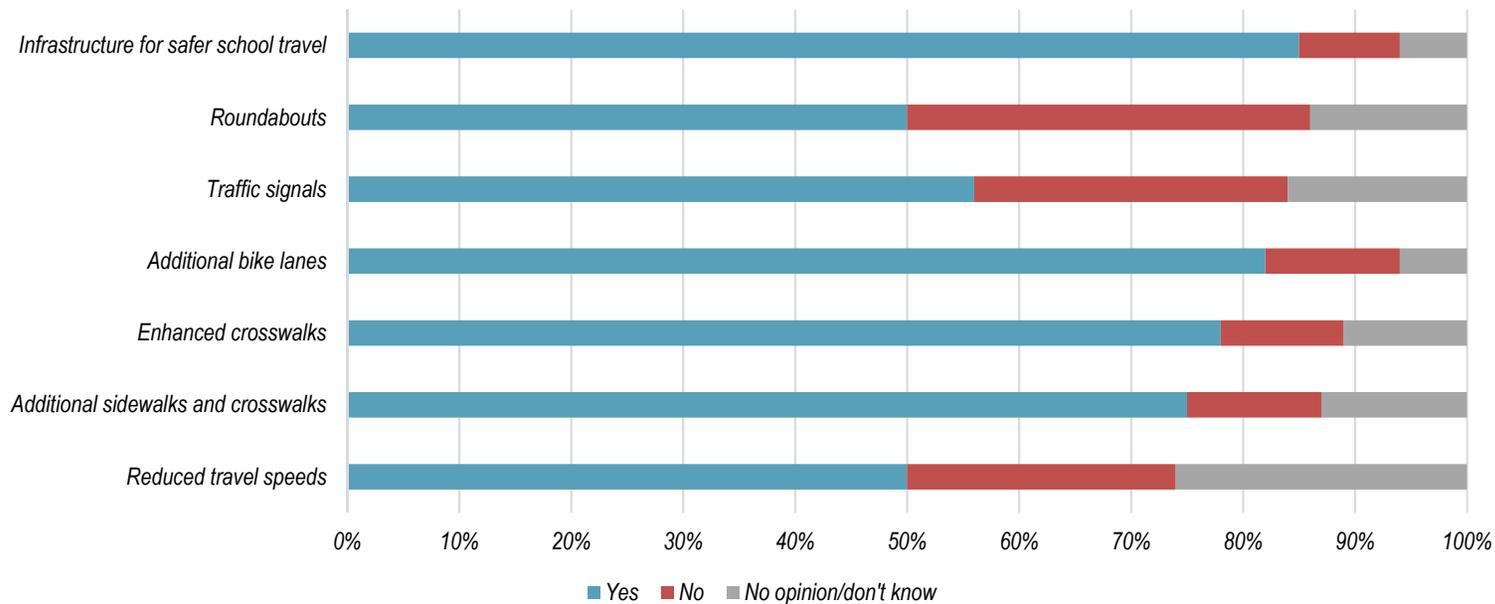
More than half of respondents to the survey identified themselves as residents of Valley Springs, confirming that responses reflect input primarily from the local community.

Shopping and recreation are the most popular reasons people currently travel to the Town Center area, each with about 30 percent of respondents stating this was their primary reason for visiting. More than half of respondents said they visit the area daily.

The survey asked respondents to identify their biggest transportation concern in the Town Center area. Bicycle Safety was the overwhelming priority with 40 votes, followed by Roadway Congestion and Pedestrian Safety with 30 and 26 votes respectively.

Finally, a series of questions asked respondents whether they would support various types of improvements in the study area. Reinforcing Safe Routes to School as a priority for this Plan, 85 percent of respondents said they would support improvements for safer school travel. Additional bicycle lanes and sidewalks, along with new and enhanced crosswalks, were also supported by more than 70 percent of respondents. All responses are shown in Figure 2-5.

FIGURE 2-5: SUPPORT FOR IMPROVEMENTS IN THE STUDY AREA



WORKSHOP #2

A second community workshop was held on March 11, 2019. Based on the needs and priorities identified during early outreach and through analysis of existing conditions, the project team presented cross sections and draft concepts showing alternatives and possible solutions. Workshop attendees were asked to share their comments on components of the various concepts presented and inform the recommended improvements that would be selected for this final Plan. These alternatives included concepts for Sequoia Avenue near the elementary school, for Laurel Street in the commercial area, for another typical local street on the grid network, and for a typical state highway location.

For Sequoia Avenue, attendees favored the concept with a wide shared-use path and landscaping that preserved 12-foot vehicle lanes and on-street parking on one side of the street. Concerns noted included drainage and exhaust from idling cars.

For Laurel Street, attendees favored a concept with diagonal parking in the center of the roadway in addition to on-street bicycle lanes and sidewalks. Comments reflected an emphasis on maintaining ample on-street parking in the town center.

For the typical grid street, attendees favored a shared use path with soft surface shoulders, on-street parking on one side of the street, and 12-foot vehicle lanes.

For the typical state highway, attendees favored a concept that included buffered bicycle lanes and sidewalks with landscaped buffers. They also noted a need for additional marked crosswalks and concerns about vehicle speeds.

Attendees were also asked to provide input on roundabouts and traffic signals at three state highway intersections in the study area. Responses were mixed, with neither option being favored for the intersection of SR 12 at the Valley Springs Shopping Center. Roundabouts were slightly favored over traffic signals for SR 12 at SR 26, and for SR 26 at Hogan Dam Road.



CHAPTER 3: NEEDS ANALYSIS

This chapter presents a summary of technical analyses and community outreach conducted to identify challenges and opportunities for improvements in the Valley Springs Town Center area. Topics evaluated include:

- » Bicyclist safety and comfort as measured by Bicycle Level of Traffic Stress
- » Pedestrian safety and comfort as measured by Pedestrian Level of Traffic Stress
- » Commute and school traffic congestion as measured by Level of Service
- » Safety as measured by average collision rates

Methods and findings are summarized in this chapter and presented in additional detail in Appendix C.

BICYCLE LEVEL OF TRAFFIC STRESS

Bicycle Level of Traffic Stress (Bicycle LTS) is an objective, data-driven evaluation of the bicycling experience on various types of streets. The analysis uses roadway characteristics like posted speed limit, street width, number of travel lanes, intersection conditions, traffic controls, and the presence and character of bikeways to determine bicyclist comfort level. The results assign a score between 1 and 4, with Bicycle LTS 1 being most comfortable and least stressful. Bicycle LTS 4 is least comfortable and most stressful. Additional detail on Bicycle LTS methodology is provided in Appendix C.

Most of the existing segments in the study area include no facilities for bicycles. The highway sections where bicycle facilities do exist include significant gaps in coverage, so the segment as a whole is still considered LTS 4. Daphne Street is the only street with bike lanes along both sides for the whole length of the segment. The streets in the neighborhood by the school have a score of LTS 2; even though they lack bicycle facilities, vehicle speeds are low and there is only one lane in each direction.

Bicycle LTS was also evaluated at unsignalized intersections in the study area, as these crossings can increase stressful conditions for bicyclists. Intersections along the two state highways received scores of LTS 2 or 3, while intersections on local streets received scores of LTS 1 due to low speeds and low traffic volumes.

Bicycle LTS results are shown in Figure 3-1. High-stress road segments and intersections currently create barriers for people bicycling along or across SR 12 and SR 26.

PEDESTRIAN LEVEL OF TRAFFIC STRESS

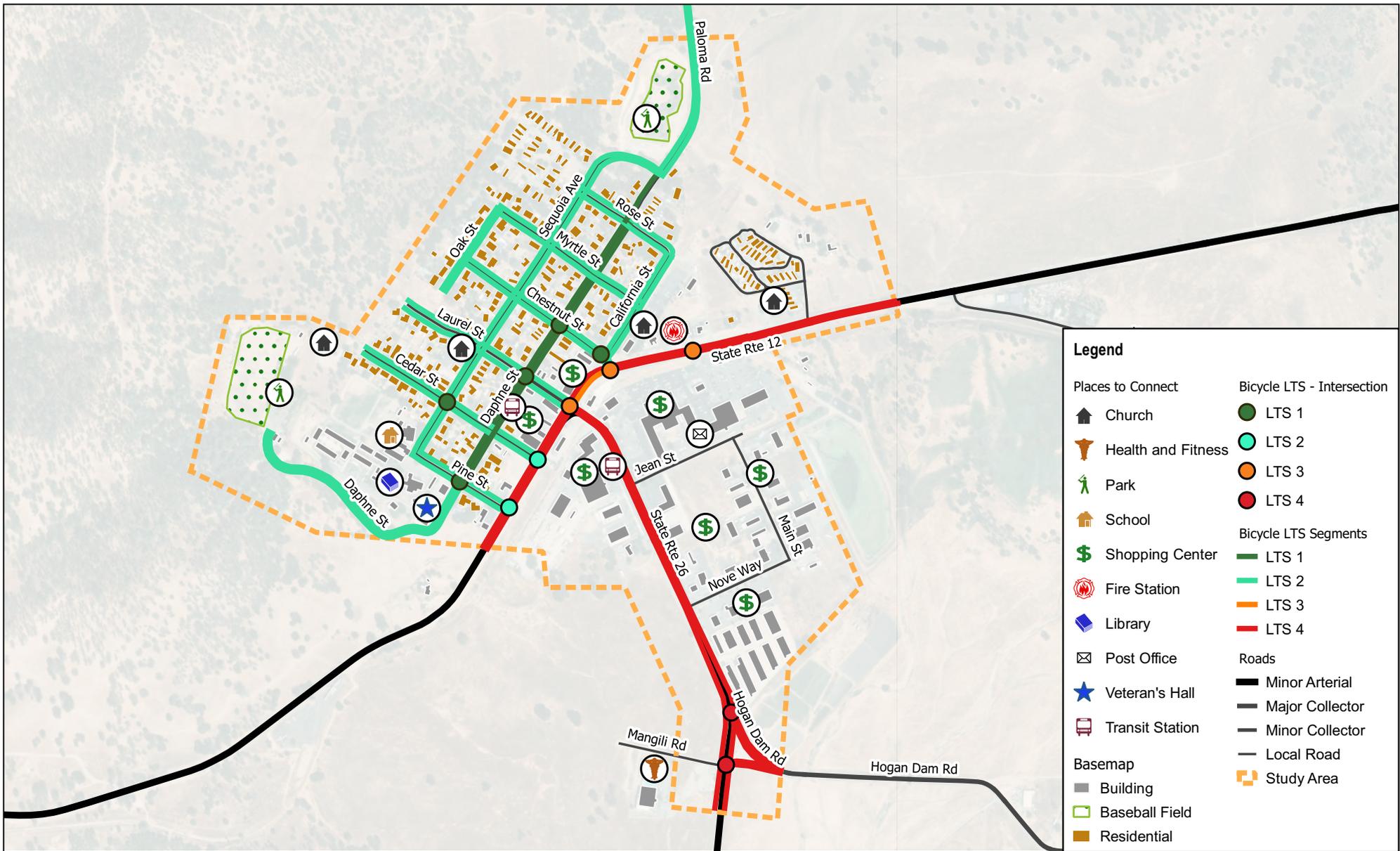
Similar to Bicycle LTS, a Pedestrian Level of Traffic Stress (Pedestrian LTS) model was used to evaluate the pedestrian experience on roadways in the study area. Pedestrian LTS considers the presence and condition of sidewalks, the separation between the sidewalk and the roadway, traffic controls, and conditions at unsignalized intersection crossings. The results assign a score between 1 and 4, with Pedestrian LTS 1 being most comfortable and least stressful. Pedestrian LTS 4 is least comfortable and most stressful. Additional detail on Pedestrian LTS methodology is provided in Appendix C.

Few sidewalks exist anywhere in the study area, leading to high-stress scores of Pedestrian LTS 4 on most streets. A few lower-stress Pedestrian LTS 2 segments exist on the east sides of SR 12 and SR 26 where sidewalks offer a place for people to walk separate from vehicle traffic.

Intersections of local streets in the residential neighborhood northwest of SR 12 received scores of Pedestrian LTS 1 due to low speeds, relatively narrow streets, and marked crosswalks in many locations. Intersections with the state highways received scores of Pedestrian LTS 3 or 4 due to higher speeds and a lack of marked crossings.

Pedestrian LTS results are shown in Figure 3-2. A lack of pedestrian facilities creates a relatively stressful experience throughout most of the study area.





Legend

Places to Connect		Bicycle LTS - Intersection	
	Church		LTS 1
	Health and Fitness		LTS 2
	Park		LTS 3
	School		LTS 4
	Shopping Center	Bicycle LTS Segments	
	Fire Station		LTS 1
	Library		LTS 2
	Post Office		LTS 3
	Veteran's Hall		LTS 4
	Transit Station	Roads	
	Building		Minor Arterial
	Baseball Field		Major Collector
	Residential		Minor Collector
			Local Road
			Study Area

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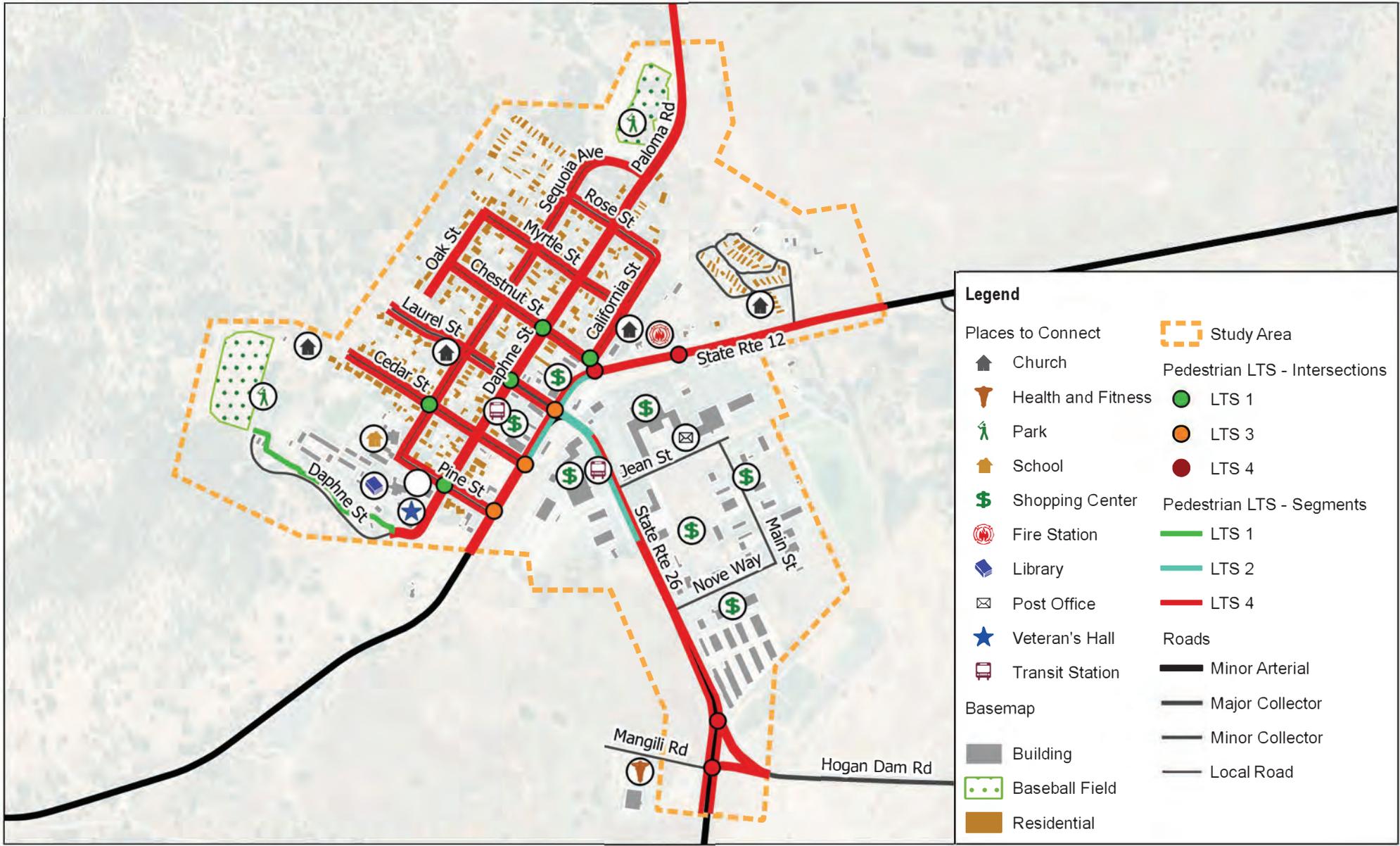
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**Bicycle Level of Traffic Stress &
 Community Trip Origins &
 Destinations**

Project No. 11159238
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 Date. 01-14-2020

FIGURE 3-1



Legend

- | | |
|--------------------|--------------------------------|
| Places to Connect | Study Area |
| Church | Pedestrian LTS - Intersections |
| Health and Fitness | LTS 1 |
| Park | LTS 3 |
| School | LTS 4 |
| Shopping Center | Pedestrian LTS - Segments |
| Fire Station | LTS 1 |
| Library | LTS 2 |
| Post Office | LTS 4 |
| Veteran's Hall | Roads |
| Transit Station | Minor Arterial |
| Basemap | Major Collector |
| Building | Minor Collector |
| Baseball Field | Local Road |
| Residential | |

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Pedestrian Level of Traffic Stress

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FIGURE 3-2

LEVEL OF SERVICE

Intersection operations for drivers were evaluated using Level of Service (LOS), a qualitative metric for traffic conditions. Grades A through F are assigned to intersections and represent progressively worsening traffic conditions. LOS is typically measured for AM and PM peak hours to capture the most congested conditions based on commute traffic. For the Valley Springs Town Center, LOS was also measured for the “school peak” to capture congestion related to student pick-up at Valley Springs Elementary School. Additional detail on LOS methodology and results, as well as traffic count collection, is presented in Appendix C.

Caltrans and Calaveras County both have policies that inform acceptable LOS. For state highways, the Caltrans policy states:

Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

The Calaveras County 2019 General Plan includes the following policy for County-maintained roads:

The policy establishes LOS C or better as acceptable for County-maintained roadways outside of Community Areas. For County-maintained roadways within Community Areas (as indicated per the General Plan Land Use map), the policy establishes LOS D or better as acceptable.

Based on these policies, intersections within the community are considered to be operating at an acceptable LOS if they are operating at LOS D or better, and intersections outside the community are considered acceptable if they are operating at LOS C or better.



EXISTING LEVEL OF SERVICE

The intersection at SR 12 and SR 26 currently operates at an unacceptable LOS in both the AM and PM peak hours, as shown in Figure 3-3 and Figure 3-4. All other intersections currently operate at or above the acceptable LOS thresholds.

While not reflected in the LOS results for the school peak hour (see Figure 3-5), substantial queues of waiting vehicles were observed on streets near the school during the peak hour. On Sequoia Avenue, the queue extended several blocks.

FUTURE LEVEL OF SERVICE

LOS was also evaluated for the increase in traffic associated with the buildout scenario in the Calaveras County General Plan. This analysis estimates the expected intersection operations after future development in the county occurs, reflecting local and regional growth as well as increased through traffic.

In addition to the intersection at SR 12 and SR 26, which operates unacceptably under current conditions, three more intersections are projected to operate unacceptably in future conditions. Unacceptable conditions at these four intersections include:

- » SR 12 at the Valley Oaks Shopping Center (LOS F in AM, PM, and School peak hours)
- » SR 12 and SR 26 (LOS F in AM, PM, and School peak hours)
- » SR 26 and Hogan Dam Road (LOS E in AM peak hour)
- » SR 26 and Mangili Road/Hogan Dam Road (LOS F in AM and PM peak hours)

A second future scenario was also evaluated which includes a bypass of Valley Springs from the west to connect SR 12 to SR 26 near Hogan Dam Road. Assuming improvements are made to the bypass intersection to accommodate the significant increase in traffic redirected away from the Town Center, all intersections along SR 12 and SR 26 are expected to operate acceptably in this scenario between LOS A and LOS C.







Map Projection: Lambert Conformal Conic
 Horizontal Datum: NAD 1983 CORS96
 Grid: NAD 1986 CORS96 StatePlane California III FIPS 0403 Ft US



CALAVERAS COUNCIL OF GOVERNMENTS
 VALLEY SPRINGS
 TOWN CENTER CONNECTIVITY PLAN

School Peak Hour
 Level of Service

Project No. 11159238
 Revision No. -
 Date: 01/14/2020

FIGURE 3-4



Legend

LOS Legend

- A
- B
- C
- D
- E
- F



Map Projection: Lambert Conformal Conic
 Horizontal Datum: NAD 1983 CORS96
 Grid: NAD 1986 CORS96 StatePlane California III FIPS 0403 Ft US



CALAVERAS COUNCIL OF GOVERNMENTS
 VALLEY SPRINGS
 TOWN CENTER CONNECTIVITY PLAN

PM Peak Hour
 Level of Service

Project No. 11159238
 Revision No. -
 Date: 01/14/2020

FIGURE 3-5

Date Source:

COLLISION RATES AND HOT SPOTS

Collision report data provides insights into locations or roadway features that have higher rates of collisions, in addition to behaviors and other factors that may contribute to collisions. To assess safety in the Valley Springs Town Center, collision data from 2006 to 2017 was reviewed and compared to statewide averages. Data was acquired from the Statewide Integrated Traffic Records System (SWITRS), a repository for the California Highway Patrol and local law enforcement agencies to upload collision reports. Detailed collision analysis methodology and data are provided in Appendix C.

A total of 152 collisions were reported in the study area during this period, including 1 collision involving a pedestrian and 3 collisions involving people bicycling. More than 80 percent of collisions occurred at intersections. There were no fatal collisions reported, but 62 collisions resulted in injuries.

Both SR 12 and SR 26 in the study area have significantly higher collision rates than the state average at 2.12 and 1.88 collisions per million vehicle miles (MVM) traveled, respectively. The state average is 1.08 collisions per MVM. Because no fatalities were reported in the study area, both highways have lower fatal collision percentages than the state average of 2.5 percent fatal collisions. SR 12 and SR 26 also have lower injury collision percentages than the state average of 49.2 percent, at 42.4 percent and 38.8 percent respectively.

Collision rates were also evaluated for intersections in the study area and compared to the statewide average of 0.16 collisions per million vehicles. The percent of collisions that resulted in injury was also compared to the statewide average of 41.3 percent (for SR 12 and SR 26, the only four-legged intersection, the comparable statewide average is 34 percent).

Caltrans and Calaveras County completed safety improvements to the intersection of SR 12 and SR 26 in 2015.

The following six intersections have higher collision rates than the statewide average of 0.16:

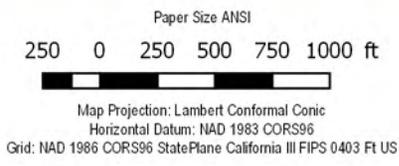
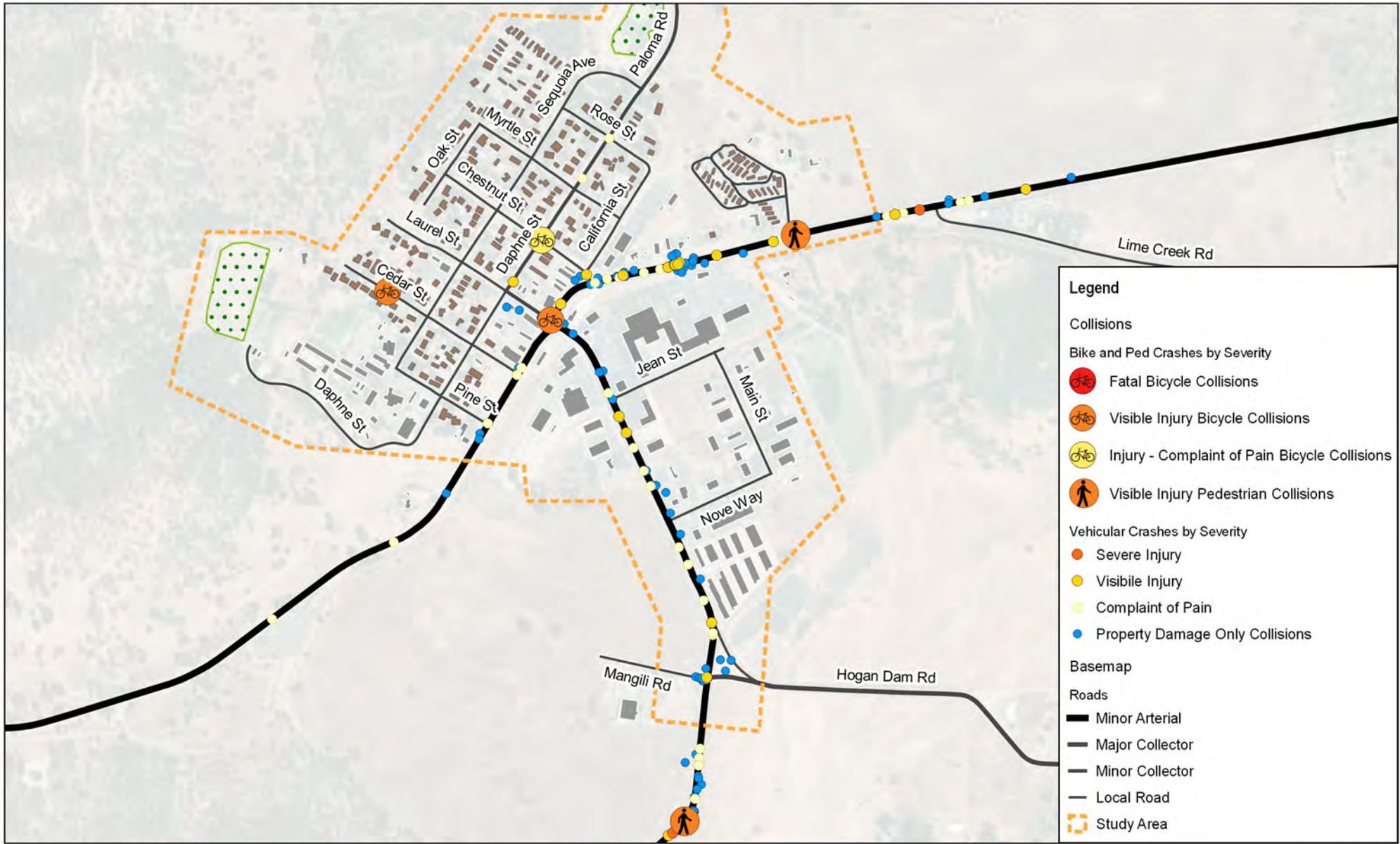
- » SR 12 & SR 26/Laurel Street (0.44)
- » SR 12 & Chestnut Street (0.39)
- » SR 12 & Valley Oaks Shopping Center Driveway (0.91)
- » SR 12 & Castle Rock Estates Driveway (0.21)
- » SR 12 & Lime Creek Road (0.30)
- » SR 26 & Hogan Dam Road (0.40)

The following five intersections have a higher injury rate than the state average:

- » SR 12 & Cedar Street (50 percent)
- » SR 12 & SR 26/Laurel Street (35.3 percent)
- » SR 12 & Castle Rock Estates Driveway (62.5 percent)
- » SR 12 & Lime Creek Road (60 percent)
- » SR 26 & Jean Street (50 percent)

All reported collisions during the study period are mapped in Figure 3-6.





CALAVERAS COUNCIL OF GOVERNMENTS
VALLEY SPRINGS
TOWN CENTER CONNECTIVITY PLAN
COLLISION MAP
(ALL, BICYCLE AND PEDESTRIAN)

Project No. 11159238
Revision No. -
Date: 01/14/2020

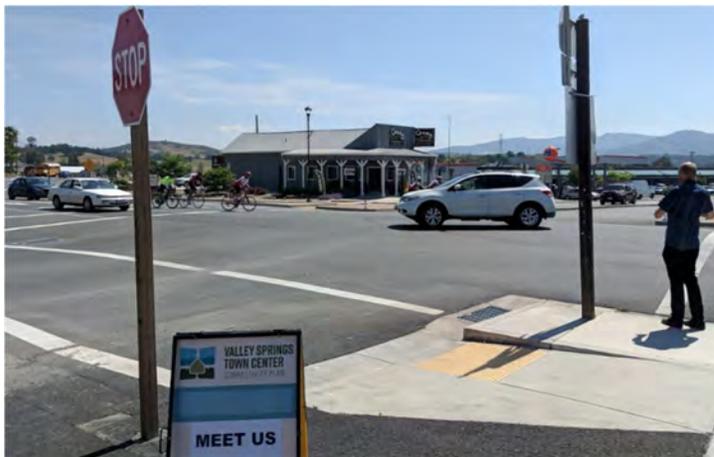
FIGURE 3-6

OUTREACH

Following the technical analyses and development of draft improvement recommendations, additional community outreach was conducted to refine and prioritize the recommendations. This community feedback is reflected in the recommended improvements described in Chapter 4.

POP UP EVENT: VALLEY SPRINGS AREA BUSINESS ASSOCIATION

A pop-up outreach event was conducted at the corner of Laurel Street and SR 12/SR 26 on May 8, 2019. Members of the project team partnered with the Valley Springs Area Business Association to invite the local business community to evaluate the draft concepts for the Town Center. Members of the business community were generally supportive of the project, and expressed a desire for on-street parking to be retained to serve their businesses. This feedback was incorporated into the revised concepts for the Town Center.



WORKSHOP #3

The third community workshop was held on May 30, 2019, to present the draft improvement recommendations to the community for review and feedback. Attendees were asked to provide comments on the draft improvements as well as their priorities within the project area. Nearly 60 percent of attendees said they generally supported the improvements shared at the workshop.

Area 5 (Highway 12 East) was voted the highest priority Area for improvements. In the project area as a whole, improving highway traffic operations and improving pedestrian connectivity were both identified as the highest priorities. Within individual project Areas, workshop attendees identified the following priorities for improvements:

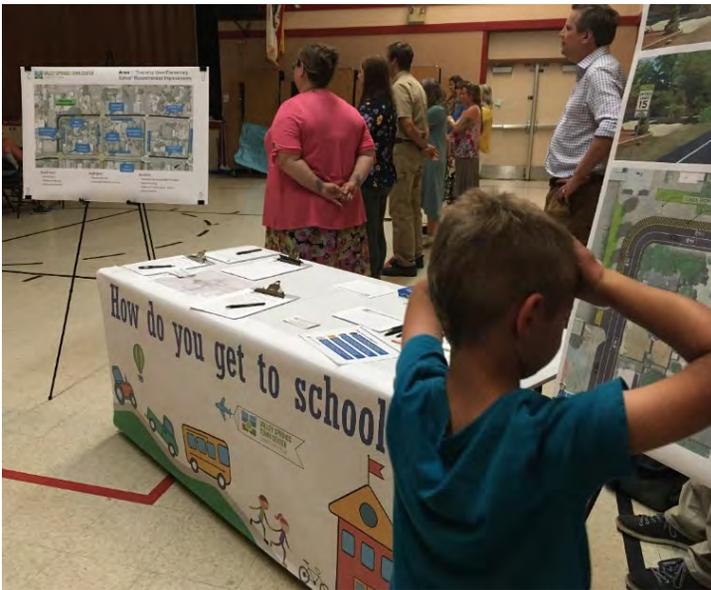
- » Area 1: Creating safe bicycling and walking spaces, and enhancing parking
- » Area 2: Creating trail connections
- » Area 3: SR 12/26 intersection improvements
- » Area 4: Sidewalks
- » Area 5: Shared use paths and crossings
- » Area 6: Bicycle lanes



POP UP EVENT: BACK TO SCHOOL NIGHT

A pop up outreach event was held at Back to School Night for Valley Springs Elementary School on August 7, 2019.

More than 30 members of the school community engaged with members of the project team. Many shared concerns about hectic drop-off and pick-up, as well as concerns about pedestrian safety due to the lack of sidewalks and need for improved crossings. In sum, 32 people signed the document in support of improvements near Valley Springs Elementary School.



SUMMARY OF NEEDS

Based on the findings of the technical analyses and public outreach conducted, improvement concepts were further explored and analyzed to recommend a cohesive set of improvements. This analysis informed the development of concepts to resolve the following identified needs:

- » Improve pedestrian safety and comfort on the state highways and near Valley Springs Elementary School
- » Improve bicyclist safety and comfort, especially along the state highways
- » Provide Safe Routes to School for students and families at Valley Springs Elementary School
- » Reduce collision rates, especially where they exceed state averages
- » Reduce peak commute and school traffic congestion as measured by LOS
- » Provide adequate downtown parking to support Town Center businesses
- » Improve multi-modal mobility throughout Valley Springs

Across all outreach events conducted, several key themes emerged that are reflected in the improvements recommended for the Valley Springs Town Center. The community is concerned about safety for people walking and bicycling, especially along the state highways and near the elementary school, and would like to see congestion and traffic speeds reduced. On-street parking is valued by the community and should be preserved where possible, especially in the commercial area along Laurel Street.



CHAPTER 4: RECOMMENDED IMPROVEMENTS

The alternative improvement concepts were refined based on community input and recommended improvements were developed for the six project Areas in the Valley Springs Town Center. Each of these Areas represents a unique set of needs and opportunities based on the character of the streets and the context of the surrounding land uses. While they may be viewed independently, together these six Areas form a comprehensive plan to increase connectivity and improve safety for all modes of transportation.

AREA ONE: TOWNSHIP WEST / ELEMENTARY SCHOOL

This area contains Valley Springs Elementary School, Valley Springs Library, Veterans’ Memorial Hall, Valley Springs Memorial Park, and a child development services center. Improvements in this area must balance school zone needs with access to residential neighborhoods and civic services. Key issues include chaotic school drop-off and pick-up conditions with vehicles backing up for several blocks, lack of sidewalks and marked crossings, and lack of bicycle facilities.

New sidewalks and shared use paths along Sequoia Avenue and Pine Street, as well as school crossings at three intersections in this area, will improve pedestrian access to these destinations. Projects in this area also include pavement markings delineating passenger loading zones adjacent to the elementary school and child development services center.

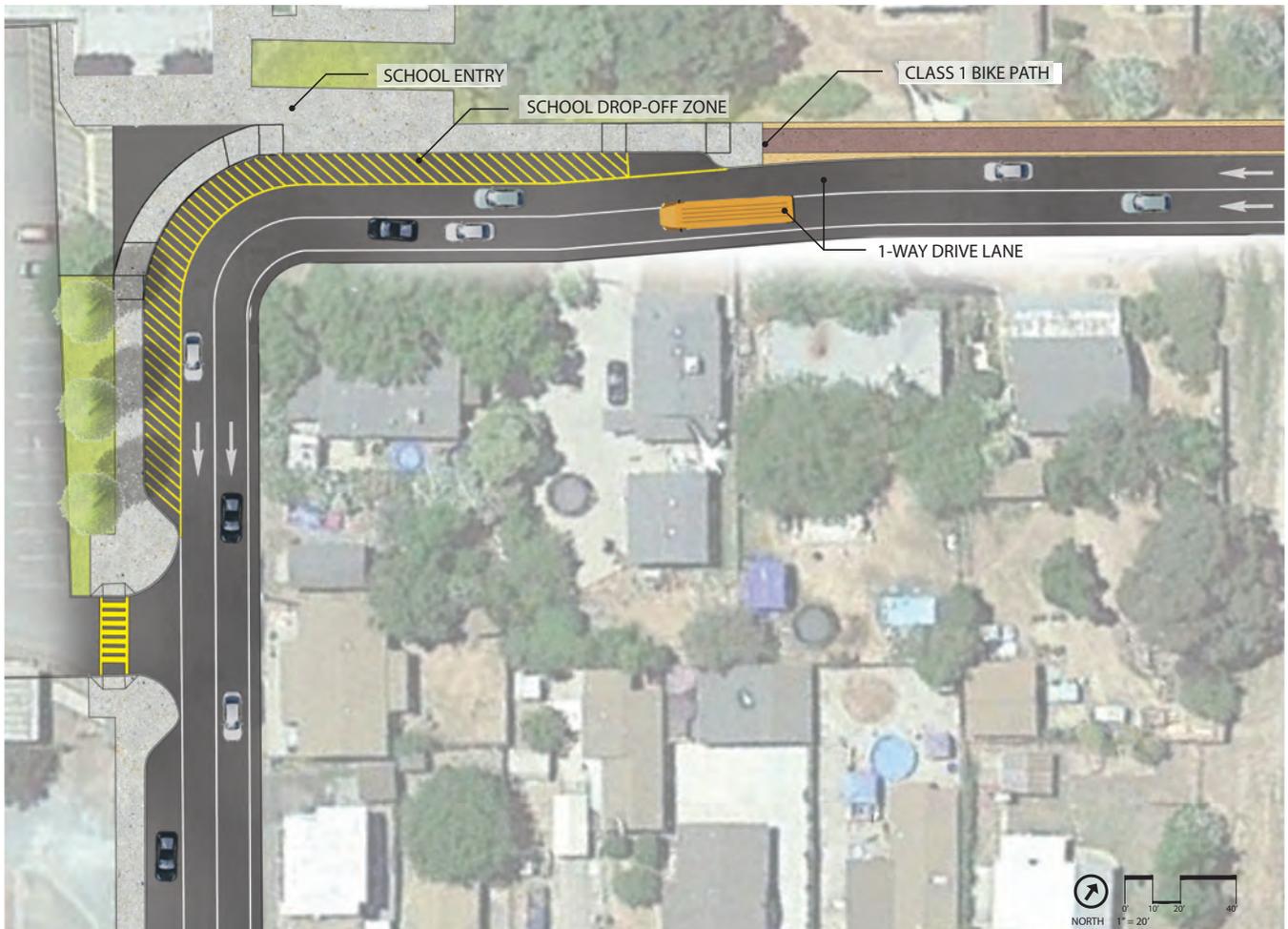
These improvements will promote walking and bicycling to school by creating safer routes, reduce idling and traffic stress, and benefit the environment by reducing emissions.

Figure 4-1 presents a map of the recommended improvements in the Township West improvement area, and Figure 4-2 presents renderings of the improvements in the school vicinity.





SEQUOIA AVENUE IMPROVEMENTS



AREA TWO: TOWNSHIP EAST

Township East primarily represents the central residential area of Valley Springs. Key issues include access from the residences to services, the nearby park, and Valley Springs Elementary School. Students who live in this neighborhood are within walking distance of the school, but families may not feel comfortable walking without dedicated paths or sidewalks.

Improvements to this area include improved crossings at most intersections, new sidewalk on one side of each street, and a new connected network of shared use paths on California Street, Daphne Street, and Sequoia Avenue, connected by the sidewalks running north to south.

The shared use paths provide connectivity and a comfortable travel space for bicyclists and pedestrians without adding too much hardscape to the residential area, helping to maintain rural character. The paths and sidewalks will support increased walking to school and reduce traffic stress. Together, these improvements will also improve air quality by shifting some driving trips to walking or bicycling instead.

Figure 4-3 presents a map of the recommended improvements in the Township East improvement area.





AREA THREE: TOWN CENTER

The Town Center includes commercial uses, the SR 12/SR 26 intersection, and serves as the gateway to Valley Springs. Several surface parking lots present challenges for people walking and bicycling, creating potential conflicts with drivers entering or exiting wide, informal driveways.

Improvements to this area include pedestrian, bike, and roadway improvements around Laurel Street and the township blocks adjacent on both sides of Laurel Street from SR 12 to Daphne Street. The projects improve intersection crossings at three intersections along Daphne Street, one of which is a school crossing intersection, as well as add a continuous sidewalk along Daphne Street. Other recommended improvements include the addition of sidewalks and marked parking on Cedar Street, Laurel Street, and Chestnut Street, which support pedestrian access to the businesses in this area.

These improvements will create a more inviting town center, supporting local economic activity. Providing walking and bicycling facilities will reduce traffic stress and encourage active transportation, contributing to a safer and healthier community.

Figure 4-4 presents a map of the recommended improvements in the Town Center area. Figure 4-5 presents renderings of the improvements on Laurel Street.





LAUREL STREET IMPROVEMENTS

EXISTING



PROPOSED



AREA FOUR: HIGHWAY 12 WEST

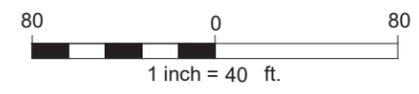
Area Four includes SR 12, which means improvements in this area are subject to Caltrans review and approval, and implementation will involve coordination and permitting with Caltrans. Key issues include pedestrian gaps, regional bicycle use, and access to commercial uses. Higher vehicle volumes and speeds on the state highway may also contribute to higher levels of stress for people walking or bicycling.

Recommended improvements include addition of sidewalk to fill gaps along Highway 12 and on Pine Street, improved crossings across Highway 12 and Pine Street, and the addition of a buffered bike lane on the south side of Highway 12, and a bike lane with conflict markings on the north side.

Providing dedicated space for people walking and bicycling, along with crossings of Highway 12 at key locations, will improve connectivity and reduce traffic stress.

Figure 4-6 presents a map of the recommended improvements in the Highway 12 West area.





AREA FIVE: HIGHWAY 12 EAST

Like Area Four, Area Five also represents a state highway facility which carries truck, motor vehicle, and regional bicycle traffic. Improvements in this area are subject to Caltrans review and approval, and implementation will involve coordination and permitting with Caltrans. Key issues include gaps in the pedestrian network, and driveway access issues, and safety concerns.

Improvement recommendations include a shared use path with buffer on both sides of Highway 12, a new traffic signal at the entry to the Valley Oaks Shopping Center, and bicycle lanes with green conflict markings on the south side of Highway 12.

These improvements provide off-street, lower-stress connectivity for people walking and bicycling while supporting on-street regional bicycle traffic. Improved crossings at priority locations will improve safety for all road users.

Figure 4-7 presents a map of the recommended improvements in the Highway 12 East area. Figure 4-8 presents renderings of the improvements in the vicinity of Valley Oaks Shopping Center entrance.





HWY 12 & VALLEY OAKS SHOPPING CENTER

EXISTING



PROPOSED



AREA SIX: HIGHWAY 26

Area Six encompasses SR 26, which is also a regional bicycle and goods movement corridor. Improvements in this area are subject to Caltrans review and approval, and implementation will involve coordination and permitting with Caltrans. Key issues include commercial uses with driveway access issues, and gaps in the pedestrian network. Improvements in this area must also be compatible with future connections to other walking or bicycling facilities, or to future development projects.

Recommended improvements include new sidewalk to fill gaps on both sides of Highway 26, new/improved crossings at Highway 26 and Nove Way, and buffered bike lanes with green conflict markings on Highway 26. The improved crossing at Highway 26 and Nove Way will include a rectangular rapid flashing beacon (RRFB) in addition to high visibility markings.

These improvements will reduce traffic stress by providing separated, dedicated space for people walking and bicycling in addition to improving safety and creating connectivity to commercial uses.

Figure 4-9 presents a map of the recommended improvements in the Highway 26 area.





CHAPTER 5: IMPLEMENTATION PLAN

This chapter presents estimated costs and strategic funding opportunities to support implementation of the recommendations in this Plan. Unit costs used to develop cost estimates and additional analysis of benefits and criteria commonly used in competitive grant funding programs are provided in Appendix D to support future applications for funding.

COST ESTIMATES

Estimated costs were calculated both for construction of the specified improvements as well as “soft costs” that include pre-construction project phases like design, environmental review, or right of way acquisition. For intersections on the state highways, an Intersection Control Evaluation (ICE) must be completed before specific improvements can be identified. Cost estimates in this Plan therefore do not include estimates for improvements to these intersections, as the improvements cannot be defined. Costs to implement the recommended improvements in each Area are summarized in

Table 5-1 below. The total estimated cost for improvements in all six Areas is \$7,800,000.

TABLE 5-1: PROJECT COSTS BY IMPROVEMENT AREA

#	Improvement Area	Construction Cost	Soft Costs	Total Project Cost
1	Township West / Elementary School Improvements	\$1,072,200	\$429,100	\$1,501,300
2	Township East Improvements	\$835,700	\$334,400	\$1,170,100
3	Town Center Improvements	\$1,041,300	\$416,700	\$1,458,000
4	Highway 12 West Improvements	\$262,700	\$105,400	\$368,100
5	Highway 12 East Improvements	\$1,417,400	\$567,100	\$1,984,500
6	Highway 26 Improvements	\$938,700	\$375,700	\$1,314,400
			Rounded Total	\$7,800,000

PARTNERSHIP OPPORTUNITIES

Many of the improvements recommended in this Plan are fully or partially within Caltrans right of way, or would provide a greater benefit if implemented in conjunction with an improvement in the Caltrans right of way. As in many other communities bisected by state highways, a partnership with Caltrans will be essential to maximize the benefit and utility of these improvements. Opportunities for partnerships include routine maintenance projects, resurfacing, safety upgrades, and Americans with Disabilities Act (ADA) compliance projects. Improvements from this Plan should be incorporated into these projects wherever feasible.

FUNDING OPPORTUNITIES

Improvements in this Plan are likely eligible for funding through the following competitive grant opportunities. Additional analysis on criteria typically used in funding programs is provided in Appendix D and may be helpful in preparing funding applications.

ACTIVE TRANSPORTATION PROGRAM

Created in 2013 by Senate Bill 99 and Assembly Bill 101, California's Active Transportation Program (ATP) funds projects that improve air quality and public health by increasing walking and bicycling trips. The program consolidated several previous funding programs to streamline the application process for communities, including the Bicycle Transportation Account, Safe Routes to School, Recreational Trails, and Transportation Alternatives. ATP funds can be used to design and construct eligible infrastructure or non-infrastructure projects, and combination projects that combine these elements.

Competitive application cycles are held approximately every two years, with the next call for project applications expected to occur in March 2020. More than \$400 million is expected to be available, distributed as follows: 50 percent of funds are allocated based on the statewide competitive process, 40 percent are allocated to Metropolitan Planning Organizations (MPOs) for regional competitive processes, and 10 percent of funds are allocated to small urban or rural regions with populations under 200,000. A minimum of 25 percent of funds in each allocation must benefit disadvantaged communities as defined by ATP guidelines.

All improvements identified in this Plan are likely to be eligible for ATP funding.

SURFACE TRANSPORTATION BLOCK GRANT PROGRAM

Funds from the Surface Transportation Block Grant Program (STBGP), formerly the Revised Surface Transportation Program, are apportioned to states to provide flexible funding that may be used to preserve or improve conditions and performance on any federal-aid highway, bridge projects on any public road, facilities for active transportation, transit capital projects, and public bus terminals and facilities. Both Caltrans and local agencies may apply for funding through this program.

All improvements identified in this Plan are likely to be eligible for STBGP funding.



HIGHWAY SAFETY IMPROVEMENT PROGRAM

Highway Safety Improvement Program (HSIP) funding is distributed to states under the Fixing America's Surface Transportation (FAST) Act. HSIP funding aims to reduce serious and fatal injuries on all public roads. Distributed by the Caltrans Division of Local Assistance, California's local HSIP funding focuses on infrastructure projects that include nationally-recognized crash modification factors. Application scoring in this program emphasizes data-driven factors and benefit-cost ratios.

Eligible projects must be located on a public road or publicly owned bicycle or pedestrian pathway or trail. Projects must identify a specific safety problem that can be corrected or substantially improved. City or County transportation planning agencies may typically apply for up to \$1 million per project. Application cycles are held approximately every other year, with the next call for project applications expected to occur in spring of 2020.

Eligible HSIP projects from this Plan include the state highway intersection improvements, and other projects implemented in conjunction with these intersection improvements provided the demonstrated safety benefit remains substantial.

CONGESTION MITIGATION AND AIR QUALITY PROGRAM

Congestion Mitigation and Air Quality (CMAQ) funds are federal funds that provide a flexible funding source to state and local governments for transportation projects and programs that meet requirements of the Clean Air Act. Funding is available for transportation projects or programs that reduce congestion and improve air quality for "nonattainment areas" that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter, and for former nonattainment areas that are now in compliance (called "maintenance areas"). Eligible projects must be included in the applicable MPO's current transportation improvement program, or in the current State Transportation Improvement Program (STIP) in areas without an MPO.

Eligible CMAQ projects include public transit improvements, high occupancy vehicle (HOV) lanes, intelligent transportation system (ITS) infrastructure, traffic management and traveler information systems, employer-based transportation management plans and incentive programs, traffic signal coordination, rideshare services, bicycle and pedestrian facilities, flexible work schedule programs, fare or fee subsidy programs, and more.

State highway intersection improvements in this Plan are likely eligible for CMAQ funding.

