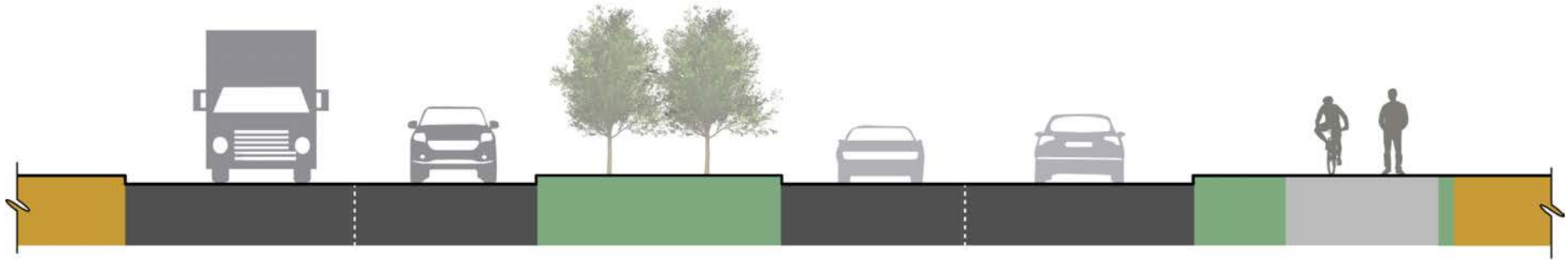

Pioneer Road Complete Streets Plan

City of Los Banos

December 11, 2020 - **PUBLIC HEARING DRAFT**

PLACEWORKS

December 11, 2020

Pioneer Road Complete Streets Plan

Pioneer Road Specific Plan | City of Los Banos

PUBLIC HEARING DRAFT

The Pioneer Road Complete Streets Plan was funded through the Caltrans Sustainable Transportation Planning Grant Program, under the original name “Pioneer Road Specific Plan.”

City of Los Banos
At the Crossroads of California

Prepared By
PLACEWORKS

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1 Introduction

Plan Vision and Purpose

The Pioneer Road Complete Streets Plan describes future improvements to the existing two-lane Pioneer Road, which is parallel to and one-half mile south of State Route 152 (Pacheco Boulevard) in the City of Los Banos. The City's General Plan designates Pioneer Road to be a four-lane arterial street to accommodate the orderly development anticipated in the General Plan. In addition to improvements to Pioneer Road, this Complete Streets Plan proposes future improvements to existing two-lane Ward Road, which runs north-south and would connect Pioneer Road to Pacheco Boulevard at the east end of the project area. Finally, this Plan includes a proposed new connection ("West Connector") between Pioneer Road and Pacheco Boulevard on the west end of the project area. The Plan is guided by the principles of "Complete Streets" – streets that are safe, comfortable, convenient, and highly functional for *all* users – including people driving, walking, bicycling, and using public transit.

North of Pioneer Road, Pacheco Boulevard is often congested, and City leaders and community members are interested in ways to relieve this congestion. After potential improvements, Pioneer Road, Ward Road, and the West Connector will serve as an alternate east-west route to highly congested Pacheco Boulevard. This connection will serve residents and local visitors, and offer an alternate route for residents and visitors, and potentially as an alternate route for travels going through Los Banos, especially at times of peak congestion. travelers going through Los Banos with the aim of reducing heavy congestion on Pacheco Boulevard during peak hours. Improvements to Pioneer Road will be designed to be attractive, safe, and accommodating for all users.

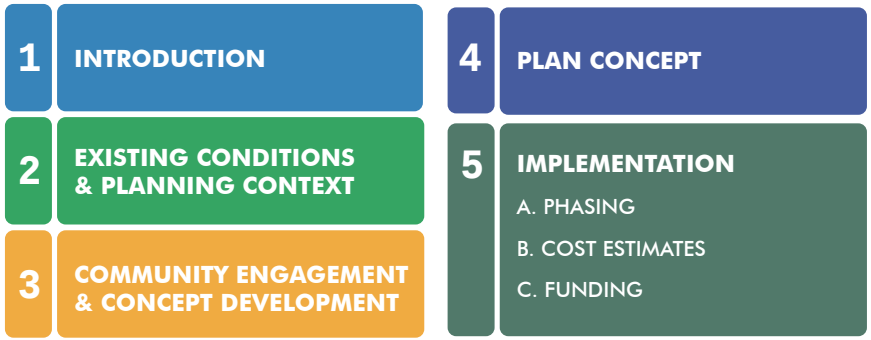
Plan Objectives

The Pioneer Road Complete Streets Plan was developed with extensive community input. During stakeholder meetings and community workshops, the following objectives were introduced and refined. These objectives helped define concepts and strategies for the future implementation of Complete Streets improvements:

- Implement General Plan policy to make Pioneer Road an arterial roadway that will accommodate existing and planned land uses.
- Provide an alternative route for Los Banos residents and users of Pacheco Boulevard.
- Make aesthetic and safety improvements to Pioneer Road and Ward Road.
- Plan for safe and comfortable pedestrian and bicycle improvements along Pioneer Road, Ward Road and the West Connector that are connected to regional multi-use trails and bike routes.
- Minimize adverse effects that roadway improvements may have on residents, property owners, agricultural operations, business owners, and other users.

The improvements to Pioneer Road are being considered concurrently with proposed improvements along Pacheco Boulevard. When Pioneer Road is widened and improved it will alleviate some of the congestion on Pacheco Boulevard, which serves as the commercial heart and "Main Street" of Los Banos. Pacheco Boulevard improvements – including safety, traffic flow, and aesthetic improvements – are covered in the Pacheco Boulevard Complete Streets Plan. Although they are separate documents, the two plans share the overarching goal of alleviating traffic congestion along Pacheco Boulevard, allowing Pacheco Boulevard to become a community asset.

Plan Organization



Plan Organization

The contents of this Plan are organized into the following chapters:

Chapter 1: Introduction

This chapter includes a description of the Plan's vision and purpose as well as a summary of the Plan's contents and organization.

Chapter 2: Existing Conditions and Planning Context

This chapter provides an overview Pioneer Road's regional and local context and includes the following components:

1. Description of the route's local significance in the southern part of Los Banos serving residents, businesses, and agricultural operations
2. Summary of existing land uses and demographics in the Pioneer Road Study Area
3. Assessment of existing vehicle, pedestrian, and bicycle infrastructure along Pioneer Road
4. Overview of relevant planning and policy documents
5. Safety analysis

The chapter concludes with a summary of existing key issues and opportunities to be addressed with improvements proposed in Chapter 4 of this Plan.

Chapter 3: Community Engagement and Concept Development

This chapter describes how engagement with Los Banos residents, business owners, workers, community leaders, and public/private agencies was an integral aspect of developing the proposed concepts presented in the Plan. The engagement effort was organized in three major phases and community members had opportunities through both online and in-person interfaces to submit input and stay connected throughout Plan development. The chapter outlines engagement strategies that guided

the Plan's development, summarizes input received from the Los Banos community, and describes how the concepts presented in this report were developed and refined based on community feedback.

Chapter 4: Plan Concept

This chapter outlines the proposed concept improvements for Pioneer Road, including north-south connections to Pacheco Boulevard, which address issues and opportunities determined through the analysis of existing conditions and engagement with community members. Draft Concepts were initially developed following the first round of community engagement, refined following the second phase of community engagement, and refined again following the third phase. The final set of Plan Concepts presented in this chapter is the end result of this process.

This chapter is organized into five sections:

- Route Overview
- Typical Roadway Configuration
- Concept Visualizations
- Roadway Design Concepts
- Concept Alignments

Chapter 5: Implementation

This chapter provides a summary of the next steps required for implementation of the Pioneer Road improvements, including considerations from planning through construction. It includes cost estimates for improvements, identifies funding sources and grant opportunities, and presents timelines for project implementation.

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2 Existing Conditions and Planning Context

This chapter summarizes the existing physical features, planning context, safety characteristics, and demographics of the Plan Area. The chapter concludes with a list of key opportunities and constraints that, along with community and stakeholder input, supported the formation of Plan goals, objectives, and Plan Concepts presented in Chapter 4.

Pioneer Road is a two-lane roadway that often travels through farmland.

The Intersection of Pioneer Road and Center Avenue has a four-way stop.

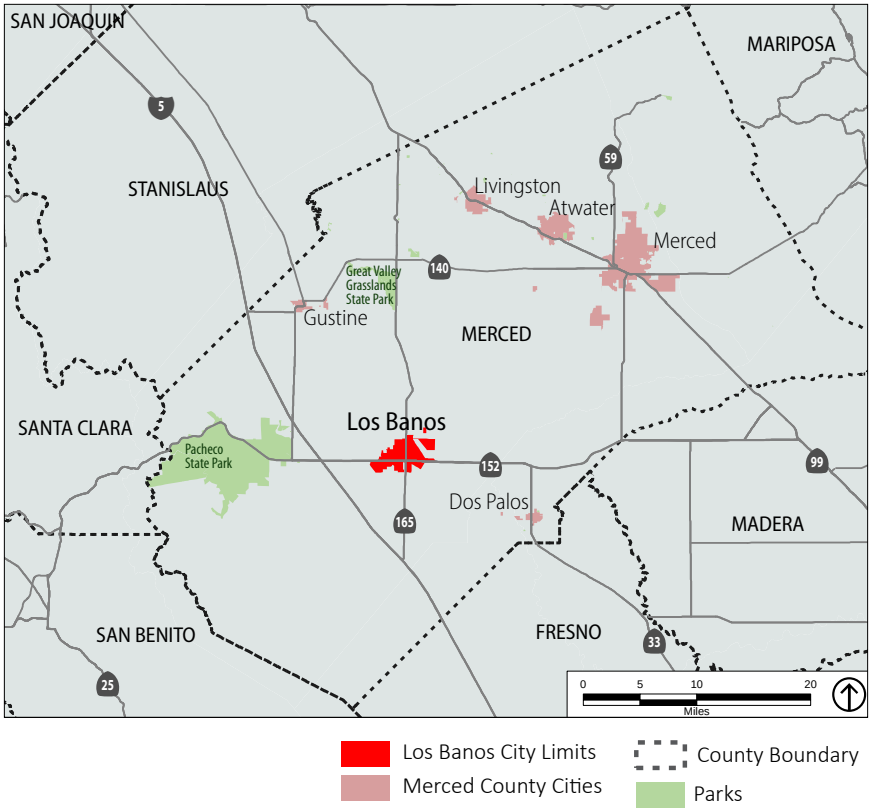
Plan Area Review

City and Regional Context

Los Banos is located in Merced County, a mostly rural county located in the northern San Joaquin Valley region of California's larger Central Valley (Figure 2.1). To the east of Merced County are major recreational destinations like the Sierra National Forest, Yosemite Valley, and Mono Lake. West of Merced County, California's Central Valley region transitions into the Monterey Bay coastline. Approximately 25 miles northeast of Los Banos is the City of Merced – the County seat – with a population of approximately 83,000 people. The City of Merced contains the newest University of California Campus, UC Merced, with approximately 8,000 undergraduate students. Merced County's other incorporated cities include Los Banos, Atwater, Livingston, Gustine, and Dos Palos. These cities are significantly smaller than the City of Merced, with populations of 38,000, 30,000, 13,000, 6,000, and 5,500, respectively, as of the 2010 U.S. Census.

Most cities in Merced County, including Los Banos, have historically been characterized as small farming communities since their incorporation. The City of Los Banos has grown significantly within the last two decades, transitioning from a smaller, primarily agricultural town to the bustling, full-service community it is today. The population of Los Banos is currently around 40,000. While most of the land area in Merced County and in the Central Valley region generally is dedicated to agriculture, the City of Los Banos itself is largely comprised of single-family neighborhoods, with commercial uses heavily concentrated along the Pacheco Boulevard corridor.

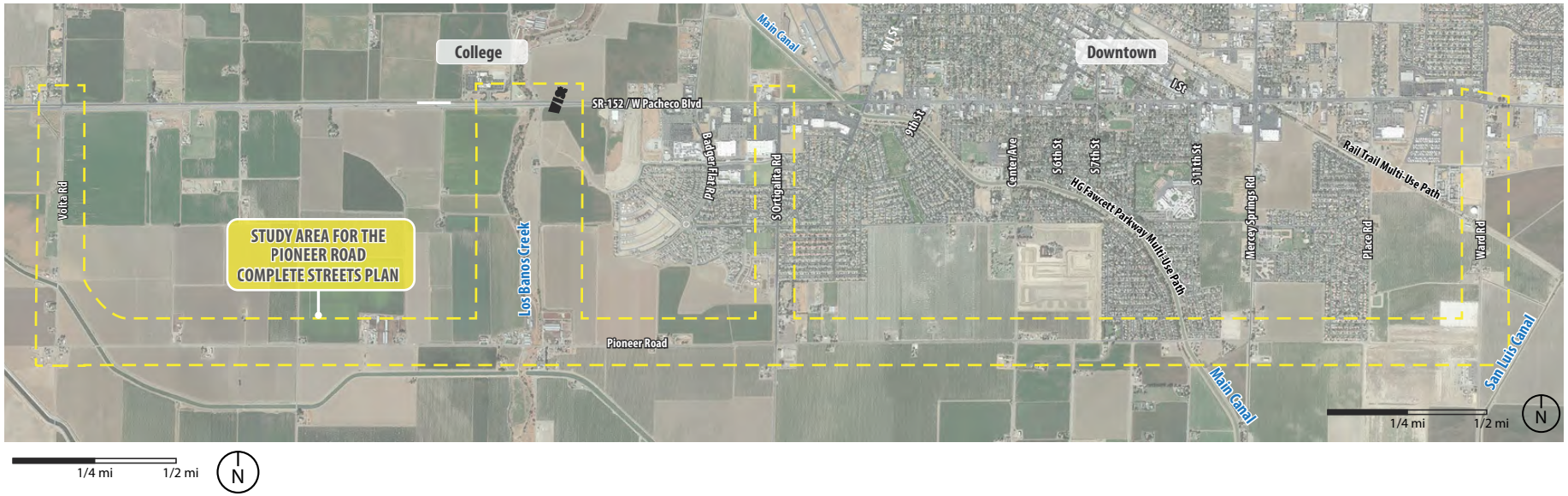
Figure 2.1 Regional Context



Plan Area Description

Pioneer Road is located at the southern edge of the City, running east-west one mile south of SR-152/Pacheco Boulevard. Pioneer Road is largely surrounded by farmland on either side, with some residential development located within the City of Los Banos along the road's north side.

Figure 2.2 Initial Plan Area Boundaries



As shown in Figure 2.2, the initial Plan Area for the Pioneer Road Complete Streets Plan had several primary components. During the process of developing the Plan and in response to community input, some of the initial Plan Area did not receive further study following early stages in the planning process. The initial Plan Area components are listed below (roughly from west to east), with ***italicized*** text noting which areas were incorporated in the final Plan Concept presented in Chapter 4 of this Plan.

- A stretch of mainly farmland on either side of Los Banos Creek connecting Pioneer Road to SR-152/Pacheco Boulevard. ***The Final Concept includes a north-south roadway connection located to the east of Los Banos Creek.***
- An approximately 3.25-mile-long segment of Pioneer Road from an area about 1,500 feet west of Los Banos Creek eastward to Mercey Springs Road, where the road currently ends. ***The Final Concept begins at a location approximately 1,500 feet east of Los Banos Creek.***
- Ortigalita Road between Pioneer Road and Pacheco Boulevard, which was also studied for a potential north-south connecting road. ***The Final Concept links to Ortigalita Road, which will remain an important connection between Pioneer Road and Pacheco Boulevard.***
- A potential Pioneer Road extension from Mercey Springs Road to Ward Road.
- Ward Road northward from Pioneer Road until intersecting with Pacheco Boulevard.

Some parts of the Plan Area are within the City of Los Banos, while other segments are entirely outside of City boundaries in the jurisdiction of Merced County. Most of this County land lies within the City's Sphere of Influence.

General Overview of Transportation Facilities

The 2030 Merced County General Plan (published in 2013) classifies the full stretch of Pioneer Road as a "Minor Arterial", with one lane in each direction. The full seven-mile length of Pioneer Road begins on the west side at the intersection with Volta Road in unincorporated Merced County, near Interstate 5. At the east end, Pioneer Road terminates in a T-intersection with SR-165/Mercey Springs Road. intersects SR165/Mercey Springs Road.

The Infrastructure Analysis section of this chapter describes transportation characteristics of Pioneer Road within the original Study Area from just west of Los Banos Creek to Mercey Springs Road.

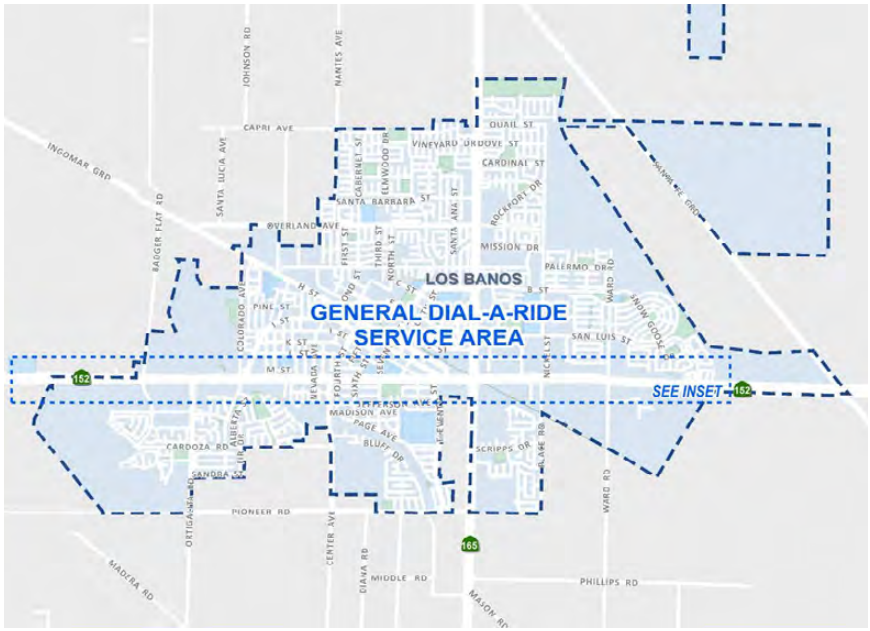
Public Transit

The Merced County Association of Governments (MCAG) manages "The Bus," which is the single public transportation service provider for Merced County.

The City of Los Banos is served by a commuter route between Los Banos and Merced (the Los Banos Commuter), a dial-a-ride service for the general public within Los Banos Limits, and two intercity routes that switch between fixed-route service and dial-a-ride paratransit service according to defined zones (The Dos Palos Link and the G-Gustine Link). All fixed-route transit service in Los Banos stops at the Merced Community College Los Banos Campus, located at the northwest boundary of the Plan Area. For the most part, fixed-route transit in Los Banos runs primarily along SR-152, deviating slightly to the north or south depending on the route.

Currently, there is no fixed-route transit service in Los Banos serving Pioneer Road, so the only part of the Plan Area served by fixed-route transit is the northwestern Plan Area boundary abutting Merced Community College.

Figure 2.3 Los Banos Dial-A-Ride Service Area



There are no transit stops directly within the northeastern boundary of the Plan Area where Ward Road intersects SR-152, but all three fixed routes through Los Banos serve a stop by the Food 4 Less shopping center approximately one-third of a mile east of this intersection.

The Los Banos Dial-a-Ride service (Figure 2.3) – a paratransit service and a dial-a-ride service for the general community – operates within Los Banos City Limits and serves areas just outside of the City such as the College and areas south of Pioneer Road.

Land Use and Development in the Plan Area

As mentioned in the Plan Area Description above, most land in the Pioneer Road Plan Area is within City Limits while some is outside the City in unincorporated Merced County. In addition, some of the land in unincorporated Merced County is within the City's Sphere of Influence (SOI).

Current Land Uses

As shown in Figures 2.4 through 2.12, properties in the Plan Area include agricultural lands, commercial operations, single residences, and subdivisions with single-family residences that are part of existing and planned private developments in various stages of buildout. One property along the north side of Pioneer Road near Black Hills Avenue is a park serving the nearby residential development.

Although most of the land within City Limits in the Plan Area can be characterized as more developed than the County land, there are several exceptions to this pattern. First, three large parcels along the north side of Pioneer Road at the western end of the Plan Area between Ortigalita Road and Los Banos Creek are within City Limits but are currently used for agriculture. There is planned development for this site. The east end of the Plan Area also contains an agricultural property within City Limits. This property is located on the north side of Pioneer Road, just east of where Pioneer Road terminates at the intersection with Mercey Springs Road.

Land within the Plan Area that is not within the City Limits generally remains either unimproved or used for cultivating crops such as almonds, alfalfa, cotton, and citrus.

Future Land Use Designations

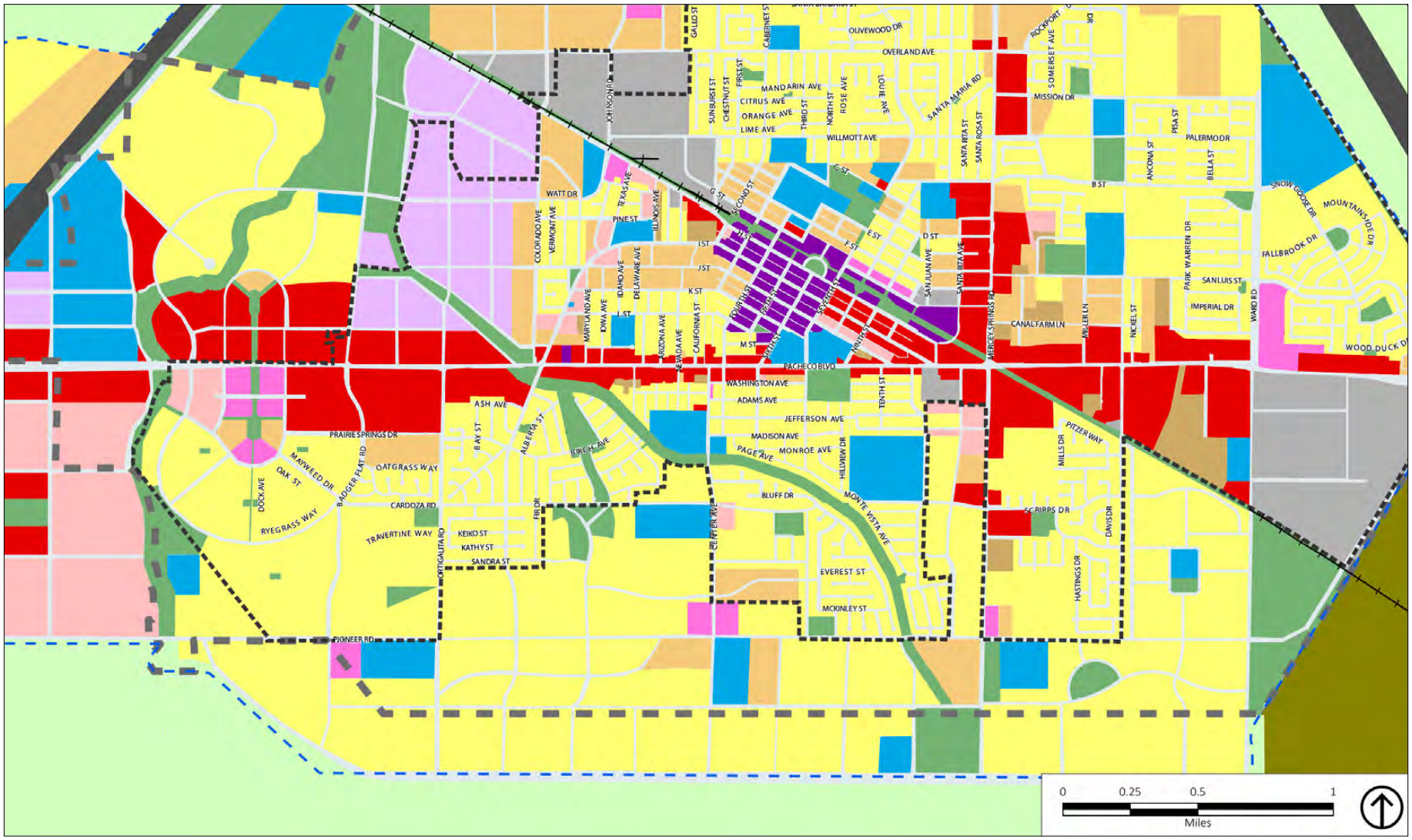
Almost all land within the Plan Area lies within two jurisdictions: within Los Banos City Limits, or in Merced County within the Los Banos Sphere of Influence (SOI). Land uses within the SOI may have a different designation in the City's General Plan than the County's designation for the same lane. The County designation governs.

Pioneer Road has a center turn lane at Blue Ridge Avenue for entering a residential neigborhood (looking east).

Agriculture is a common land use along Pioneer Road and Ward Road.

In the Plan Area, the County's land use designations are generally for agricultural uses, while the City's General Plan designations are for residential, civic/institutional, park or commercial land uses. Figure 2.4 shows the future land use designations according to the City's General Plan. Enlarged segments on the following pages show both existing conditions as depicted in aerial photographs, as well as future land use designations for each of the four segments in the Plan Area.

Figure 2.4 General Plan Land Use Designations



Source: ESRI, 2018; City of Los Banos, 2018; Merced County, 2018

Figure 2.5 Existing Land Use – Segment 1

Figure 2.6 General Plan Land Use Designations – Segment 1

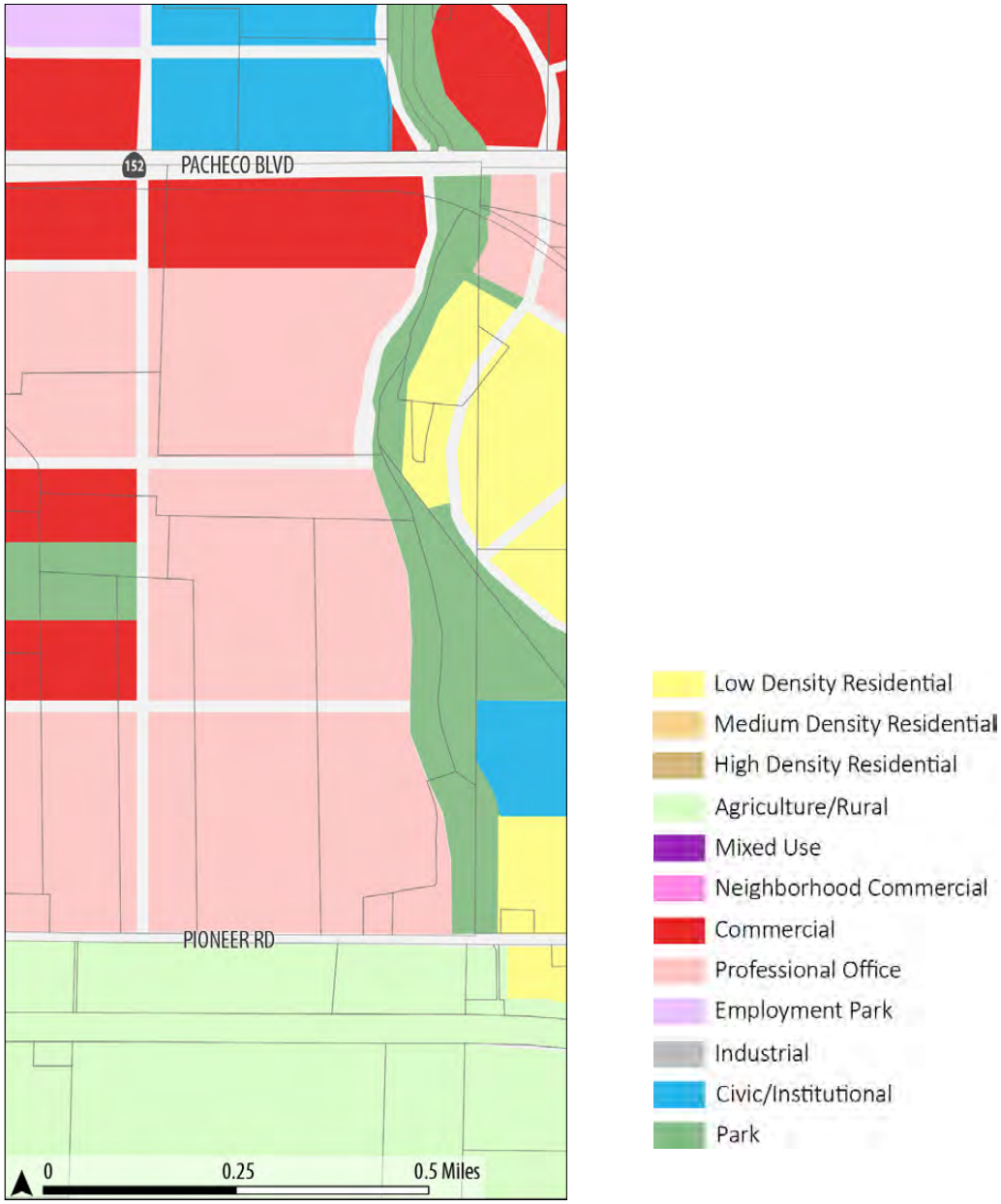


Figure 2.7 Existing Land Use – Segment 2

Figure 2.8 General Plan Land Use Designations – Segment 2

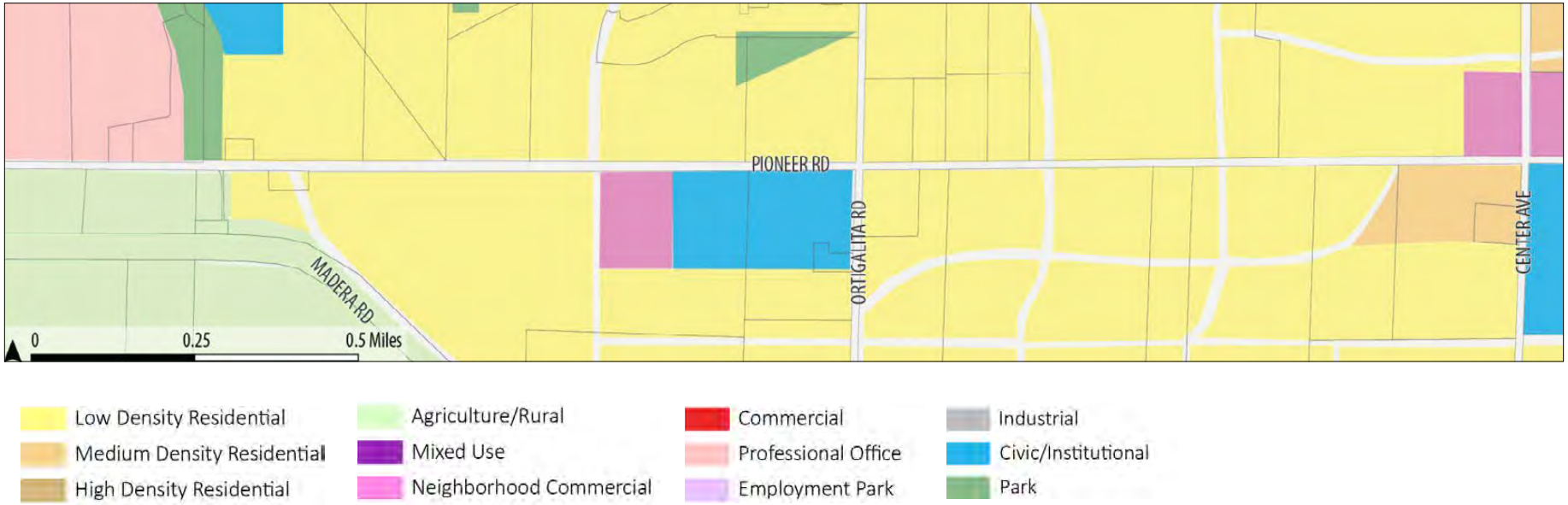


Figure 2.9 Existing Land Use – Segment 3

Figure 2.10 General Plan Land Use Designations – Segment 3

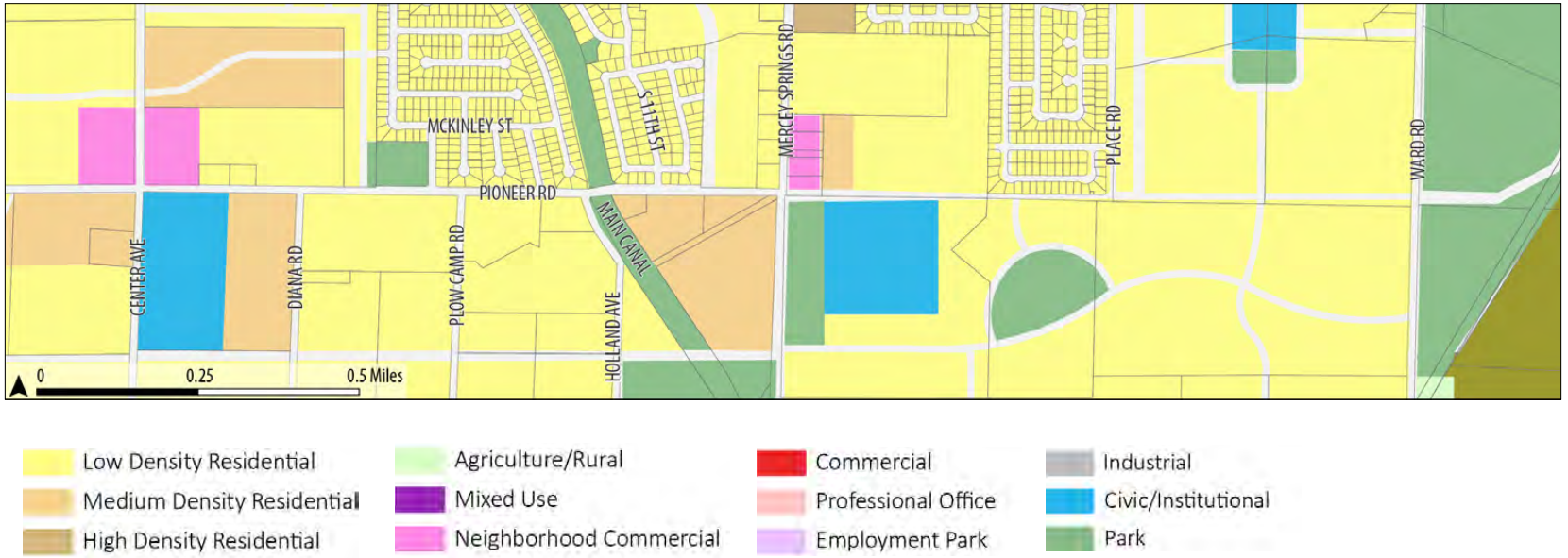
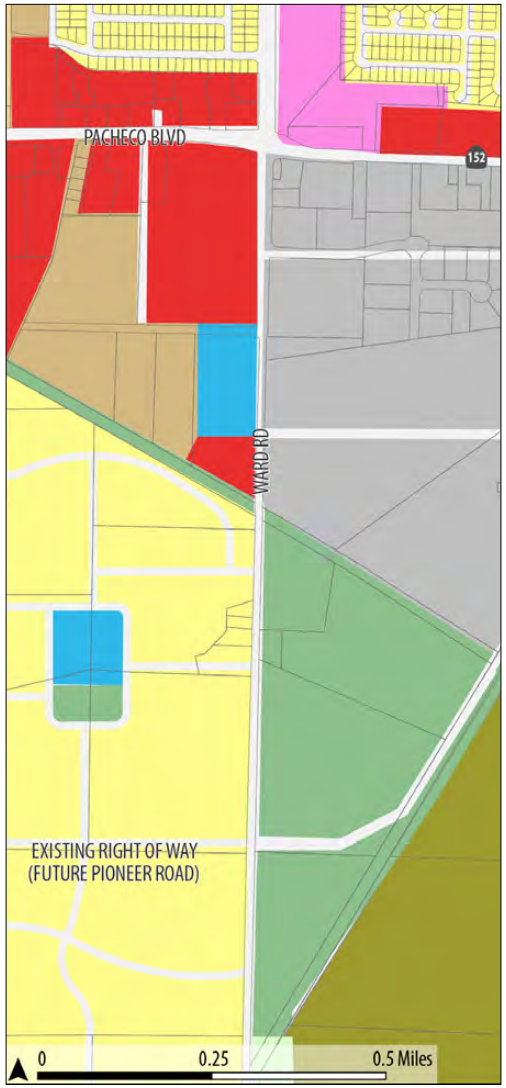


Figure 2.11 Existing Land Use – Segment 4

Figure 2.12 General Plan Land Use Designations – Segment 4



Demographic and Socioeconomic Characteristics

The demographic profile presented in this chapter uses data from the American Community Survey (ACS) 5-year estimates (2013-2017), unless otherwise noted.

Population Trends

The current population of Los Banos is around 40,000, making it the second-most populous city in Merced County after the City of Merced. The population of Los Banos remained under 5,000 until 1960, when it reached 5,272 residents. As shown in Figure 2.13, the population grew faster during the decade between 1960 and 1970 until slowing down again (but still increasing by 13%) between 1970 and 1980. The most dramatic population growth in Los Banos occurred between 1990 and 2010, during which the population more than doubled from around 15,000 to almost 36,000. By contrast, Merced County's population as a whole has been increasing more steadily at an average of 30% per decade since 1920, which is mostly attributable to the City of Merced which currently has a population of around 83,000.

The growth rate projections shown in Figure 2.14 were produced in a report from the University of the Pacific in 2016. They project that the population of Los Banos will grow at a steady rate from 2020 to 2060, increasing by approximately 10% per year.

Figure 2.13 Population Growth in Los Banos and Merced County, 1920-2010

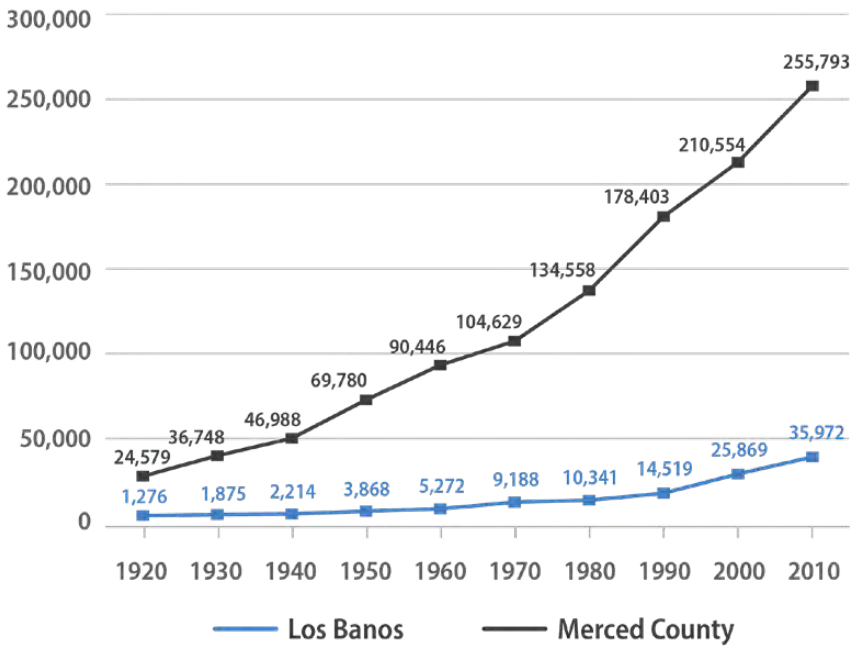


Figure 2.14 Los Banos Population Projections, 2020-2060

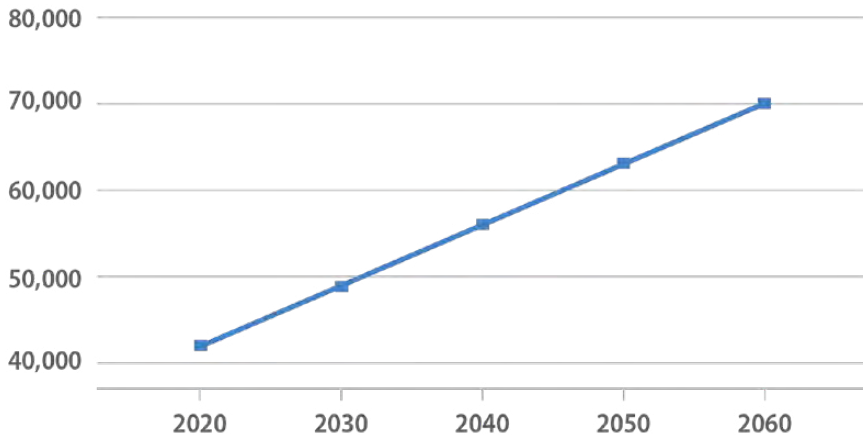


Figure 2.15 Los Banos Age Distribution

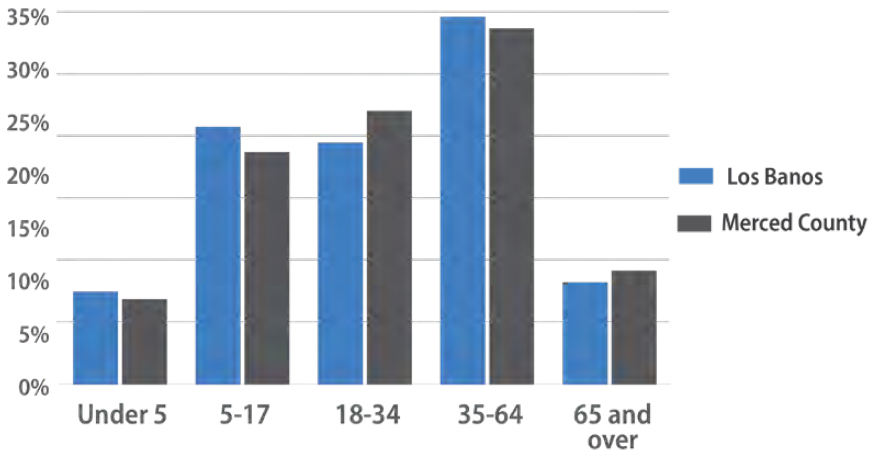


Figure 2.16 Los Banos Race and Ethnicity

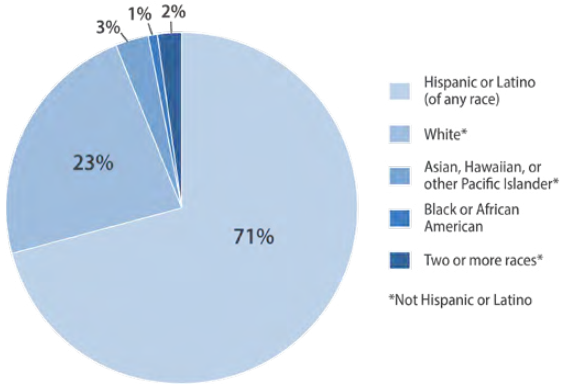
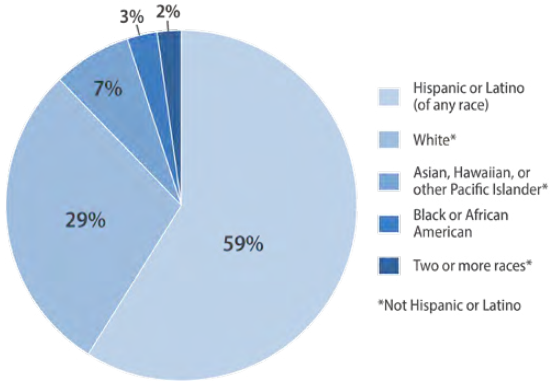


Figure 2.17 Merced County Race and Ethnicity



Age Distribution

In terms of age, the population in Los Banos is distributed similarly to that of Merced County as a whole (Figure 2.15). Children under 18 constitute roughly one third of the entire population for both the City and the County. Approximately 23% of California's entire population is under 18 of age according to estimates as of 2017, so both Los Banos and Merced County have slightly higher-than-average youth populations compared to the State. The City and County also have slightly lower-than-average shares of retirement-age population, at roughly 10% compared to the statewide estimate of 14%.

Race and Ethnicity

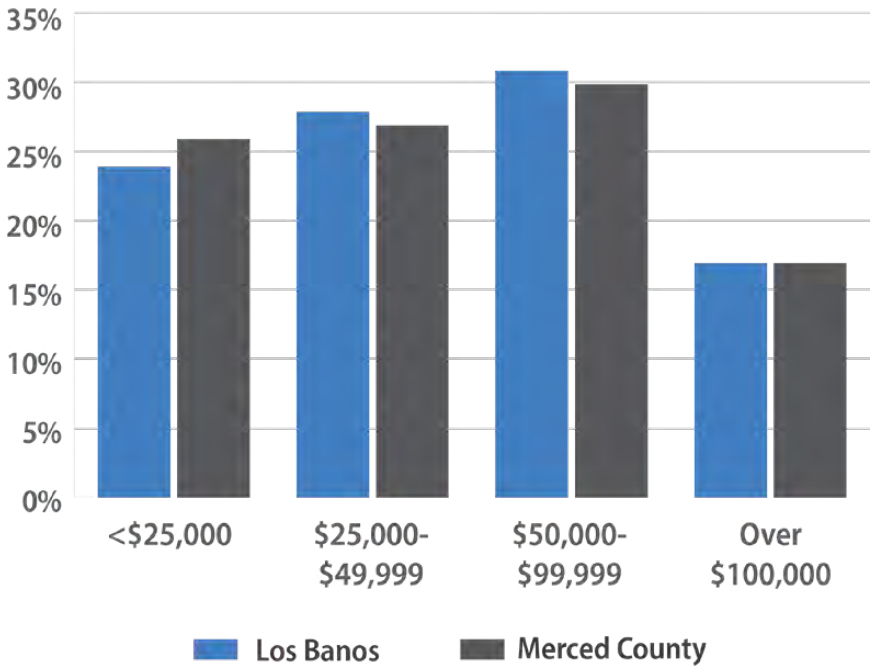
As shown in Figures 2.16 and 2.17, the share of Los Banos residents who identify as Hispanic or Latino is roughly 10% higher than the share of Merced County residents (of any race). Merced County as a whole appears to have a slightly higher percentage of residents who identify as any other (non-Hispanic or Latino) race or ethnicity compared to Los Banos, but these differences are not statistically significant. In general, both Los Banos and Merced County have low shares of the population who identify as Black or African American, Asian, Hawaiian or other Pacific Islander, or who identify as mixed-race.

Compared to Los Banos and Merced County, a significantly larger share residents statewide (about 14%) identify as Non-Hispanic Asian, Hawaiian or Pacific Islander. The share of the statewide population that identifies as Black or African American or as mixed-race is similar to the shares for Los Banos and Merced County, at 5% and 3% respectively.

Language and Limited English Proficiency

43% of households countywide speak primarily Spanish, with 5% speaking other Indo-European languages, and 5% speaking Asian and Pacific Islands languages. Of all households in Merced County, 13% report being "limited English-speaking," meaning most members of the household speak English

Figure 2.18 Household Income



less than "very well." Of limited-English speaking households in Merced County, 26% speak primarily Spanish, 21% speak other Indo-European languages, 15% speak Asian and Pacific Island languages, and the rest of limited-English speaking households in Merced County speak other languages.

In Los Banos, 46% of households speak primarily Spanish, with 4% of households speaking other Indo-European languages, and 3% speaking Asian or Pacific Island languages. Of all households in Los Banos, 20% report being "limited English-speaking." Of these limited English-speaking households in Los Banos, 40% speak primarily Spanish, 30% speak Asian and other Pacific Island languages, 18% speak other Indo-European languages, and 33% speak other languages.

Table 2.1 Means of Transportation to Work		
Mode	**Los Banos**	**Merced County**
Drove Alone	81%	79%
Carpooled	13%	11%
Public Transit	1%	1%
Walk	1%	2%
Biked	0.4%	0.4%
Other*	1%	3%
Worked from Home	3%	3%

*Includes motorcycles and taxicabs. The U.S. census has yet to include ride-hailing services. Source: 2017 ACS 5-Year Estimates (2013-2017)

Household Income

According to 2017 American Community Survey 5-year estimates, Los Banos and Merced County as a whole are almost identically distributed by income bracket (Figure 2.18). Roughly a quarter of Los Banos and Merced County residents make less than $25,000 per year in 2017 inflation adjusted dollars. Another quarter makes between $25,000 and $50,000 per year, 30% make between $50,000 and $100,000 per year and 17% of residents make over $100,000 per year.

The median income for households in Los Banos and for households in Merced County are also roughly equivalent, at $46,994 and $46,338, respectively. These figures are significantly lower than the statewide median household income, estimated at $71,805 in 2017.

Means of Transportation to Work

Residents in Los Banos and countywide overwhelmingly drive alone to work, at 81% and 79% respectively (Table 2.1). Very few residents in the City or County walk, bike, or use transit to get to work. Statewide, approximately 74% of workers 16 years and older drive alone to work, so the share of commuters who drive alone in Los Banos and in Merced is slightly higher than the statewide average according to 2017 ACS estimates.

Employment by Industry

According to the 2017 Longitudinal Employer-Household Dynamics program administered by the U.S. Census, Los Banos has a slightly higher share of residents employed in the Arts, Entertainment, Recreation, Accommodation and Food Service Industries compared to Merced County as a whole (Table 2.2). In large part, however, the City and County are similarly distributed between industry sectors, with roughly 17% of both populations working in heavy industrial sectors like manufacturing, oil and gas extraction, or mining.

Notably, Los Banos (and the County as a whole) have relatively low shares of their populations working in information-related, professional, scientific and technical services compared to other regions in California, but relatively higher shares of the population working in agricultural or heavy industrial sectors. Statewide, over 11% of the employed population over 16 years of age works in information-related, professional, scientific or technical services sector, while less than 8% work in heavy industrial sectors like manufacturing, mining, or oil and gas extraction, and 2.3% work in agricultural sectors.

Table 2.2 Employment by Industry in Los Banos and Merced County		
Industry	**Los Banos**	**Merced County**
Agriculture, Forestry, Fishing and Hunting	10%	12%
Heavy Industry*	16%	17%
Light Industry**	6%	7%
Construction	6%	5%
Information, Professional, Scientific and Technical Services	4%	3%
Finance and Insurance, Real Estate, Rental and Leasing	2%	3%
Utilities, Waste Management and Remediation	6%	5%
Educational Services	12%	12%
Health Care and Social Assistance	11%	12%
Arts/Entertainment, Recreation, Food Service, Accommodation	12%	9%
Retail Trade	13%	11%
Other Services (excluding Public Administration)	3%	2%
Public Administration	4%	4%

* Includes manufacturing, mining, quarrying, and fossil fuel extraction
** Includes transportation/logistics, warehousing, and wholesale trade
Source: 2017 ACS 5-Year Estimates (2013-2017).

Vehicle Availability Per Household

Merced County and Los Banos have a nearly identical distribution of vehicles available per household. Most households in both geographies have between one and two vehicles available, not accounting for household size or household type (family or non-family). Seven percent of households in both Los Banos and in the entire county do not have access to a vehicle at all. This distribution of household vehicle access is the same for the entire state, with 7% of households having no access to a vehicle, 31% with access to one vehicle, 37% with access to two vehicles, 17% of households with access to three vehicles and 8% of households with access to four or more vehicles.

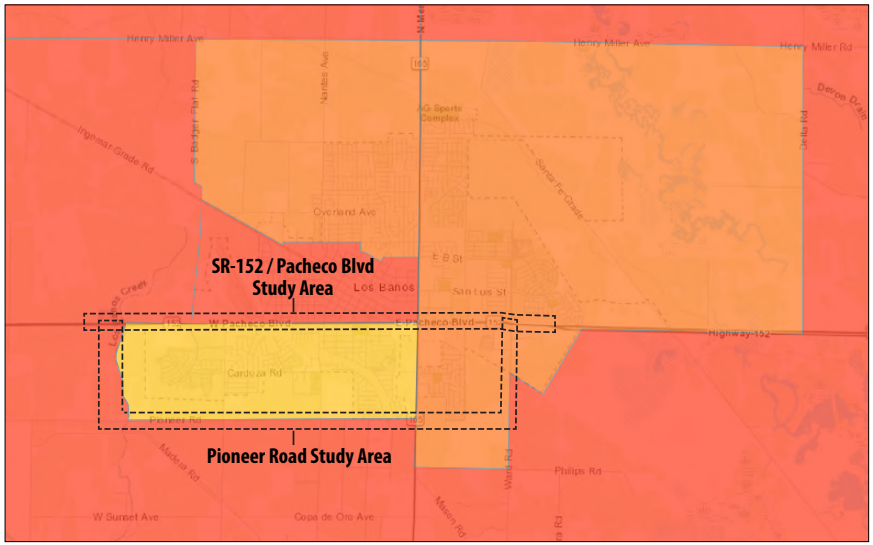
Environmental Factors

CalEnviroScreen is a mapping tool that helps identify California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. The tool was developed by the Office of Environmental Health Hazard Assessment (OEHHA) and the California Environmental Protection Agency (CalEPA). CalEnviroScreen uses environmental, health, and socioeconomic information to rank census tracts by score, with higher scores suggesting higher pollution burden and vulnerability. Some statewide transportation funding sources, such as the Cap-and-Trade Program and the Active Transportation Program are specifically intended for communities identified as having high pollution vulnerability according to this tool.

According to CalEnviroScreen 3.0 and as shown Figure 2.19, census tracts comprising the City of Los Banos score between 61% and 100% in terms of cumulative pollution vulnerability. Census tracts with higher cumulative vulnerability (in red) generally appear to encompass large swaths of unincorporated Merced County in addition to areas within Los Banos City Limits. These tracts are associated with a higher pollution burden than tracts encompassing mostly urbanized Los Banos, because unlike the City, much

of unincorporated Merced County is devoted to large-scale commercial agriculture. Large-scale agricultural activities tend to be geographically associated with higher rates of soil and groundwater contamination from pesticides and herbicides, and higher populations of low-income residents work on commercial farms. High levels of pollution and high concentrations of residents with low incomes are both factors contributing to higher rates of overall pollution vulnerability according to CalEnviroScreen.

Figure 2.19 CalEnviroScreen 3.0 Scores (2018) in Los Banos



Planning and Regulatory Framework

The City of Los Banos and regional agencies have developed many documents and studies to guide planning and decision-making for the physical environment in Los Banos. Together they provide a framework for the development of the Pioneer Road Complete Streets Plan. This section summarizes key local and regional plans, studies and projects.

Los Banos General Plan 2030 (2009)

Adopted in 2009, the City of Los Banos 2030 General Plan presents goals, policies, and actions to guide planning and development to the year 2030 and beyond. It includes several key themes and initiatives, including limiting growth to the urban growth boundary and preserving surrounding farmland, encouraging economic development and job growth, creating a walkable network between neighborhoods, enhancing community character and aesthetics, enhancing the network of parks and open space, providing a range of commercial and retail opportunities, and identifying adequate flexible school sites.

The Pioneer Road Plan Area is addressed in several elements of the Los Banos General Plan. The western spur of the Plan Area is roughly congruent with what the Los Banos General Plan designates in the Land Use Element as the Business Opportunity Area, which is designated for "a mix of industrial, office, and commercial parks." The General Plan notes that development in this area would be strictly contained within the bounds of the City's Westside planning subarea, a to protect surrounding agriculture and open space.

The Circulation Element of the General Plan classifies Pioneer Road as an arterial roadway. A list of planned improvements (Table 4.5 in the General Plan) includes a four-lane arterial roadway along Pioneer Road from the Business Opportunity Area on the west end of the City to Ortigalita Road.

Implementing Strategy 15 in the Land Use element establishes "a design standard for the planned improvement to Pioneer Road from the Business Opportunity Area to Ortigalita Road."

Other planned circulation improvements in the Study Area include widening several roads that intersect with Pioneer, as shown in Figure 2.4-2 of the Los Banos 2030 General Plan. These are: Ortigalita Road, Badger Flat Road, and Mercey Springs Road.

In addition to the Westside subarea, the Pioneer Study Area includes the following subareas from the 2030 Los Banos General Plan: the Stone Creek subarea, most of the South Central subarea, and a small portion of the Pacheco Boulevard subarea at the east end (along Ward Road until the intersection with Pacheco Boulevard).

Los Banos Bicycle-Pedestrian Plan (2018)

The Los Banos Bicycle-Pedestrian Plan, published in 2018, "is a comprehensive document outlining the future of walking and bicycling in Los Banos. It includes a vision for walking and bicycling in the city, policies to achieve this vision, planned bicycle and pedestrian networks, a prioritized list of projects to develop these networks, and guidelines for such elements as wayfinding signs and bicycle parking." The goal of the plan is to "help increase the number of people in Los Banos that travel in the city by walking or bicycling, and to improve the City's access to funding for bike and pedestrian projects from the State's Active Transportation Program and from the Regional Measure V Program."

The 2018 Plan includes a map of existing bikeways in Los Banos, an analysis and accompanying map of bicycle and pedestrian collisions, a map of the existing pedestrian network in Los Banos, and a detailed table (and accompanying map) of proposed future bike improvements in Los Banos, with identified funding sources and ranked by priority. It also describes the City's existing policies for bike support facilities like parking and showers, with an accompanying map of existing and proposed bike support facilities. Finally, the report includes a set of recommendations for wayfinding and signage policies, as well as other policies governing the future of bike infrastructure development in Los Banos.

The detailed table and accompanying map describing proposed bicycle projects in Los Banos include the following along Pioneer Road and in the Plan Area:

- A proposed Class I bike path along the entire length of the Plan Area, from Merced College south to Pioneer Road, along the length of Pioneer Road, and then north along Ward Road until the intersection with Pacheco Boulevard
- Several proposed Class I and Class II bikeways connecting Pioneer Road with residential neighborhoods and commercial areas to the north
- A proposed Class III bike path along Mercey Springs Road between the intersection with Pioneer Road up to Henry Miller Avenue north of the City.

Community Design Standards (2008)

The key objective for the Los Banos Community Design Standards, published in 2008, is to provide a set of design guidelines for new development that would maintain the City's small-town atmosphere. The document defines the City's vision for "small-town atmosphere" with a pedestrian scale and accessibility by walking (especially to schools), neighborhoods that are clearly identified and distinguished from one another, and a community-centered downtown that intermingles commercial and civic uses.

The Community Design Standards document does not have specific policies referring to Pioneer Road or the Plan Area, but it does reference Los Banos General Plan Land Use Implementing Measure 15 to "Establish a design standard for the planned improvement to Pioneer Road from the Business Opportunity Area to Ortigalita Road with resident input."

Los Banos Transportation Master Plan (2010)

A Transportation Master Plan (TMP) for the City was developed in 2010. A citywide traffic model was created to assess the City's transportation network to plan for future growth. In addition, a license plate survey was conducted to calibrate the model and review the amount of regional pass-by traffic through the City on Pacheco Boulevard. The TMP assumed the construction of a bypass as an expressway within northern limits of the City. While the study validated that a SR-152 bypass would alleviate traffic congestion, it identified several deficiencies and needed improvements in the roadway system.

Merced County General Plan (Circulation Element)

The most recent update to the Merced County General Plan was approved in 2013. The Plan describes goals, policies, and actions to guide planning and development in Merced County to the year 2030. Specifically, the Circulation Element of the Plan contains policies pertaining to roadways within Merced County, which includes Pioneer Road. Pioneer Road is identified as a "Minor Arterial" which is defined as a roadway that connects with and augments the urban principal arterial system and provides service to trips of moderate length and somewhat lower level of travel mobility than principal arterials (such as Pacheco Boulevard to the north). Table CIR-1 in the Plan classifies Urban Minor Arterials as having between 60 and 100 feet in right-of-way width, between 2 to 4 lanes, and a required Level of Service (LOS) Analysis threshold D. Minor Arterials generally feature intersections at quarter-mile intervals, medium traffic speeds, and limited access to private property (meaning encroachment permits are rarely granted to private property owners along these routes).

Merced County Regional Transportation Plan (RTP), 2018

The State of California requires that all Metropolitan Planning Organizations (MPOs) adopt a Regional Transportation Plan (RTP) that includes transportation goals for the region, as well as an associated list of priority transportation projects with identified funding sources, timelines, and implementation measures. Additionally, California Senate Bill 375 (2008) requires that RTPs include a Sustainable Communities Strategy (SCS) with land use goals and implementation measures that ensure development patterns – and the transportation systems serving them – are planned with the goal of reducing greenhouse gas emissions associated with sprawl.

The most recent RTP for Merced County, published in 2018, is intended to "ensure that the Merced County transportation system will continue to operate efficiently over the next 25 years with sufficient capacity to meet demand and that mobility options are available for all of Merced County's residents."

The Plan also includes a list (and associated map) of planned transportation projects within the City of Los Banos. These include the following within the Pioneer Plan Area:

- Figure 1.7 f on page 19 depicts the length of Pioneer Road between the western Plan Area boundary and Ward Road as a future bicycle/pedestrian project.
- Table 10.2 on page 89 lists widening Pioneer Road to four lanes between "SR-152/Merced College to Pioneer Road/Ward Road" as a Regional Transportation Plan/Sustainable Community Strategy Tier 1 Project. This project, which includes the western Plan Area spur as well as the length of Pioneer Road (including the unimproved ROW east of Mercey Springs Blvd.), lists 2025 as the expected date, and an estimated cost of $4,500,000 to be funded by Measure V dollars (see below for a description of Measure V).

Merced County Regional Bicycle Transportation Plan (2008)

In 2008, the Merced County Association of Governments (MCAG) published the Merced County Regional Bicycle Transportation Plan. The Plan provides a "comprehensive long-range view for the development of an extensive regional bikeway network that connects cities and unincorporated areas countywide." It documents conditions of existing bikeways within Merced County (as of 2008) and outlines a plan for future improvements. The 2008 Plan updated the previous 2003 Merced County Regional Commuter Bicycle Plan and meets the requirements of the California Bicycle Transportation Act in the California Streets and Highways Code. Adopting a bicycle transportation plan that meets these requirements enables the County and its local jurisdictions to apply for bicycle project funding through the State Bicycle Transportation Account.

The County Plan also summarizes the City's overall vision for developing an integrated bicycle network that maximizes bicycling benefits to the area's cycling and non-cycling public.

The Plan describes the funding sources for two key bike projects in Los Banos—the Rail Trail and the Central California Irrigation District (CCID) Class I Canal pathway. In the Pioneer Road Plan Area, a completed section of the Rail Trail meets Ward Road approximately 1,400 feet south of Pacheco Boulevard, extending northwest to Place Road. The CCID pathway crosses the Plan Area at Pioneer Road between South 11th Street and South Holland Avenue.

Merced County Short Range Transit Plan (2017)

The Merced Short Range Transit Plan (SRTP), published in 2017, is a document developed for MCAG and the Merced County regional transit system, ***The Bus***. It describes detailed business plans to guide the transit organization over a five-year period (from 2017 to 2022). The first part of the report evaluates the effectiveness and efficiency of existing transit services using ridership counts, rider demographics, rider surveys, onboard observations, and site evaluations. It concludes with detailed operational, capital, institutional, and marketing plans for The Bus, including implementation measures.

The report describes service conditions on existing routes through Los Banos. The report includes descriptions of rider experience, on/offs counts by stop, and a detailed physical description of bus stops, as well as a summary also summarizes route segments with low ridership. The only major bus stop in the Plan Area is Merced College. See the Transit section of this report for a more detailed discussion of transit services in the Plan Area.

Regional Transportation Improvement Plan (2020)

The Merced County Association of Governments (MCAG) adopted the Reginal Transportation Improvement Plan in 2019. This plan is updated biennially and must be consistent with the 2018 Reginal Transportation Plan. The plan is designed to set long-term improvement plans for highway, local road, transit, and active transportations projects through state and regional funds. This iteration of the RTIP does not intend to implement any projects in Los Banos but does list the Pioneer Road Widening Project as the next most important improvement project to be included in the 2022 cycle.

Regional Measure V Sales Tax

Merced County voters adopted the Regional Measure V half-cent sales tax in November 2016. The tax is estimated to generate $450 million for transportation projects in Merced County, and has an implementation period of 30 years. See Chapter 5 for further discussion about Measure V funding.

Caltrans Plans, Directives and Guides

Context-Sensitive Solutions (CSS)

Defined by the Federal Highway Administration (FHWA), the CSS process is a collaborative, interdisciplinary, and holistic approach to the development of transportation projects. Guided by four core principles, the process includes a shared stakeholder vision, a comprehensive understanding of a project's context, flexibility and creativity to produce solutions that link a project to its surrounding environment, and communication and collaboration throughout the project process to enable consensus. Caltrans' policy on CSS is provided through Deputy Directive 22 (DP-22), signed in 2001. As mentioned in the directive, Caltrans uses CSS as an approach to plan, design, construct, maintain, and operate its transportation system. The implementation of DP-22 has influenced multiple policy decisions from Caltrans, including the Deputy Directive Accommodating Non-Motorized Travel (DD-64) in 2001 and its subsequent enhancements (DD-64-R1 in 2008, DD-64-R2 in 2014) to further integrate complete streets into the planning of transportation projects. Another notable application of CSS principles is the development of the "Main Streets California Guide", which provides a range of design solutions that balance community values with efficient operations of all modes. It was first adopted in 2005 with the latest edition updated in 2013.

Caltrans Deputy Directive Accommodating Non-Motorized Travel (DD-64, DD-64-R1, DD-64-R2)

Originally signed in March 2001, DD-64 gave direction accommodating non-motorized travel, providing expectations to programs related to the need of all non-motorized travelers, including bicyclists, pedestrians, and persons with disabilities. Coinciding with the California Complete Street Act (AB 1358) in 2008, Caltrans updated and strengthened their policy on non-motorized travel with DD-64-R1. This revision enhanced DD-64 from accommodation to integration of the transportation system, providing "for needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system." Caltrans revised the directive (DD-64-R2) in 2014 to reflect changes of Caltrans division names and management within the organization, as well as reaffirming its commitment to complete streets and its emphasis on multi-modal mobility.

Caltrans Complete Streets Implementation Action Plan 2.0 (CSIAP 2.0)

Released in 2014, this Plan updates the first Complete Streets Implementation Action Plan from 2010. The intent of the Plan is to describe the current Caltrans complete streets policy framework and overview of complete streets efforts statewide. This update also lays out the structure for monitoring, reporting, and overcoming barriers to complete streets. Over 100 additional action items were introduced in this Plan update, further integrating complete streets into all Caltrans functions and processes. Action items include conducting complete streets training courses to Caltrans staff, the development of a statewide Bicycle and Pedestrian Plan and supporting complete street plans for all twelve Caltrans districts. The Plan also includes policies on collecting complete streets data, the creation of performance measures evaluating the effectiveness of bicycle and pedestrian infrastructure, and the revision of Caltrans manuals to be consistent with and supportive of complete streets.

Main Streets California Guide

This informational guide was created to serve as a reference on current traffic engineering practices, policies, and standards for Caltrans staff, local partners, and stakeholders to develop a shared vision on projects. In addition, the guide also provides guidance on design practices that aim to improve livability, sustainability, aesthetics, public space, and landscaping. Compatible with current guidance in the Caltrans Highway Design Manual (HDM), Manual of Uniform Traffic Devices (MUTCD), and Project Development Procedures Manual (PDPM), it offers flexibility of design standards for roadways that serve both as a State highway and a community street with traffic speeds typically less than 40 mph. The most recent edition of the manual, published in November 2013, includes greater emphasis of complete street investments consistent with recent Caltrans Non-Motorized Travel Deputy Directives, including support of infrastructure improvements that enhance travel conditions for all modes, with design solutions that focus on creating livable and sustainable communities.

Infrastructure Analysis

The infrastructure analysis described below considers the existing physical roadway conditions, pedestrian and cyclist facilities, right-of-way configurations, and utility infrastructure along Pioneer Road and Ward Road within the City of Los Banos. The analysis also identifies potential safety and traffic flow issues based on the current roadway configuration along the corridor.

Corridor Descriptions

Pioneer Road is a two-lane roadway classified as a minor arterial that provides east-west circulation in the City of Los Banos. The roadway forms portions of the southern boundary of Los Banos, providing access to newer residential developments. Driveway access to private properties exist along the length of the corridor. Most of the road consists of a two-lane undivided road with one lane in each direction with a broken yellow line in the center, which separates the eastbound and westbound lanes and allows vehicles to pass when safe. Along most of the roadway segment the shoulders are not paved and no curb gutters have been constructed. Portions of Pioneer Road east of Diana Road include left turn lanes and painted medians to channelize traffic. While Pioneer Road is currently not developed between Mercey Springs Road and Ward Road, this future roadway segment is included within the Complete Streets Plan project boundary.

Existing Pioneer Road roadway and adjacent right-of-way (looking west near Center Ave)

Near Cresthills Park looking west, a wide sidewalk (part of the potential future shared pedestrian/bicycle path) has been constructed as part of recent residential development.

Pioneer Road has a posted 45 miles per hour (mph) speed limit within the City of Los Banos. There is no posted speed limit along segments outside of City limits; however, the maximum speed limit is 55 miles per hour (mph) along two-lane undivided highways with no speed limit posted per the California vehicle code. No sidewalks or bikeways exist along majority of the roadway except a segment at the south edge of the Cresthills residential development between Black Hills Avenue and 11th Street, which has a sidewalk along the westbound lane. Along the same residential development site, west of Black Hills Avenue, there is a shared-use path—this path is a concept for a potential shared use path along Pioneer Road. Two bridges exist along Pioneer Road on either side of the Specific Plan project area. One bridge intersects at the Los Banos Creek and the other at Main Canal.

Ward Road is a two- to four-lane roadway classified as a minor arterial providing north-south travel in eastern Los Banos. The roadway is two lanes in the Plan Area between Pioneer Road and Pacheco Boulevard. There are no sidewalks except for a short segment on the developed east side near Pacheco Boulevard. Along most of this roadway segment the shoulders are not paved, and no curb gutters have been constructed. A segment of the Rail Trail meets Ward Road approximately 1,400 feet south of Pacheco Boulevard, extending northwest to Place Road.

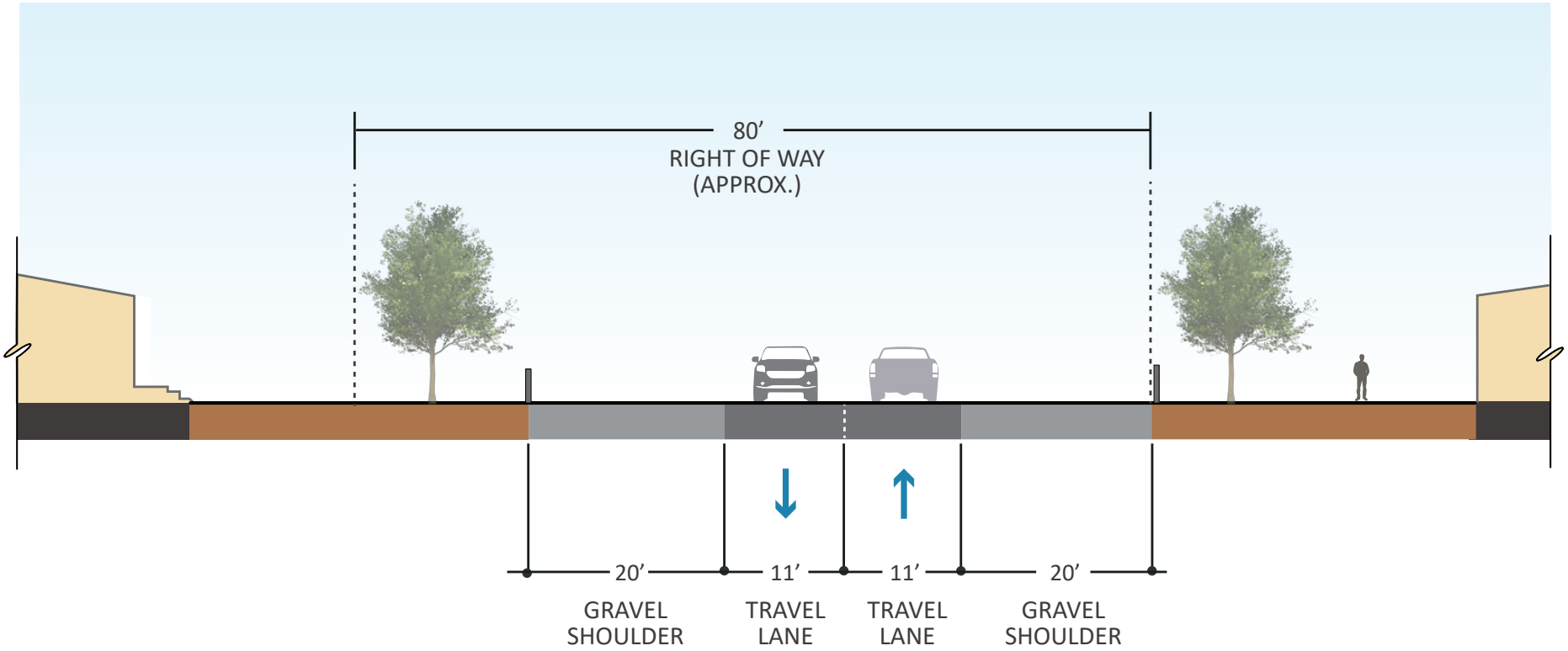
North of Pacheco Boulevard (outside the Plan Area), the roadway converts to four lanes with sidewalks on both sides of the street. Bike lanes exist along the roadway north of Canal Farm Lane. The City's Bicycle and Pedestrian Plan proposes a Class I multi-use path south of Pacheco Boulevard connecting to a multi-use path along Pioneer Road (see further discussion below).

The section diagrams shown below and on the following pages depict existing conditions at three locations in the Plan Area.

Roadways in the Plan Area

Los Banos' local roadways serve neighborhoods, schools, stores, and other services. Most local roads are oriented on an orthogonal north-south east-west grid, with the exception of streets in and around downtown, which are askew at a 45-degree angle.

Figure 2.20 Existing Conditions – West End of Pioneer Road Near Los Banos Creek (Looking East)

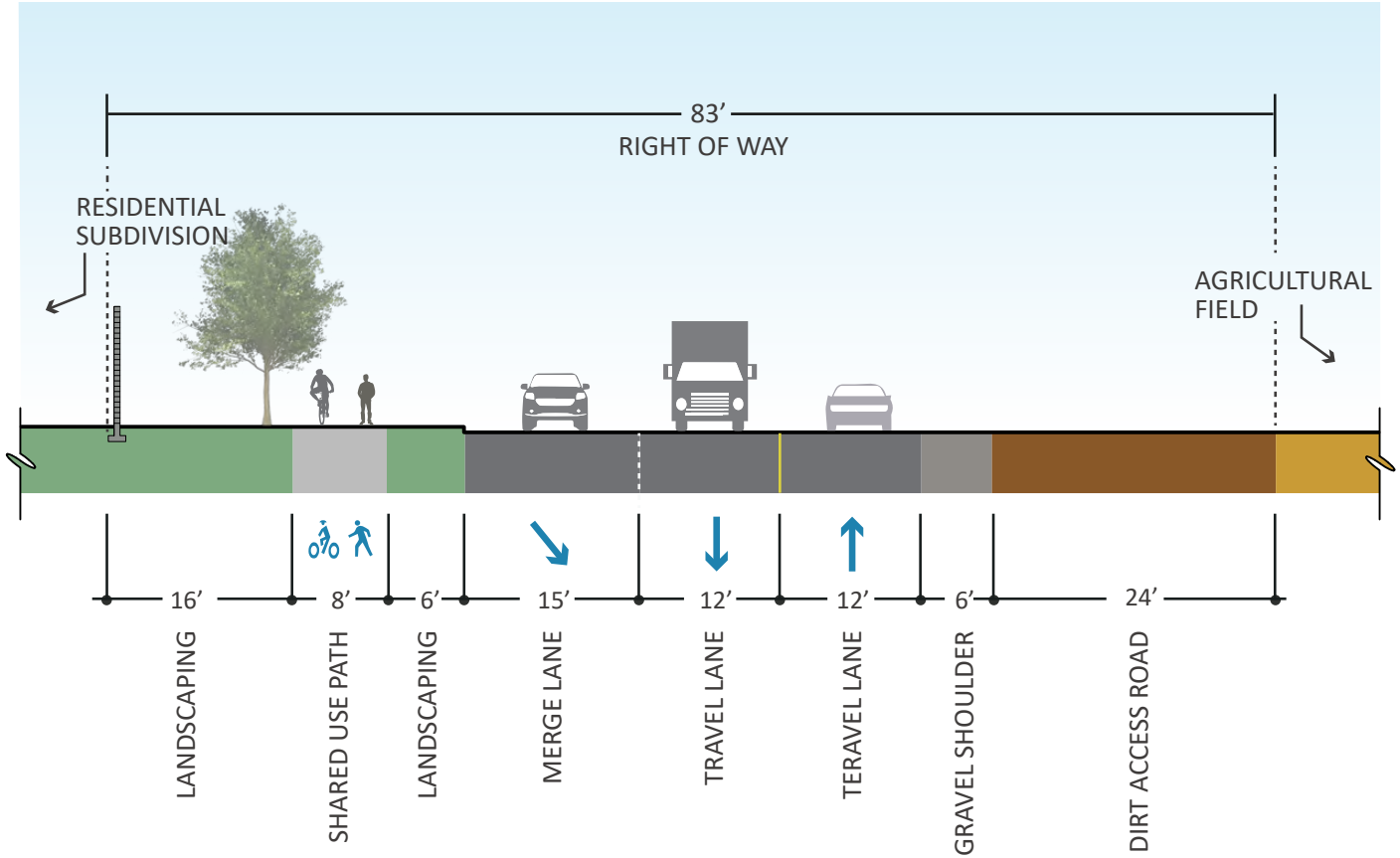


Location of Section Diagram

View Location

This is the most-typical existing configuration of Pioneer Road, with two travel lanes, wide gravel shoulders, and an approximately 80’ right-of-way extending beyond the roadway.

Figure 2.21 Existing Conditions – Pioneer Road between Diana Road and Black Hills Avenue (Looking East)

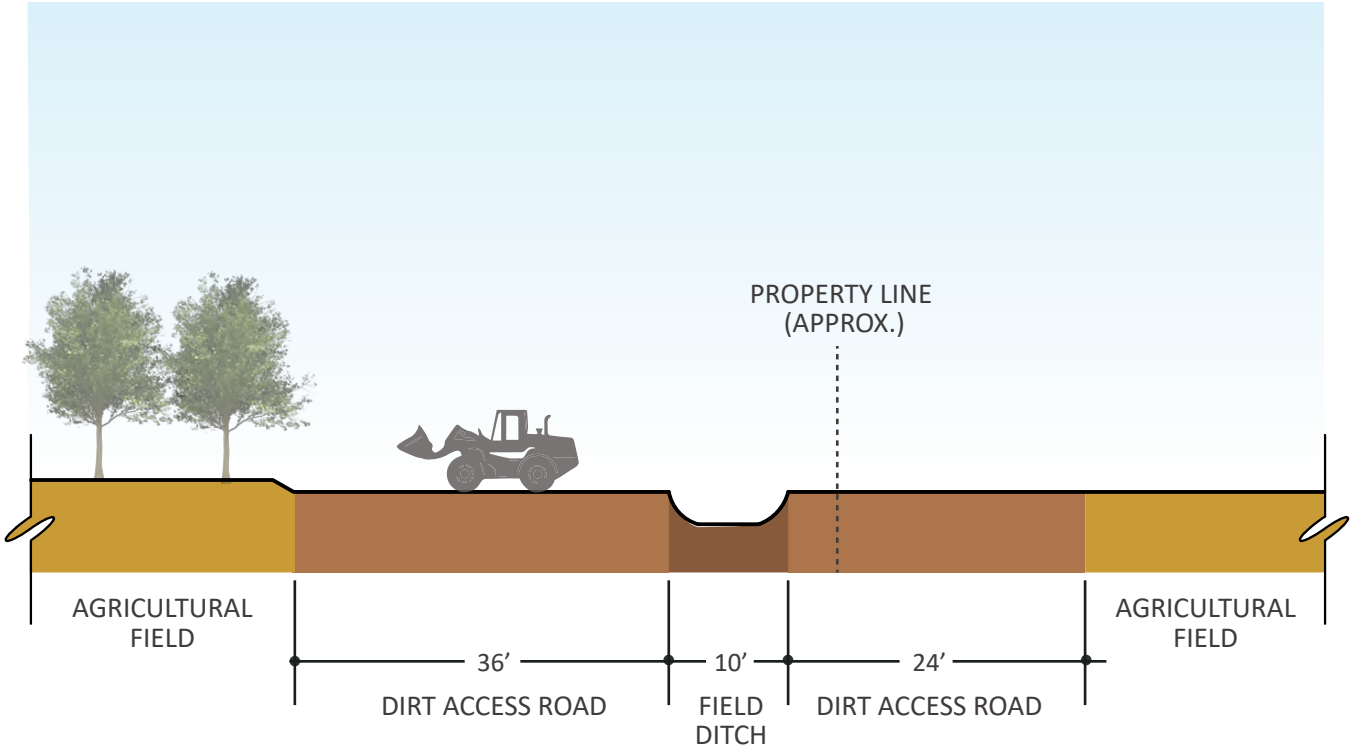


This is a recently widened portion of Pioneer Road constructed as part of the newly built subdivision west of the Cresthills neighborhood. This short roadway segment has a widened sidewalk on the north side that can be part of a potential pedestrian/bike path on the north side.

Location of Section Diagram

View Location

Figure 2.22 Existing Conditions – Potential Pioneer Road Right-of-Way, East of Place Road (Looking East)



This section is located just east of Place Road and indicates a potential right-of-way for the extension of Pioneer Road from Mercey Springs Road to Ward Road.

Location of Section Diagram

Existing conditions at view location.

Ward Road (looking south)

The City's roadway system is classified into a hierarchy of street types, as defined in the current Circulation Element of the General Plan:

- **Major Arterials –** Major arterials are access-controlled roadways designed to accommodate large traffic volumes emphasizing mobility between major portions of the city and to regional highways. The right-of-way of major arterials spans from 80 to 122 feet. On-street parking should typically not be provided on major arterials.
- **Minor Arterials** – Minor arterials are roadways that provide mobility through the city and access to major residential, employment, and activity centers. The right-of-way along minor arterials ranges from 62 to 100 feet. On-street parking may be provided on minor arterials. Bicycle lanes, landscaped parkway strips, sidewalks, and transit facilities may also be accommodated within the right-of way of minor arterials.
- **Collectors –** Minor and major collectors are roadways that collect traffic from local streets within residential areas and provide access to arterials. The width of the right-of-way for collectors spans from 34 to 80 feet, with allowances for parking. Bicycle facilities and on-street parking should generally be provided for collector streets.
- **Neighborhood/Local Streets –** Local streets are roadways whose primary function is to provide direct access to neighborhoods. Neighborhood/Local Streets are found throughout Los Banos in residential areas, and they have a right-of-way width from 32 to 60 feet, with allowances for parking. The City Improvement Standards and Specifications identifies these as "Private Residential" and "Local Residential streets"

Table 2.3 presents the City's design volumes for the various street classifications, right-of-way curb widths, configuration, design speed, and traffic volumes.

The following section provides descriptions of key roadways that intersect Pioneer Road within the Plan Area and provides infrastructure analysis. The roadways are listed from east to west. Table 2.4 provides a summary of the roadways.

- **State Route 165** is a regional State Highway and is designated as a truck route. Known as Mercey Springs Road within City Limits, the roadway provides north-south travel through Los Banos. Mercey Springs Road is mostly a two-lane roadway through the City, including where it intersects Pioneer Road. It becomes a four-lane road within and immediately adjacent to the intersection of Pacheco Boulevard. There are missing sidewalk segments throughout the length of the corridor in Los Banos. No bikeways currently exist, but the City's Bicycle and Pedestrian Plan proposes a bikeway along this corridor.
- **Center Avenue** is a two-lane roadway classified as a minor arterial that provides north-south travel in Los Banos and access to neighborhood streets. High-visibility crosswalks exist where the roadway intersects Canal Trail Park. Similarly, as the roadway provides access to Our Lady of Fatima School, yellow striping marks conventional crosswalks for school crossings. Sidewalks exist between Cardoza Road and Pacheco Boulevard. No bikeways currently exist, but the Bicycle-Pedestrian Plan depicts a proposed bikeway along this street.

Table 2.3 Design Standards and Volumes by Street Classification						
Street Classification	R/W, Curb-Curb Width (Feet)		Standard Configuration	Design Speed (mph)	Daily Traffic Volume Range	
	Low	High			Low	High
Private Residential			2 lanes	25	0	500
Local Residential	52	32	2 lanes with parking	30	0	4,000
Minor Collector	60	40	2 lanes with parking	35	500	4,000
Minor Collector	60	34	2 lanes with no parking	35	500	4,000
Major Collector	72	56	2 lanes with parking and left turn lane median	40	4,000	7,500
Major Collector	80	50	2 lanes with no parking and with walls at the property line	40	4,000	7,500
Industrial	66	48	2 lanes	40	0	14,000
Minor Arterial	84	62	4 lanes with no parking	50	7,500	–
Minor Arterial	100	62	With wall at property line and no parking	50	7,500	–
Major Arterial	106	80	4 lanes w/ left turn lane/median and no parking	55	–	25,000
Major Arterial	122	80	4 lanes with no parking and with walls at property line	55	–	25,000

Source: City of Los Banos Improvement Standards and Specifications.

Table 2.4 Roadway Classifications and Configurations for Roadways within the Study Area

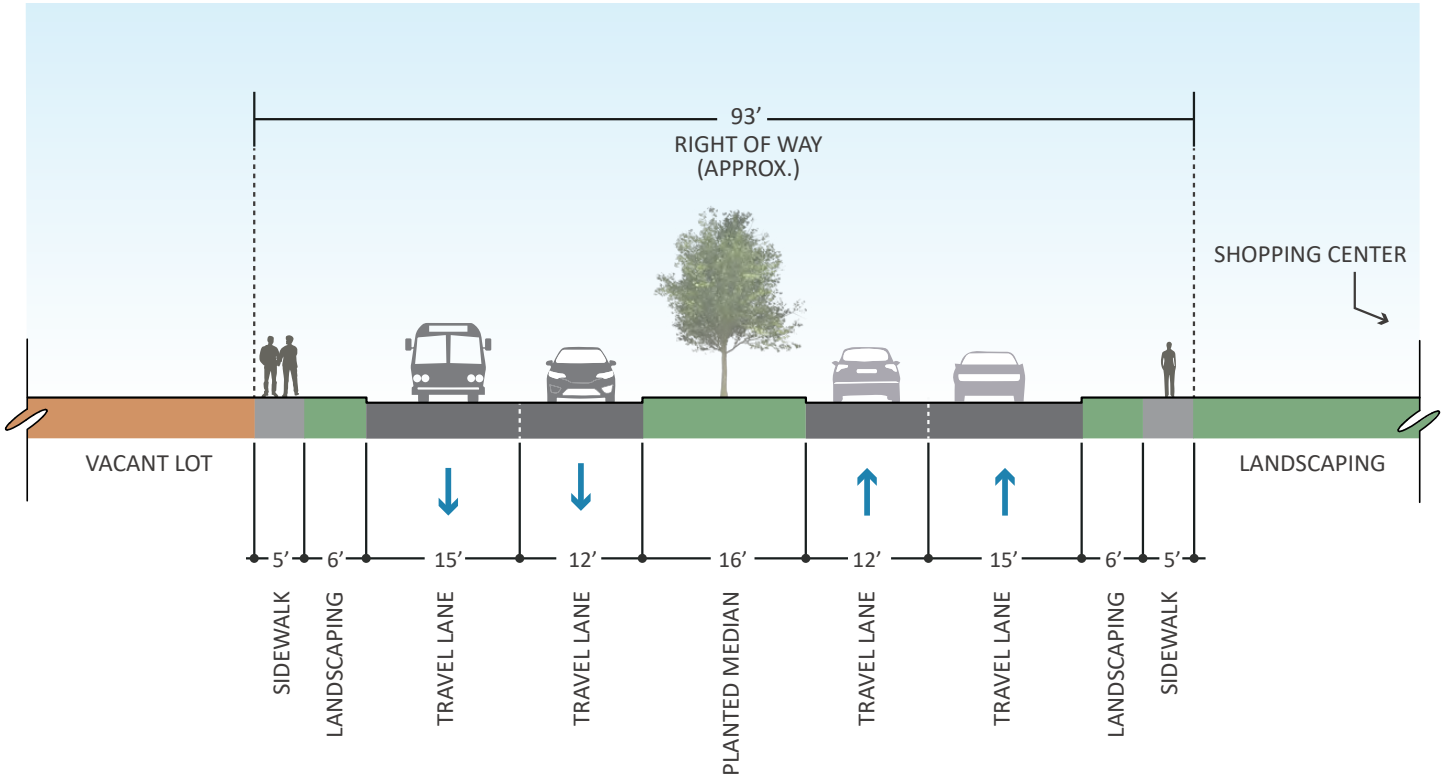
Roadway	Classification	Direction	# of Lanes	Median	Divided/ Undivided	Speed Limit	Sidewalks	Bike-ways	Street Parking
Pioneer Road	Major Arterial	E/W	2	No*	Undivided	Not Posted	Yes – missing segments	No**	No
Ortigallita Road	Minor Arterial	N/S	2-4	No	Divided	45 mph	Yes – missing segments	Yes	No
Center Avenue	Collector	N/S	2	No	Varied	25 mph	Yes – North of Cardoza Road	No	No
SR 165 (Mercey Springs Road)	Major Arterial	N/S	2-4	Varied – raised and striped	Varied	35 mph	Yes – missing segments	No	No
Ward Road	Major Arterial	N/S	2-4	Yes – Raised	Varied	Not Posted	Yes – north of Pacheco Blvd	No	No

* There are no medians (striped or raised) for the greater length of the corridor, however a stripped median exists between Bloack Hills Avenue and Mercey Springs Road.
** There is a multi-use path that serves as a concept for future bikeways along the roadway

- **Ortigalita Road** is a two- to four-lane roadway classified as a minor arterial that provides north-south circulation. It has two lanes at its intersection with Pioneer Road. Ortigalita Road provides access to residential streets and commercial properties. Class II bicycle lanes exist along the roadway between Pacheco Boulevard and Sandra Street.
- **Badger Flat Road** is a relatively recent arterial road that could potentially serve as a model for future Pioneer Road streetscape design. As shown in Figure 2.23, it consists of two lanes in either direction, a center landscaped median (with portions having a center left-turn lane with a narrow raised median), and sidewalks on both sides. There is also a landscaped roundabout located at a five-way intersection with Cardoza Road and Church Road.

Ward Road at SR-152/Pacheco Boulevard (Looking North)

Figure 2.23 Badger Flat Road Near Pacheco Boulevard (Looking South)



Attractive median on Badger Flat Road

Pioneer Road and segments of Mercey Springs Road and Ward Road south of Pacheco Boulevard are mostly free-flow without stops for through traffic. The only stops for through traffic on Pioneer Road within the City occur at Ortigalita Road (two-way stop), Center Avenue (four-way stop), and at its eastern terminus where the roadway intersects Mercey Springs Road at a Tintersection. The only interruptions to through traffic for Mercey Springs Road and Ward Road in the Plan Area occur at their intersections with Pacheco Boulevard where signalized intersections are located along both roadways.

Existing Pedestrian Infrastructure

Pedestrian activity and infrastructure vary depending on street type and context. Such is the case of Pioneer Road—due to the rural context and design of Pioneer Road, pedestrian facilities are limited. Sidewalk facilities only exist at the south edge of the Cresthills residential development west of Mercey Springs Road, on the north side of the road, for an approximate length of a half-mile (see image). There are no additional pedestrian features along Pioneer Road.

The only pedestrian facility on Ward Road is an approximately 300-foot-long sidewalk adjacent to newer construction between Technology Avenue and Pacheco Boulevard.

Existing and Proposed Bicycle Network and Facilities

The Los Banos Bicycle-Pedestrian Plan, adopted in 2018, presents a vision for increasing walking and bicycling in the City through the adoption of a comprehensive set of policies, programs, guidelines, and goals. The Plan presents a series of figures and tables that identify existing facilities and itemize proposed bikeway improvement throughout the City. Currently there is no bikeway along Pioneer Road, and the Canal Pathway is the only existing bikeway that intersects Pioneer Road.

The 2018 Plan proposes a Class I multi-use path along Pioneer Road for its entire length within the Plan Area (Figure 2.24). Proposed north-south bikeways provide further connectivity, including a proposed Class I multi-use path along Ward Road (Figure 2.24). The proposed Pioneer Road and Ward Road bikeways are envisioned as part of a continuous Class I multi-use path connecting Pacheco Boulevard, Pioneer Road, and Ward Road, and a potential future trail between Merced College and Pioneer Road.. .

HG Fawcett pedestrian/bicycle path just north of Pioneer Road along the Main Canal.

The following is a list of roadways and alignments with existing or proposed bikeways intersecting Pioneer Road or Ward Road:

- Los Banos Creek (Proposed Class I – multi-use path)
- Badger Flat Road (Proposed Class I – multi-use path)
- Ortigalita Road (Proposed Class II – bike lanes)
- West I Street (Proposed Class II – bike lanes)
- Mulberry Street (Proposed Class I – multi-use path)
- Center Avenue (Proposed Class II – bike lanes)
- 11th Street (Proposed Class II – bike lanes)
- Mercey Springs Road (Proposed Class III – shared bike/vehicle lane)
- Place Road (Proposed Class II – bike lanes)
- Canal Trail (Existing Class I – multi-use path)
- Rail Trail (at Ward Rd) (Existing Class I multi-use path to the northwest and Proposed Class I extension to the southeast)

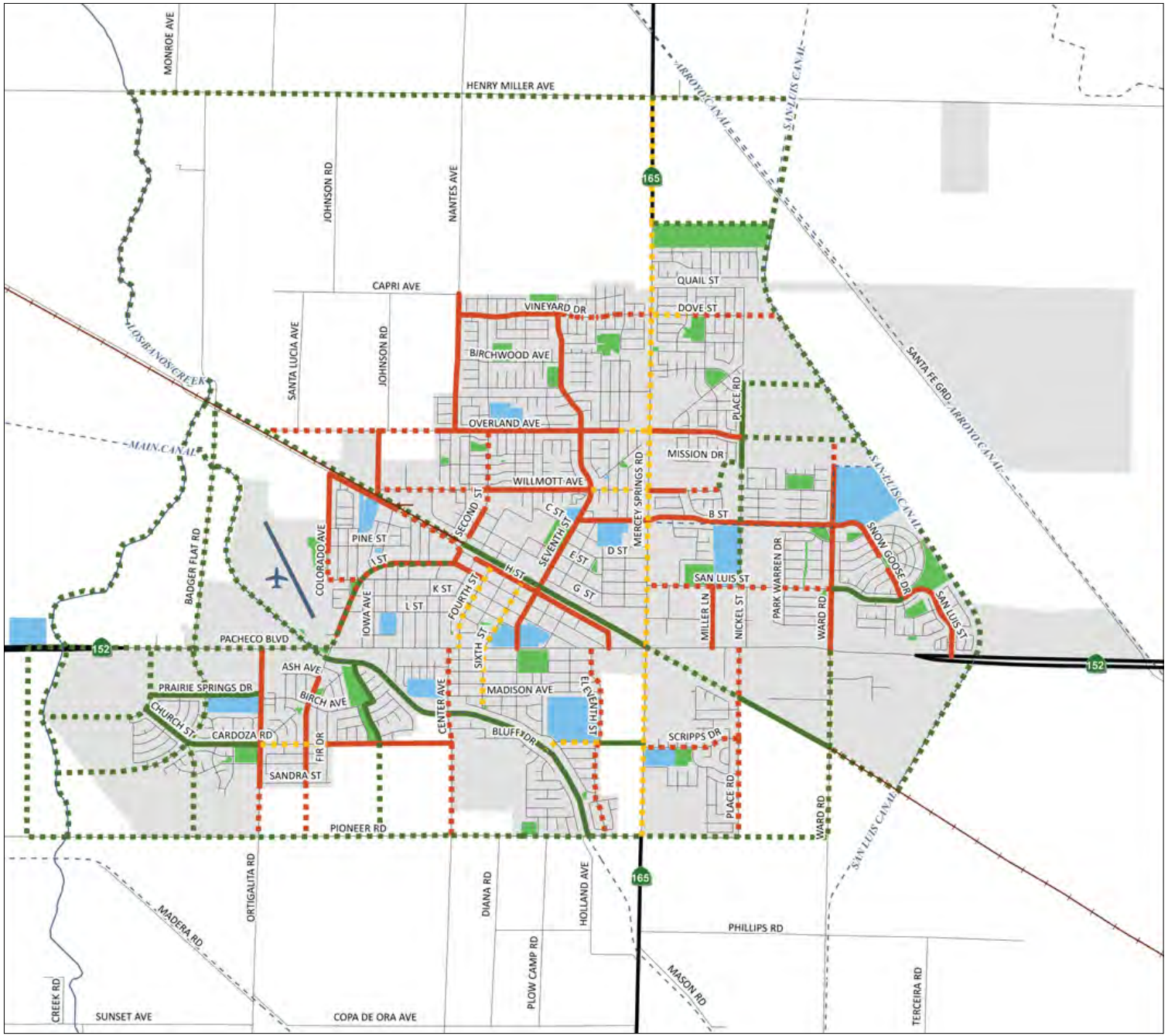


Figure 2.24 Existing and Proposed Bikeways in Los Banos

Image source: Los Banos Pedestrian-Bicycle Plan, MCAG (2018).

Existing Traffic Volumes and Level of Service

The section presents published traffic volumes on roadways and intersections in the Plan Area. Roadway capacity is generally limited by the ability to move vehicles through intersections. Level of service (LOS) is a standard performance measurement to describe the operating characteristics of a street system in terms of the level of congestion or delay experienced by motorists. Service levels range from A through F, which relate to traffic conditions from uncongested, free-flowing conditions (LOS A) to total congestion with stop-and-go operation (LOS F).

Roadway Segments

Roadway segment values were collected during a 24-hour period for Pioneer Road on Tuesday, April 21, 2015 for the Traffic Impact Analysis for Presidential Estates East Area Plan. Though the data was referenced from a published study, the Average Daily Traffic (ADT) volumes present an idea of existing conditions along Pioneer Road within the Plan Area (Table 2.5). Traffic Volumes were collected at a single location along Pioneer Road, between 11th Street and Mercey Springs Road. Pioneer Road west of Mercey Springs Road in 2015 had an ADT volume of 5,700.

The traffic volumes on Mercey Springs Road range from an ADT volume of 12,000 at the intersection of Pacheco Boulevard to an ADT volume of 6,700 at the intersection of Pioneer Road. Figure 2.25 presents ADT volumes and Intersection LOS analysis.

Table 2.5 Roadway Segments Average Daily Traffic

Roadway	Segment		Existing Conditions	
	From	To	Daily Traffic Volumes[a]	No. of Lanes
Pioneer Road	11th Street	Mercey Springs Road	5,700	2
Mercey Springs Road	Pacheco Boulevard	Sappos Drive	12,000	2
Mercey Springs Road	Sappos Drive	Pioneer Road	6,700	2

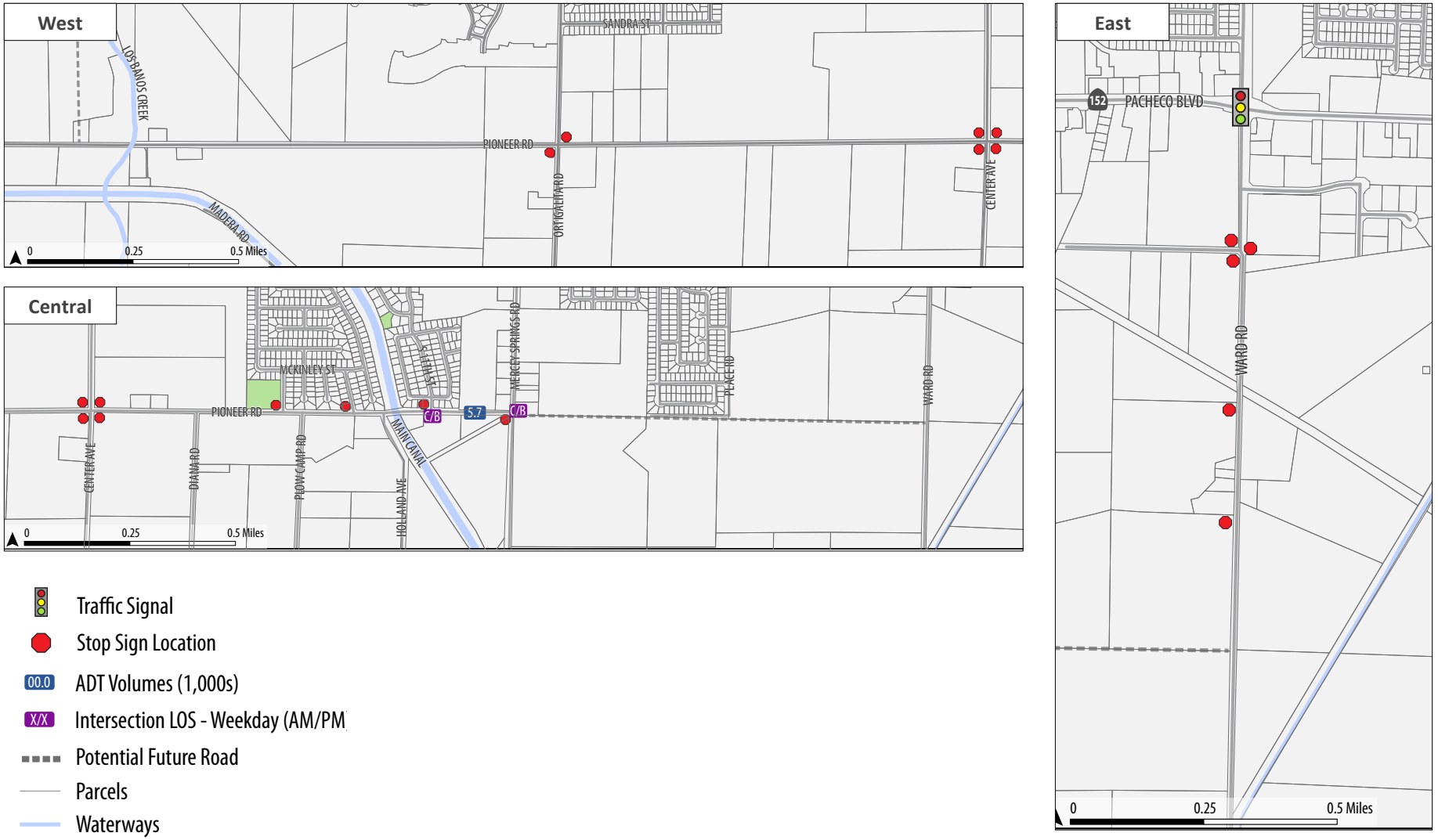
Source: Traffic Impact Analysis for Presidential Estates East Area Plan, prepared by KD Anderson & Associates Inc., 2016.

Table 2.6 Existing Peak Hour Intersection Levels of Service Along Pioneer Road

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Pioneer Road and 11th Street	SB Stop	18.7	C	10.8	B
Pioneer Road and Mercey Springs Road	EB Stop	17.3	C	11.2	B
Mercey Springs Road and Scripps Drive	WB Stop	15.4	C	18.8	C
Mercey Springs Road and Pacheco Boulevard	Signal	39.0	D	30.3	C

Source: Traffic Impact Analysis for Presidential Estates East Area Plan, prepared by KD Anderson & Associates Inc., 2016.

Figure 2.25 Controlled Intersections, Average Daily Traffic, and Level of Service



Intersection LOS Analysis

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions. The peak hours are the highest traffic volumes that occur in four consecutive 15-minute periods from 7 to 9 AM and from 4 to 6 PM on weekdays. To review traffic conditions in the area, intersection turn movement counts and intersection LOS calculations were obtained from a previously published traffic study. Weekday counts were observed on Wednesday, April 8, 2015 during 7:00–9:00 for the AM peak period and 4:00–6:00 for the PM peak period. Table 2.26 provides a list of the intersections evaluated along Pioneer Road and Mercey Springs Road. All plan area intersections currently operate at LOS B to D during the peak hours.

Corridor Access Driveways and Medians

Pioneer Road

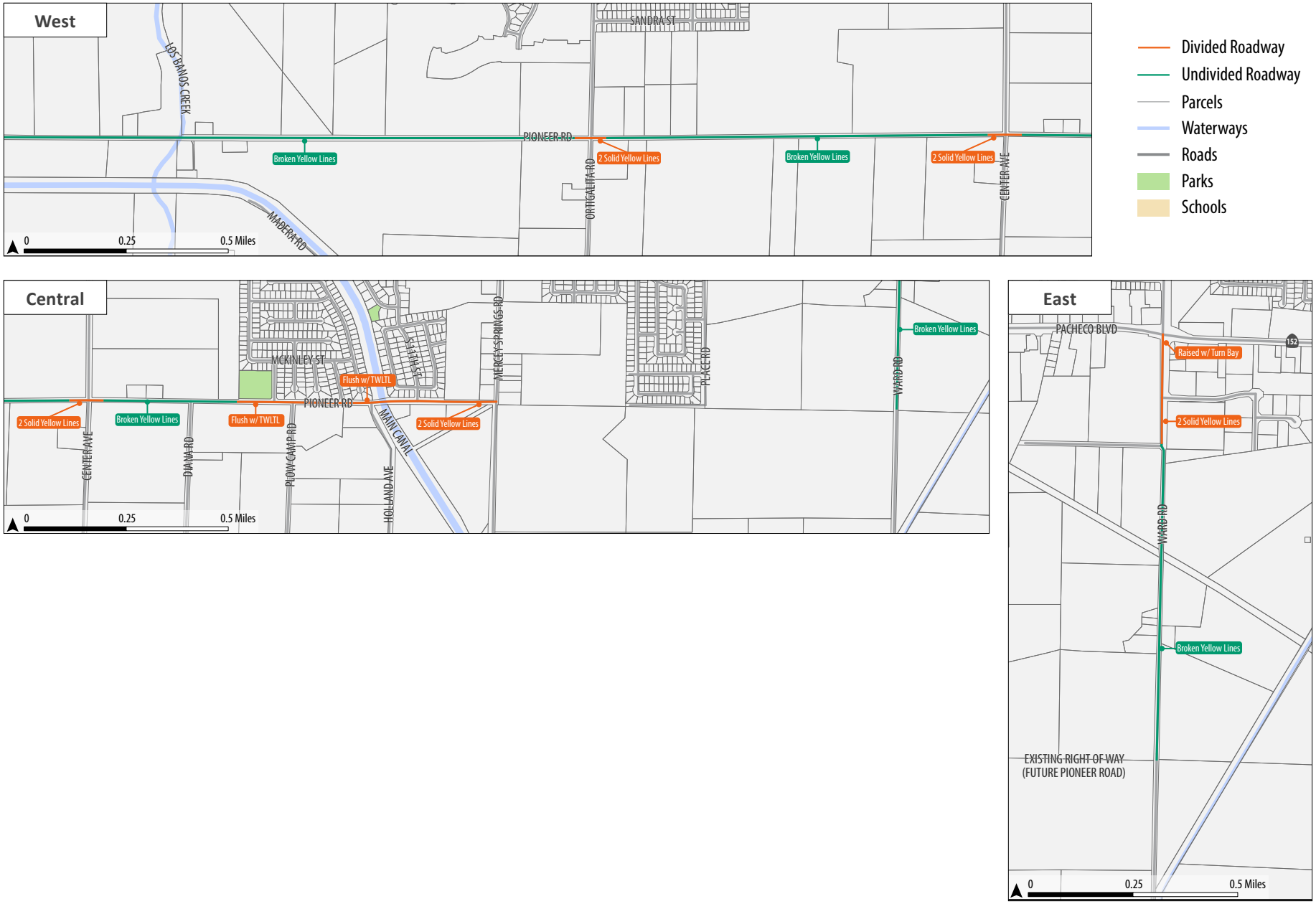
Future improvements along Pioneer Road would require an evaluation of spacing and location of driveways and medians to promote safety and minimize conflict points between vehicular traffic, pedestrians, and cyclists. Figure 2.26 depicts the current configuration of medians and undivided roadway along Pioneer Road and Ward Road. (The figure does not include the west Plan Area, which has no existing roadway).

As discussed above, Pioneer Road is mostly configured as a two-lane undivided roadway with just two stop signs interrupting through traffic in addition to a stop sign at its terminus at Mercey Springs Road. Cross-street traffic stops on Ortigalita Road, Center Avenue, Diana Road, Black Hills Avenue, Plow Camp Road, Blue Ridge Avenue, and 11th Street. Currently, the distances between driveways into properties vary between 50 feet to 2,000 feet, the longer distance being primarily where there is agricultural land. Due to the vast distances between parcels, there are currently limited access driveways (many of which are unpaved). The roadway segment that borders residential development west of Mercey Springs Road has a flush median with left-turn bays; this is the only divided segment along the roadway.

Ward Road

The segment of Ward Road between Pacheco Boulevard and Pioneer Road is mostly a two-lane undivided roadway with a broken yellow striped line in the center. There is a raised median with a left turn bay where Ward Road and Pacheco Boulevard intersect. There are no interruptions to traffic flow south of Pacheco Boulevard to the south end of the Plan Area.

Figure 2.26 Median Types Along Pioneer Road and Ward Road



Planned and Proposed Improvements

The City's General Plan 2030 designates the "Westside subarea" as a Business Opportunity Area; a transportation performance monitoring program will be developed for the southern part of the area, which is bounded by Pioneer Road to the south and Pacheco Boulevard to the north. The Business Opportunity Area will be developed into commercial, professional office, and employment park land uses. To accommodate future traffic, Pioneer Road would be developed as a four-lane arterial from the Business Opportunity Area to Ortigalita Road. The General Plan also proposes the widening of Ward Road to a four-lane road from Pacheco Boulevard to Pioneer Road.

Additionally, The MCAG 2018 RTP details improvements throughout Los Banos. Some improvements are within the City's jurisdiction, while others are in Caltrans' jurisdiction. Table 2.7 details projects of relevance in Los Banos by jurisdiction.

Safety Analysis

According to the Transportation Injury Mapping System (TIMS), 601 traffic collisions occurred in the City of Los Banos from January 1, 2014 and December 31, 2018. Of these 601 collisions, just eight occurred within the Pioneer Complete Streets Plan Area. All eight collisions in the Plan Area during this period involved motor vehicles only—none involved a bicycle or pedestrian, and none resulted in death or severe injury.

Pioneer Road (Looking West)

Ward Road (Looking South)

One of these eight collisions occurred on Pioneer Road, immediately west of the intersection with Black Hills Avenue, and two collisions during this period occurred at the intersection of Pioneer Road and Blue Ridge Avenue. Five of the eight collisions occurring in the Plan Area during this period were on Pacheco Boulevard at or near the intersection with Ward Road in the eastern spur of the Plan Area.

Table 2.7 MCAG 2018 RTP Roadway Capacity Increasing Improvements (City of Los Banos)						
Agency	**Title**	**Limits/Description**	**Type**	**Year**	**Cost ($1,000's)**	**Funding Source**
Los Banos	Pioneer Road Widening	SR/152/Merced College to Pioneer Road/Ward Road	Road Capacity	2025	$45,000	Measure V
Los Banos	H Street, Badger Flat Road, Overland Avenue Widening	Badger Flat – SR 152 to Ingomar Grade; H Street; Overland Avenue – Nantes Avenue to H Street	Road Capacity	2025	$25,000	Measure V
Los Banos	Mercey Springs Road (SR 165) Widening	Badger Flat Road/SR 152 to Merced College	Road Capacity	2025	$20,000	Measure V
Los Banos	Merced College Bike/Pedestrian Trail	–	Active (Bike/Ped)	2020	$1,200	Measure V
Los Banos	Sidewalk infill at various locations	Berkley Drive to St. Francis drive at various locations; Also, on SR 152 from 7th Street to H Street (PM 20.6/21.1) at various locations	Active (Bike/Ped)	2020	$319	ATP, CMAQ
Los Banos	Various locations	–	Active (Bike/Ped)	2020	$2,500	ATP, CMAQ
Los Banos	Class II Bike Paths; H Street – Badger Flat from Pacheco to H Street – Overland (Triangle)	–	Active (Bike/Ped)	2030	$4,500	ATP, CMAQ
Los Banos	Downtown Complete Streets – street and sidewalk rehab, new curbs and finished street surface with storm drains	–	Complete Streets	2024	$6,000	Measure V/SB-1/ STIP/Local
Los Banos	Multipurpose Bike/Pedestrian Path (810 ft) and ped/ bike bridge across creek	–	Active (Bike/Ped)	2022	$4,000	Measure V/SB-1/ STIP/Local
Los Banos	Local Projects: Cape Seal, ADA corner, downtown renovation – City to provide list	–	Road Mainte-nance	2030	$6,000	Measure V/SB-1/ STIP/Local

Source: Merced County Association of Governments (MCAG) 2018 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS).

Summary of Key Issues and Opportunities

Key Issues

- **Limited Space:** Pioneer Road has a right-of-way ranging from approximately 50 feet to 80 feet. The narrower segments will need to have increased right-of-ways to allow for sufficient space for vehicles (including turning movements), pedestrians, and bicyclists. In addition, the right-of-way is constrained at some locations by buildings and other development on private land close to the property line, especially on the north side.
- **Lack of Public Right-of-Ways:** There is currently no public right-of-way between Pioneer Road and Pacheco Boulevard at the west end of the Plan Area. There is also no public right-of-way east of Mercey Springs Road, where there is an east-west parcel boundary between two adjacent parcels.
- **Narrow Bridges:** Existing bridges at Los Banos Creek and the Main Canal are two lanes wide and may require widening.
- **Limited Pedestrian and Bicycling Infrastructure:** There are currently no bicycle facilities along Pioneer Road or Ward Road. Pedestrian facilities are limited to the Cresthills residential development west of Mercey Springs Road.
- **Coordination with City and County Jurisdictions:** Pioneer Road runs within the City and unincorporated areas, requiring coordination between the City of Los Banos and Merced County.
- **Potential Environmental Effects:** Additional traffic along Pioneer Road and Ward Road could affect environmental factors such as noise and air quality, which will need to be studied in future phases.
- **Site Access:** Adequate site access for property owners and future developments via access driveways and left-turn lanes will need to be provided for any new configurations of Pioneer Road.
- **Accommodating Trucks:** All improvements including intersection designs will need to be designed to accommodate heavy truck traffic.

Key Opportunities

- **Provide an Alternative Route to Pacheco Boulevard:** A future widening of Pioneer Road and Ward Road would provide an efficient route for people traveling east-west or west-east through the City. It would likely result in a significant reduction of traffic on Pacheco Boulevard, which is currently highly congested.
- **Recent Street Improvements are a Potential Model:** Recent street improvements in Los Banos and elsewhere can serve as a model for the design of Pioneer Road. For example, the streetscape and roadway design of Badger Flat Road includes attractive landscaping, bikeways, and a roundabout.
- **Aesthetic Improvements:** To achieve consistent character throughout the corridor, development standards for streetscape, landscape and lighting in front of new development should be considered.
- **High-Quality Bicycle and Pedestrian Facilities:** A future widening of Pioneer Road would allow for comfortable and safe facilities for people walking and bicycling, such as multi-use paths separated from the vehicle roadway.
- **Connect to Existing and Future Trails:** New Pioneer Road bicycle and pedestrian facilities can connect to future and existing amenities such as the Main Canal multi-use path, providing an enhanced local network for pedestrians and bicyclists.
- **Support Future Community Growth:** A future widening of the roadway would support the development of additional housing and other potential land uses.

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3 Community Engagement and Concept Development

Introduction

Overview

Throughout the project's duration, community members provided important ideas and feedback to guide concept development for the Pioneer Road Complete Streets Plan. The community engagement effort was conducted concurrently with engagement for the Pacheco Boulevard Complete Streets Plan – an associated plan providing recommendations and strategies for enhancing safety, traffic flow, aesthetics, bicycling and walking along SR-152/Pacheco Boulevard through the City of Los Banos. Through this coordinated community engagement effort, community members had a unique opportunity to provide feedback on two interrelated plans providing significant Citywide benefits to mobility.

The coordinated engagement effort used the project name "Pacheco Boulevard and Pioneer Road Complete Streets" to provide cohesive branding highlighting the plans' Complete Streets approaches. While engagement was conducted concurrently with the Pacheco Boulevard Complete Streets Plan, this chapter focuses on Pioneer Road components of the engagement process.

Community engagement took place in three phases – or "rounds" – corresponding to project milestones.

- **Engagement Round 1** raised project awareness and collected issues and priorities from the community that would shape the development of a variety of Concept Alternatives for providing an enhanced east-west route using Pioneer Road. This round included stakeholder meetings and a community workshop.
- **Engagement Round 2** provided opportunities for community members to provide feedback on the Concept Alternatives primarily through a community workshop and an online survey. The Alternatives were based on feedback heard in the first engagement phase. Following this round, the project team incorporated community priorities into development of the Preferred Alternative.
- **Engagement Round 3** provided opportunities for community members to provide feedback on the Preferred Alternative, primarily through a community open house and a virtual workshop. The third round of engagement collected a final round of feedback to further refine the Preferred Alternative into a Draft Plan presented to City Council and community members in November 2020.

In subsequent sections in this chapter, detailed summaries of the three rounds of community engagement describe the process, key feedback, and how major project milestones were shaped based on previous rounds of feedback.

Online Engagement and Printed Materials

Throughout the project duration, graphic-rich, bilingual print and digital media spread the word about the project and about upcoming community workshops and other events. Most of the project's marketing materials were initially developed during the first engagement phase and modified throughout the second and third engagement phases. These are described below.

Project Website

A bilingual (English and Spanish) webpage on the existing Los Banos General Plan 2040 website was a key community engagement tool throughout the duration of the project, serving as a central location for information regarding both the Pioneer Road Complete Streets Plan and the Pacheco Boulevard Complete Streets Plan. The webpage included a brief description of both plans, background information on the planning effort, goals and objectives of the plans, a graphic project timeline, and combined project FAQ that was updated throughout the project's duration. In addition, all infographics, project design concepts, technical/plan documents and any outreach or survey materials were hosted on the project webpage and available for download. The website also included a link to sign up for the project email list and submit comments or questions.

Project website

Social Media

A Facebook profile for both the Pioneer Road Complete Streets Plan and Pioneer Road Pacheco Boulevard spread awareness upcoming engagement opportunities and provided project updates. Facebook event pages advertised all community engagement events, posted on the project Facebook page as well as on the Los Banos Community Facebook page and the City of Los Banos Department of Community and Economic Development Facebook page.

Facebook post example

Mailings and Eblasts

At the outset of the project, project announcement notices were mailed to property owners along Pioneer Road and Ward Road. These notices provided key information about the project as well as upcoming opportunities for engagement, including targeted stakeholder meetings that took place in the first phase of community engagement (described in the next section).

A MailChimp database with contact information (primarily email addresses) included stakeholders and people who signed up at public events or through the project webpage. Email blasts sent at key points during the project provided contacts with important updates and notifications of upcoming engagement opportunities such as workshops, open houses and online surveys.

Project Flyers

Bilingual (English and Spanish) project flyers helped orient community members to the project goals and timeline and raised awareness of future project events and opportunities to participate. These were revised throughout the project duration and posted by City staff in public locations in advance of each community workshop.

Project flyer example

Engagement Round 1: Identifying Community Priorities

Stakeholder meetings

Three stakeholder meetings engaged participants in discussions about project priorities, issues, opportunities. Two meetings brought together property owners in the Study Area, while the second meeting was composed of local and regional agencies and organizations. Some key takeaways from these meetings are listed below.

Pioneer Road Area Property Owners

Two stakeholder meetings brought together property owners along (and proximate to) Pioneer Road to discuss the Pioneer Road Complete Streets project. The first meeting – held on November 11, 2019 – included Pioneer Road and Ward Road property owners. As a result of community interest in studying a route utilizing Volta Road (extending west from the original Study Area), a second stakeholder meeting was coordinated on January 29, 2020 to involve property owners between Volta Road and Los Banos Creek. In addition to providing important feedback during the discussion, participants were invited to submit written comments. Some key feedback is described below.

Key takeaways: Pioneer Road Area Property Owners

- Stakeholders are currently facing effects of traffic congestion on Pioneer Road. This includes increased use of Pioneer Road as an alternative to Pacheco Boulevard, especially during peak travel hours and school drop-off/pick-up times.

- Many attendees expressed concern over various aspects of the potential widening of Pioneer Road. Primary concerns included:
  - Potential requests for property takings that may affect existing businesses and farm operations, and assurance of adequate compensation for land to increase additional right-of-way.
  - Effect on properties and inhabitants in locations where houses are near the roadway.
  - Environmental effects from increased traffic, such as noise and air pollution.
  - Concern over the possibility of raised center medians on a future widened roadway, which limit access and require U-turns to access some properties. U-turns may be difficult for large farm equipment and large trucks. Some preferred center turn lanes on Pioneer to access properties without doing U-turns.
- Pioneer Road intersections at Ortigalita Road, Center Avenue, and Mercey Springs Road are in need of safety improvements such as improved signalization.
- Some are concerned about the impacts resulting from diverting truck traffic onto Pioneer Road from Pacheco Boulevard (e.g., noise and air pollution).
- Attendees inquired whether Volta Road to the west would be an option for connecting Pioneer Road with SR-152, rather than a new route near Los Banos Creek.

Pioneer Boulevard Property and Business Owner Stakeholder Meeting

Agencies and Organizations

The second targeted stakeholder meeting engaged local and regional agencies and organizations in a discussion about both the Pioneer Road Complete Streets Plan and the Pacheco Boulevard Complete Streets Plan. This meeting included twenty representatives from agencies and organizations such as:

- Grassland Water District
- Merced County Farm Bureau
- Central California Irrigation District (CCID)
- Merced County Association of Governments (MCAG)
- Merced College – Los Banos Campus
- Los Banos Unified School District
- Caltrans District 10
- Cultiva La Salud, a Community Based Organization (CBO) operating throughout the San Joaquin Valley
- Developers currently operating in Los Banos

Key Takeaways: Agencies and Organizations

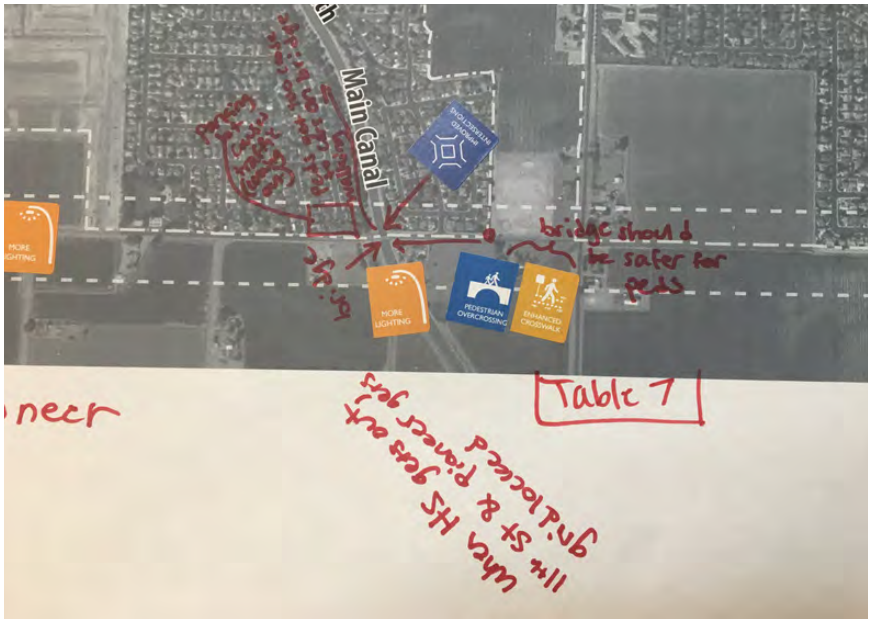
- CCID reported that the crossing of ditches, wells and the canal will require coordination with them and property owners regarding water rights and underground piping agreements. CCID will work with and advise property owners on issues related to potential construction.
- Grassland Water District noted its concerns over potential habitat encroachment and disturbance, due to proximity to grassland and marshland environments used by migratory birds.
- In discussion about a parallel route on Pioneer Road, there was concern over the accommodation of agricultural vehicles as well as large trucks. Design alternatives should take this into account.
- CCID reported no current projects related to irrigation facilities affecting Pioneer Road.

Community Workshop #1: Visioning, Challenges, and Opportunities

The first community workshop, held for both the Pioneer Road and Pacheco Boulevard Complete Streets Plans, was held on November 12, 2019 and had over 50 participants.

The meeting began with a presentation of project goals and background, an anticipated timeline, a preliminary description of existing conditions along each corridor, and a brief explanation of the small-group exercise conducted at tables following the presentation. A short question-and- answer discussion followed the presentation.

After the presentation and short discussion, attendees participated in exercises in groups of 5-8 people with one facilitator from the project team. Groups discussed challenges and opportunities for Pacheco Boulevard followed by challenges and opportunities for Pioneer Road. Participants used a large table map with an aerial view of Los Banos. First, participants and facilitators wrote comments and drew on the maps to indicate challenges,



Workshop #1 Group Exercise

including corridor-wide and location-specific challenges. Participants then indicated opportunities by marking up the maps and using stickers depicting desired street improvements.

Key Takeaways: Workshop #1

Challenges

- Diverting regional truck traffic onto Pioneer Road will increase congestion.
- Traffic impacts need to be adequately mitigated when new housing developments are completed.
- Potential property takings needed to accommodate roadway widening and other improvements will require negotiating with existing property owners.

Workshop #1

- Roadway and other improvements along Pioneer Road will change the rural-type road character of the area.
- Use of Pioneer Road by heavy vehicles has led to poor pavement conditions, and there should be pavement improvements in the near term.
- Speed limits are not enforced, accompanied by a lack of signage along Pioneer Road.

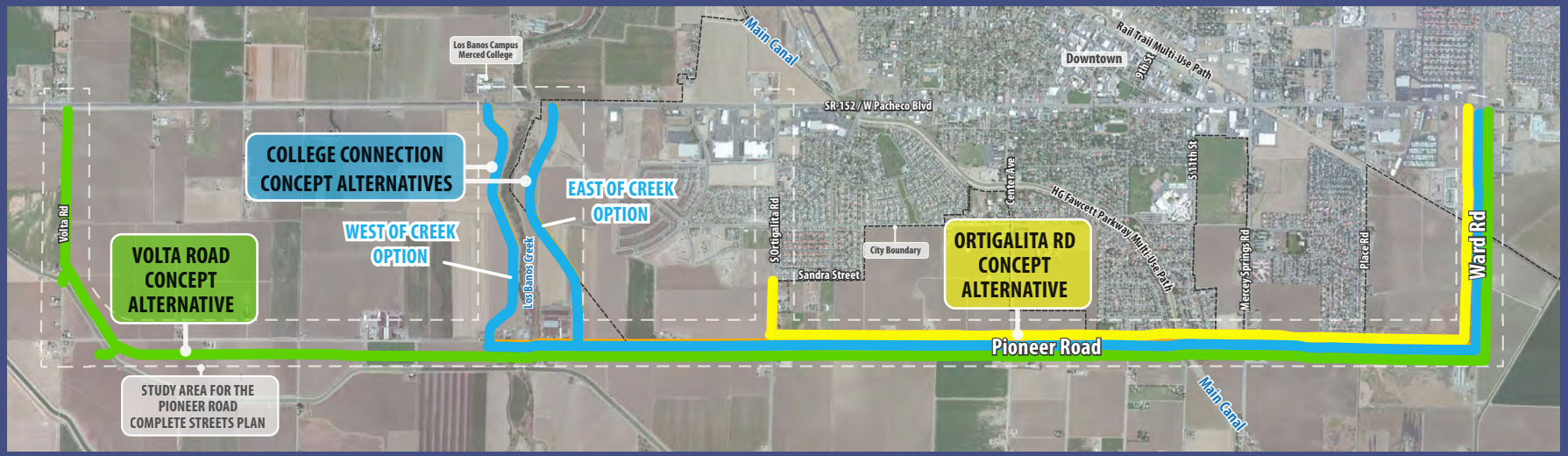
Opportunities

- Consider designating Volta Road as the western north-south connection between Pacheco Boulevard and Pioneer Road.
- Consider roundabouts as potential intersection configurations.
- Increase landscaping along Pioneer Road, utilizing consistent aesthetic standards that contribute to a unique identity.
- Implement the use of center turn lanes on Pioneer Road, so people accessing their properties are not forced to make U-turns.
- Consider sounds walls if Pioneer Road improvements will result in heavier traffic.
- Increase lighting at key locations such as the intersections with Origalita Road, Center Avenue, Mercey Springs Road, and Cresthills Park (where there is a bus stop), as well as the canal multi-use path.
- Increase traffic enforcement along Pioneer Road, either with increased highway patrol presence or speed cameras at intersections.

Development of Concept Alternatives

Based on community feedback received during the stakeholder meetings and the first workshop, the project team developed Concept Alternatives for Pioneer Road and potential routes connecting Pioneer Road with SR-152/Pacheco Boulevard. While the project initially focused on providing a connection to the west of Los Banos Creek, during the workshop and stakeholder meetings community members expressed interest in studying alternate options. As a result, the project team developed four Concept Alternatives with different points of connection on the western end, while all options utilized a Ward Road connection on the eastern end.

- **Alternative A – Volta Road:** This alternative would enhance existing roadways along Volta Road and Pioneer Road to Ward Road. This option was ultimately selected as a future "Phase 2" component of the Preferred Alternative.
- **Alternative B1 – West of Los Banos Creek:** This alternative (ultimately not pursued as a Plan recommendation) would have utilized the existing signalized intersection at Merced College and would not add another signal along SR-152. It could integrate an attractive pedestrian/bicycle path along Los Banos creek. However, it crosses some privately owned active farmland which would require negotiation with private parties. This option would have also required a widened bridge across Los Banos Creek.
- **Alternative B2 – East of Los Banos Creek:** This alternative would primarily use an already proposed road connection at a future development site to the east of Los Banos Creek. It would add another signalized intersection close to Merced College, but would prevent the need to replace or widen the bridge over Los Banos Creek. This option was ultimately selected as the Phase 1 Preferred Alternative.
- **Alternative C – Ortigalita Road:** This option (ultimately not pursued as a Plan recommendation) would have connected to existing Ortigalita Road. Ortigalita is a 4-lane roadway north of Sandra Street, and the project would need to extend the four-lane road to Pioneer Road.



Engagement Round 2: Concept Alternatives

Community Workshop #2 and project survey

The goals of the second round of community engagement were to present the Concept Alternatives developed based on input received in the first engagement phase, and to gather feedback from the community regarding their preferences for which of the Concept Alternatives should be selected as a Preferred Alternative. Project staff developed a set of questions meant to guide input through an online survey and an in-person exercise conducted during Workshop #2. In addition, the survey was administered in Spanish during a regular meeting of Cultiva La Salud held in Los Banos.

Workshop #2

The second community workshop was held for both the Pacheco Boulevard and Pioneer Road Complete Streets Plans on February 4, 2020, with approximately 50 participants from the community attending.

The workshop was organized in an "open house" format. It began with a presentation summarizing the previous workshop and introducing the workshop activity. During the workshop activity, participants visited various stations around the room, marking their answers to questions corresponding to each station in a workbook survey. Questions typically explained a concept, and then asked respondents to rank their preferences among multiple concepts or express their support for a proposed concept. Stations on one side of the room corresponded to Concept Alternatives for Pioneer Road Complete Streets Plan and stations on the other side of the room corresponded to concepts for the Pacheco Boulevard Complete Streets Plan. Each workshop station was staffed by project staff to discuss the concepts presented at each station, record feedback, and help assist participants to fill out the workbook survey.

Members of Cultiva La Salud participating in the project survey

For the Pioneer Road Complete Streets Plan Concept Alternatives, three stations depicted route alternatives for a north-south connection between Pacheco Boulevard and Pioneer Road on the western end. All alternatives used Ward Road as the connection on the eastern end. The alternatives are shown above on the previous page.

- Alternative A- Volta Road Connection
- Alternative B: Creek Connection (two options)
- Alternative C: Ortigalita Road

Workshop #2

A fourth station gathered feedback about aesthetic and functional design concepts for Pioneer Road and Ward Road, including landscaping, sound wall design, and roundabouts.

Online Survey

The Workshop #2 workbook survey for Pioneer Road was also adapted into an online survey, hosted by SurveyMonkey. The survey was available from February 11 through March 1, 2020, advertised periodically on Facebook and in e-blasts sent to the project email list. The survey had 126 respondents. The online survey questions were identical to those included in the Workshop #2 workbook survey, asking respondents to rate their support for various improvements.

Key takeaways below describe proposed concepts for which most online survey respondents, Workshop #2 participants, and participants in the Spanish survey workshop supported or did not support.

Online Survey screenshots

Key Takeaways: Workshop #2 and Online Survey

Connections Between Pioneer Road and Pacheco Boulevard

- There was high preference for Alternative A: Volta Road to Ward Road as a top choice for north-south roadway connections between Pioneer Road and Pacheco Boulevard. Multiple survey respondents commented that, while perhaps the most expensive, the Volta Road option was preferred as a long-term investment because it has the most opportunity to spread traffic over a larger area, further limit regional and local traffic along Pacheco Boulevard, and reducing congestion on Ortigalita Road and Badger Flat Road.
- Alternative B1: West of Los Banos Creek generally received limited support, while Alternative B2 (East of los Banos Creek) received moderate support.
- Alternative C (Ortigalita Road) was the least popular alternative, largely because it would increase congestion within the City along Ortigalita Road, and would not decrease congestion on Pacheco Boulevard as much as having a connection further west.

Aesthetic and Other Improvements

- Workshop participants and survey respondents expressed broad support for adding additional street lighting along Pioneer Road.
- Workshop participants and Survey respondents expressed broad support for adding sound walls along Pioneer Road if views are not jeopardized.

Workshop #2

Development of the Preferred Alternative

Following the second round of community engagement, the project team moved forward with the development of the Preferred Alternative, guided by feedback heard from community members.

The Preferred Alternative consisted of two phases that integrated two Concept Alternatives preferred by community members:

- **Concept Alternative B2 (East of Los Banos Creek) would be considered a near-term Phase 1 project consisting of a western connection between Pacheco Boulevard and Pioneer Road primarily along an already proposed road at a development site to the east of Los Banos Creek, with Ward Road providing the eastern connection.**
- **Concept Alternative A (Volta Road) would be included as a future Phase 2 project. During the first and second community workshops, stakeholder meetings, and through the Online Survey, many community members showed support for a high-quality connection along Volta Road between Pacheco Boulevard and Pioneer Road. The project team took this into consideration when developing the Preferred Alternative, although, upon further study, it became clear that a Volta Road connection would not be feasible for the nearer term because of the high cost and complexity of extending the project for an additional two miles, as well as the cost of a new widened bridge across Los Banos Creek. Nevertheless, the Volta Road connection was integrated into the Preferred Alternative as a future "Phase 2" project that should be considered in the future.**

As part of the development of the Preferred Alternative, the project team developed detailed diagrams showing draft configurations along the entire route. This image shows a proposed segment of Pioneer Road in the area around Place Road where there is currently no roadway.

18. PIONEER ROAD AT PLACE ROAD

Parcel Line · Project Right-of-Way · Curb · Travel Lane · Landscaped Median or Landscaping Along the Roadway · Bike/Pedestrian Path

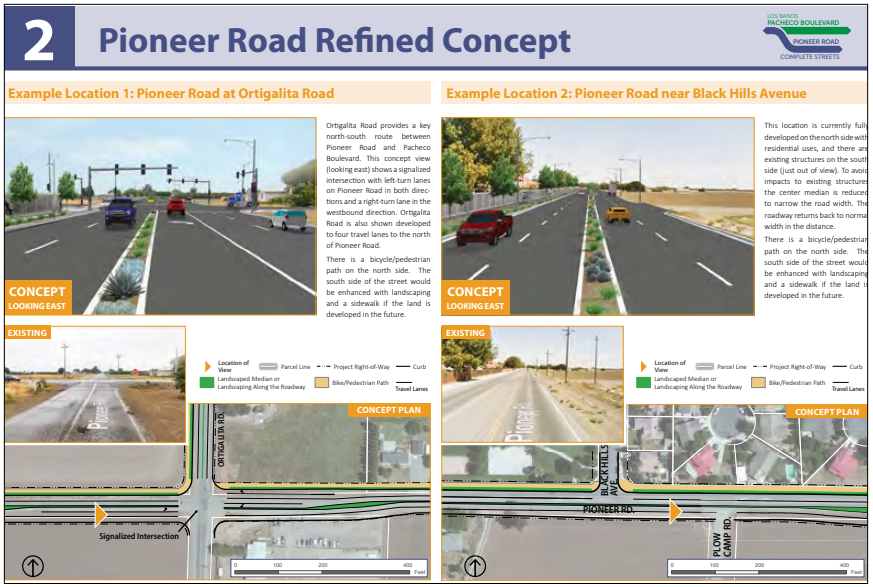
0 100 200 400 Feet

Open House at Los Banos Community Center

Engagement Round 3: Preferred Alternative

Community Open House and Virtual Community Workshop #3

Much like the second round of engagement, the third round of engagement offered two distinct opportunities—one virtual and one in-person—to provide feedback for both the Pioneer Road and Pacheco Boulevard Complete Streets Plan. The third Community Workshop was originally planned to be held in-person at the Los Banos Community Center like Workshops #1 and #2. However, the COVID-19 pandemic necessitated re-strategizing the third round of engagement. Instead of holding an in-person workshop, project staff provided two distinct opportunities—an in-person open house and a virtual workshop, described below.



Open House display board showing some of the Refined Concepts

In-Person Open House

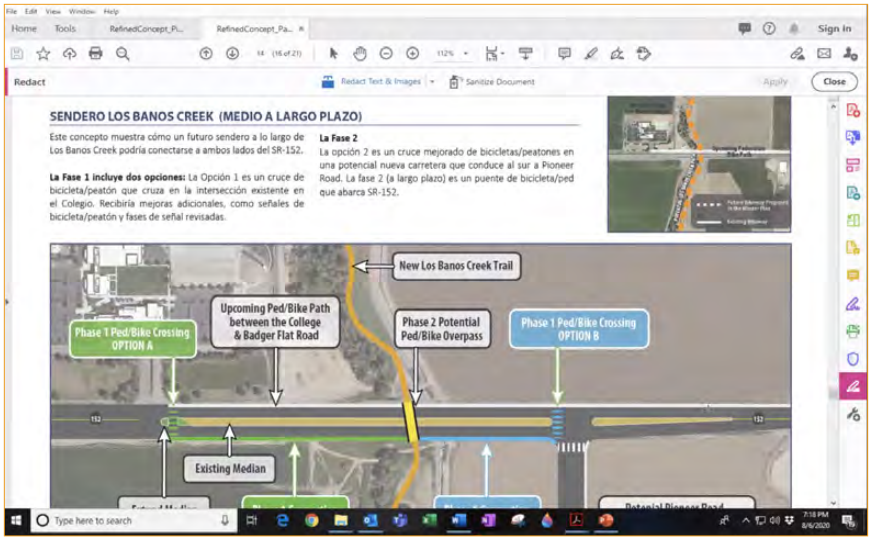
The in-person open house was held on July 29, 2020 at the Los Banos Community Center in the large multi-purpose gym over the course of three hours. In advance of the open house, those interested in attending RSVP'd through Eventbrite ticketing service with their estimated timeslot during which they would attend. This ensured that maximum social distancing could be observed during the event. Attendees visited 'stations' each with displays depicting refined concepts for Pioneer Road and Pacheco Boulevard and (also including Ward Road and a potential connecting road between Pacheco Boulevard/SR-152 and Pioneer Road). There were two stations exhibiting Refined Concepts for Pioneer Road. Attendees could discuss the concepts with City staff, ask questions, and provide feedback. City staff present at each station recorded feedback. Approximately 30 participants attended the open house.

Virtual Workshop #3

Workshop #3 occurred on August 6, 2020 using the Zoom online meeting platform and conducted simultaneously in English and Spanish. Project staff advertised the workshop in emails sent to the project email list and using the Project Facebook page and Facebook Event function. Those interested in attending were asked to RSVP through Eventbrite to receive the Zoom Link to the meeting. There were approximately 40 participants at Virtual Workshop #3.

The workshop began with a presentation detailing the refined concepts for Pioneer Road and Pacheco Boulevard. During the presentation, workshop participants submitted questions via Zoom chat messaging. Project staff read through and answered the questions submitted by attendees at the conclusion of the presentation. The presentation slides and a recording of the project presentation were also made available on the project website.

During the remaining portion of Virtual Workshop #3, workshop participants broke into three groups. One group discussed the refined concepts for Pioneer Road, Ward Road and a potential connecting road between Pacheco Boulevard and Pioneer Road), one discussed the refined concepts for Pacheco Boulevard, and the third group discussed the refined concepts for both projects in Spanish. Participants had the option of spending half of the time in one group and half of the time in another or staying in one group for the entire discussion duration (about 25 minutes). Each group had a facilitator and a note-taker from the project team. Participants asked questions and gave feedback on the Refined Concepts. At the end of the discussion period, the note-takers gave a report back to all workshop attendees highlighting the feedback received from each group. Feedback about Pioneer Road is summarized below.



Virtual workshop #3 using Zoom

Key Takeaways: Virtual Workshop #3 and In-Person Open House

Connections Between Pioneer Road and Pacheco Boulevard

- Participants expressed that while they prefer the Volta Road connection between Pioneer Road and Pacheco Boulevard, they recognize that this option was proposed as a long-term option because it is much more expensive and would require a much longer process than the connection east of Los Banos Creek (which was proposed as an interim short-term connection).

Aesthetic and Other Improvements

- Participants expressed broad support for additional speed monitoring technology near the intersection of Mercey Springs Road and Pioneer Road.

- Participants expressed concern regarding the cost of maintaining proposed landscaping along Pioneer Road (Note: the final plan would prioritize low maintenance, drought-tolerant landscaping, and cost of maintenance would be estimated though a detailed study).
- Property owners would like to have easier access to their property when turning left Pioneer Road. Workshop participants identified specific locations where to safely install U-turn designations and other turning lanes.
- Participants noted that trucks or larger vehicles may have difficulty making U-turns if the roadway and intersections are not wide enough. This could cause significant congestion issues on Pioneer Road in both directions.
- Participants expressed concerns regarding increased lighting and noise and the impact it may pose on birds and other sensitive species living along Pioneer Road.
- Participants expressed concerns regarding the proposed bike/ped path along Pioneer Road crossing 11th Street, which may pose a challenge in terms of vehicle/vehicle and vehicle/pedestrian conflicts. Many young motorists use 11th Street to access Los Banos High School. Added signalization at intersections around the High School should be studied further.

Development of the Pacheco Boulevard Complete Streets Plan

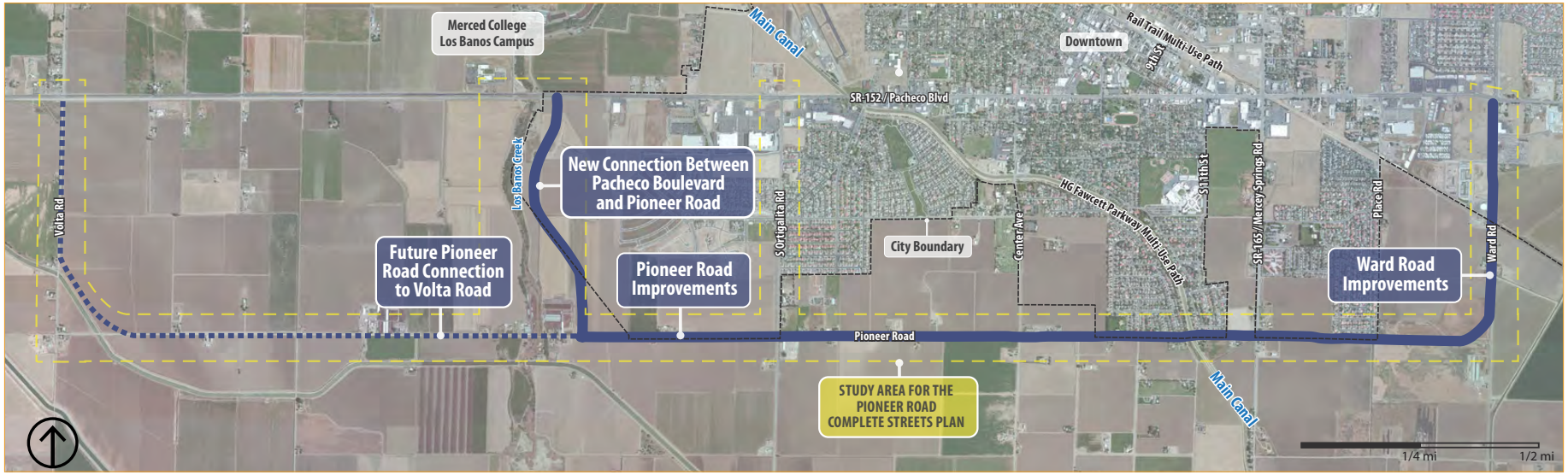
Following this third round of community engagement, project staff incorporated key feedback into development of the Draft Pioneer Road Complete Streets Plan in October 2020. Following public and City Council review of the Draft Plan, the Pioneer Road concepts were finalized in December 2020 and integrated into the Final Plan.

4 Plan Concept

Concept Overview

This chapter presents a set of improvements to form a continuous east-west route across the City's southern end, using a combination of existing roadways and future planned roadways. At either end, the route would connect to State Route 152 (SR-152), which is named Pacheco Boulevard within City Limits. The concept consists of two phases – a near-term phase and a long-term future phase (Figure 4.1).

Figure 4.1 Project Overview Map



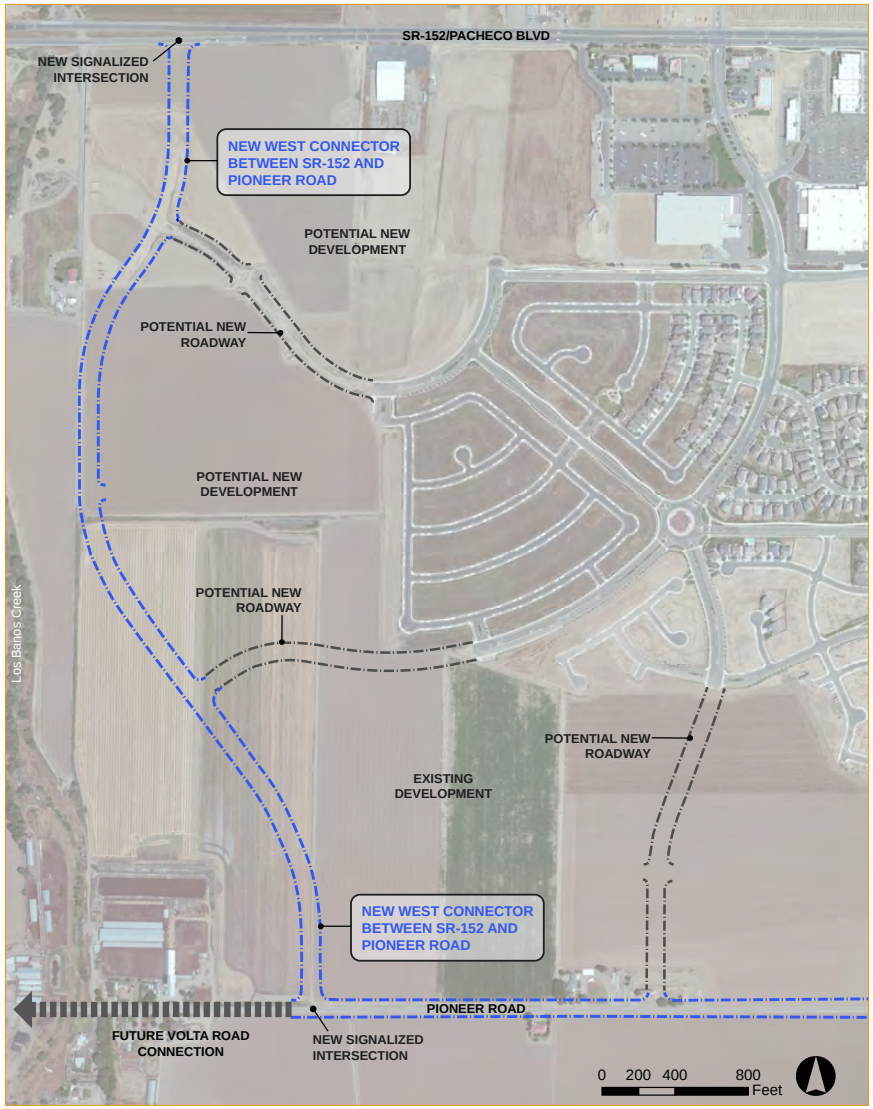
Route Overview

Phase 1 – Near Term

The near-term phase is presented in detail in this chapter. This phase consists of an approximately 6-mile-long route composed of the following segments from west to east:

- A new roadway – referred to as "West Connector" – east of Los Banos Creek between Pioneer Road and SR-152 (Pacheco Boulevard), which incorporates an already planned roadway to the west of recent and planned future development (Figure 4.2)

Figure 4.2 West Connector Alignment Diagram



This diagram shows the alignment east of Los Banos Creek that would connect SR-152/Pacheco Boulevard with Pioneer Road. The alignment would be connected to future development to the east. This diagram is based on plans for an approved planned development.

- A widening of existing Pioneer Road from two to four lanes between the West Connector and Mercey Springs Road (State Route-165)
- A four-lane extension of Pioneer Road between Mercey Springs Road and Ward Road
- A widening of Ward Road from two to four lanes connecting Pioneer Road with SR-152 (Pacheco Boulevard)

Phase 2 – Long Term

A long-term future phase would extend improvements along Pioneer Road about 2.25 miles west to Volta Road, and 1 mile north along Volta Road to SR-152. As described in Chapter 3, many community members preferred an improved route to Volta Road as a long-term investment.

Typical Roadway Configuration

For Pioneer Road, the concept's typical configuration has an 87-foot-wide project right-of-way composed of four lanes of traffic, a landscaped median, and a shared pedestrian/bicycle path (Class 1 Bikeway) along the north side. The configurations for Ward Road and the West Connector are identical to Pioneer Road – on Ward Road, the pedestrian/bicycle path is on the west side, and on the West Connector it is on the east side. For all roads, the sides of the street opposite the pedestrian/bicycle path would be enhanced with landscaping and a sidewalk if the land is developed in the future.

The roadway width is reduced by narrowing the center median where required to limit impacting existing properties and structures.

Figure 4.3 Pioneer Road (Looking East) and Ward Road (Looking North)

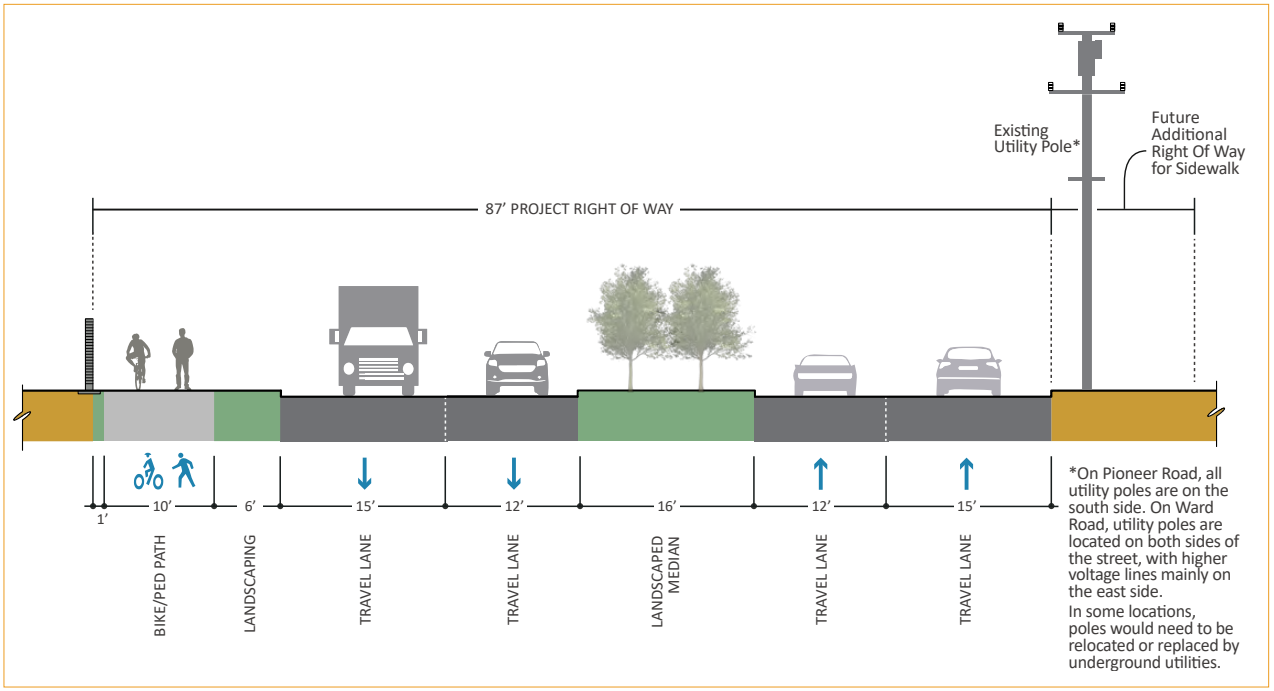
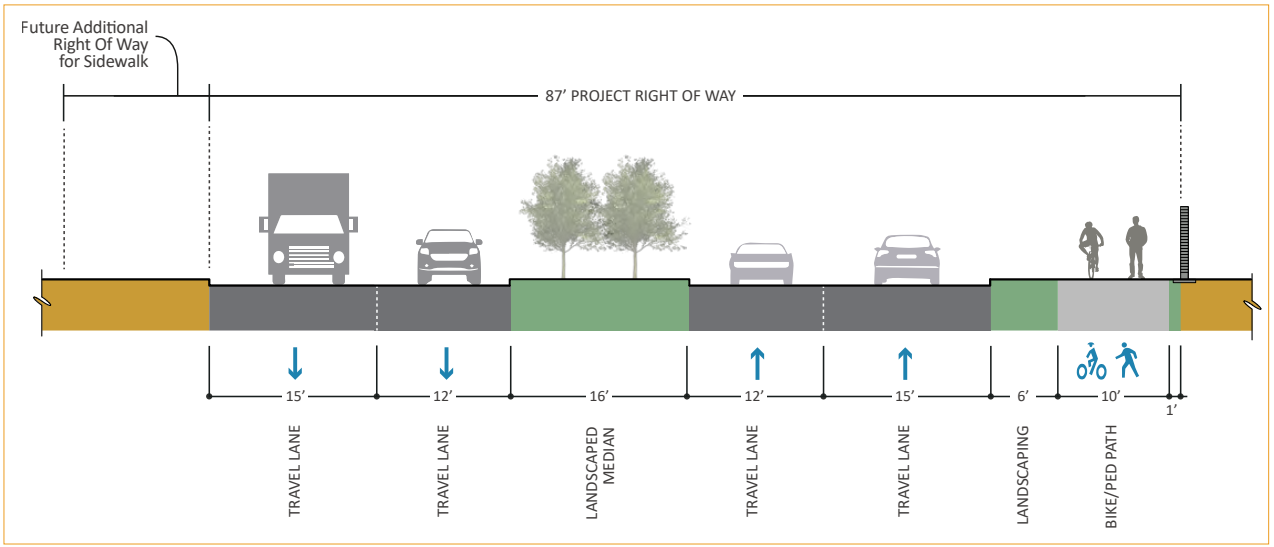


Figure 4.4 West Connector (Looking North)



Concept Visualizations

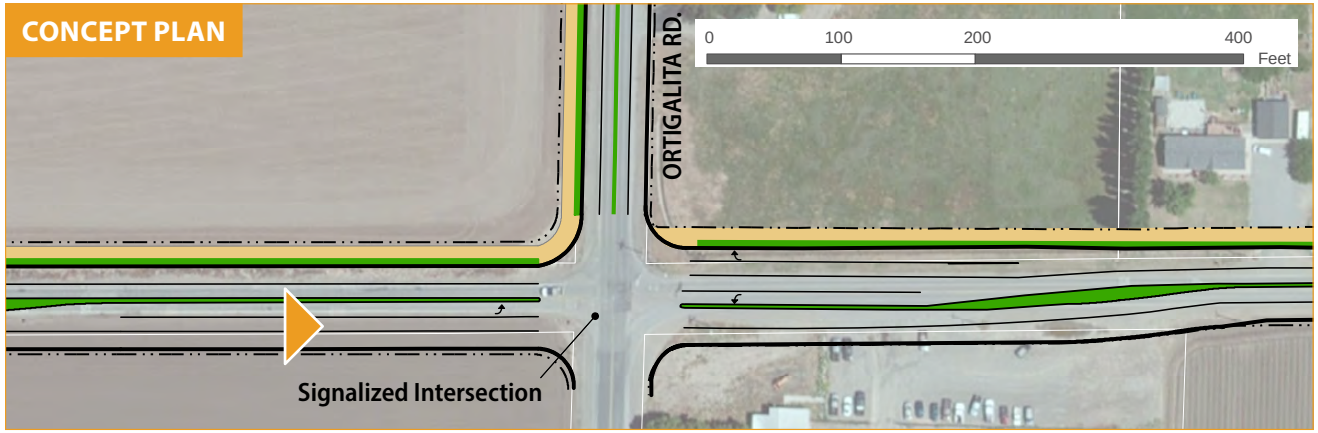
This section shows three concept visualizations at different locations along Pioneer Road to illustrate concept configurations and appearance. They show what an enhanced Pioneer Road may look like in the future – an attractive boulevard composed of four travel lanes, a pedestrian/bicycle path, and landscaped medians in some locations.

Example Location 1: Pioneer Road at Ortigalita Road

Figure 4.5 Concept Visualization - Pioneer Road at Ortigalita Road (Looking East)

Ortigalita Road provides a key north-south route between Pioneer Road and Pacheco Boulevard. This concept view (looking east) shows a signalized intersection with left-turn lanes on Pioneer Road in both directions and a right-turn lane in the westbound direction. Ortigalita Road is also shown developed to four travel lanes to the north of Pioneer Road.

There is a pedestrian/bicycle path on the north side. The south side of the street would be enhanced with landscaping and a sidewalk if the land is developed in the future.



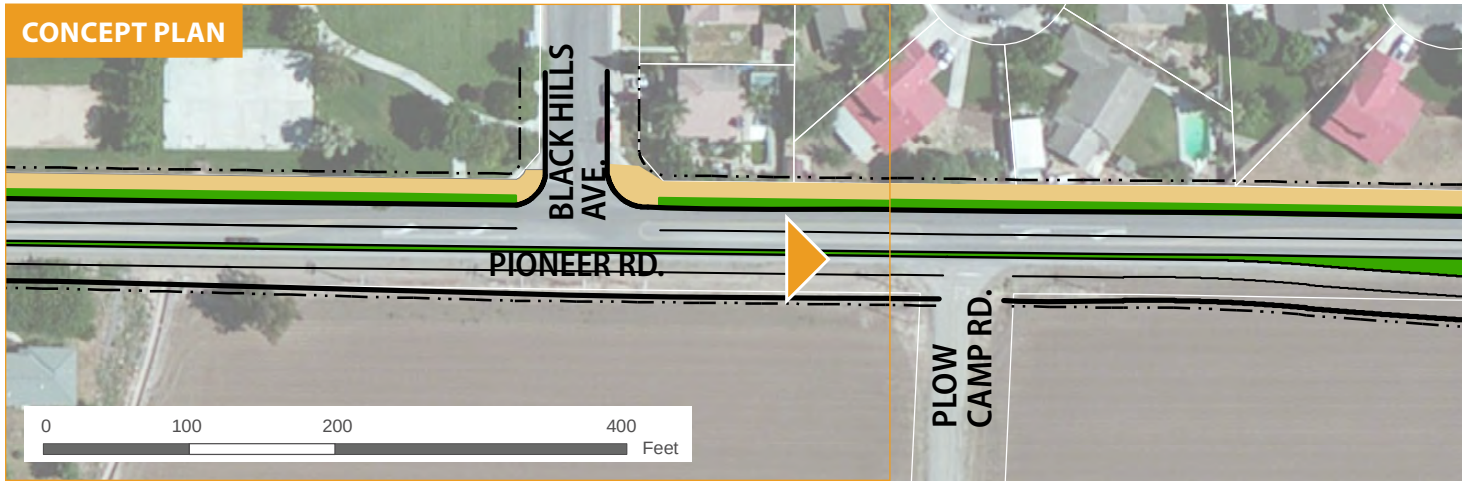
- Location of View
- Project Right-of-Way
- Curb
- Travel Lanes
- Parcel Line
- Bike/Pedestrian Path
- Landscaped Median or Landscaping Along the Roadway

Example Location 2: Pioneer Road near Black Hills Avenue

Figure 4.6 Concept Visualization – Pioneer Road near Black Hills Avenue (Looking East)

This location is currently fully developed on the north side with residential uses, and there are existing structures on the south side (just out of view to the west). To avoid impacts to existing structures, the center median is reduced to narrow the roadway width. The roadway returns to normal width in the distance.

There is a pedestrian/bicycle path on the north side. The south side of the street would be enhanced with landscaping and a sidewalk if the land is developed in the future.

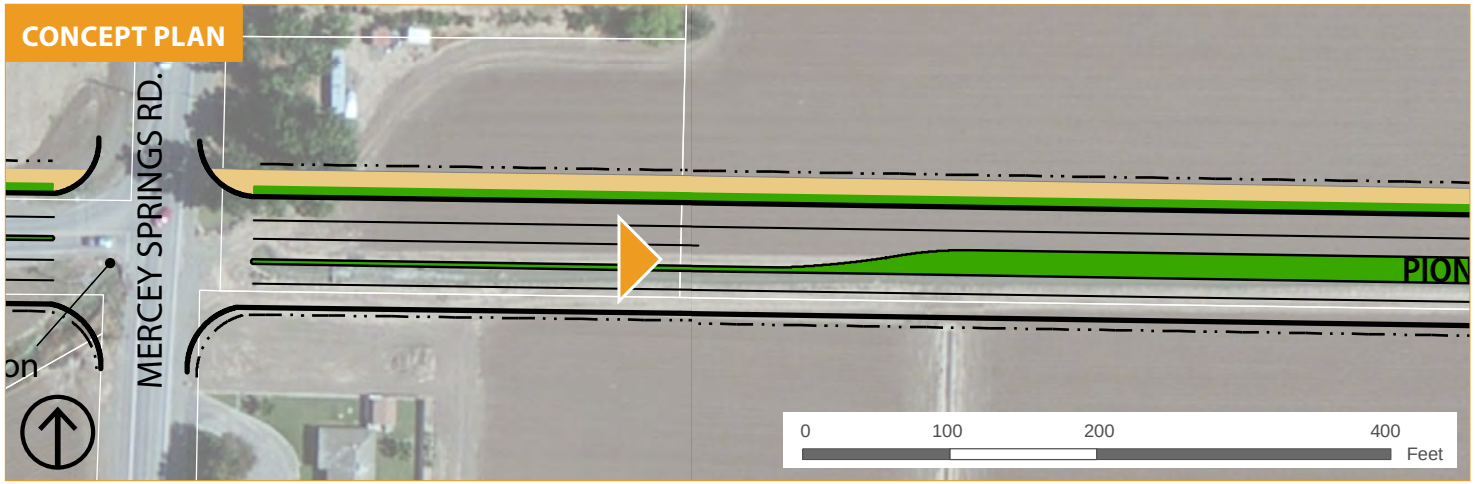


Example Location 3: Pioneer Road at Ortigalita Road

Figure 4.7 Concept Visualization – Pioneer Road east of Mercey Springs Road (Looking East)

East of Mercey Springs Road, Pioneer Road would have two travel lanes in each direction and a 16-foot-wide landscaped median.

There is a pedestrian/bicycle path on the north side. The south side of the street would be enhanced if the land is developed in the future.



- Location of View
- Project Right-of-Way
- Curb
- Travel Lanes
- Parcel Line
- Bike/Pedestrian Path
- Landscaped Median or Landscaping Along the Roadway

Roadway Design – Project Right-of-Way

Roadway Geometric Design

Geometric design refers to the dimensions and arrangements of the physical features of a roadway including pavement widths, roadway alignment (path and curvature of the roadway), slopes, intersections, and other features that can affect roadway operations, safety and capacity. The geometry of the roadway should be consistent with the intended functional classification of the roadway, and it should fit the characteristics and needs of all of its users. Pioneer Road is designated a four-lane arterial in the General Plan. Note that a future improved route would *not* be designated a truck route.

Through its geometric design, the Pioneer Road concept seeks to accommodate larger vehicles such as trucks and agricultural vehicles. Design elements including roadway alignment, widths, and intersection design must allow for the larger areas that these vehicles require for safely maneuvering curves along the roadway, making left and right turns, and making U-turns where applicable. Future engineering studies will further refine roadway geometric design for the concept presented in this Plan.

Design Speed

Design speed, not the same as the posted speed limit, is used to establish design features for the roadway that will promote safer driving at an appropriate speed. The posted speed limit is typically equal to or less than the design speed and set by operators of the State highway agency for regulation. The roadway design speed for Pioneer Road and Ward Road is 55 miles per hour (mph) and 45 mph for the West Connector to Pacheco Boulevard. The posted speed limit for these roadway segments will be determined in the future.

Intersection Design and Treatment

The Plan Concept proposed improvements to existing intersections at the following locations, from west to east:

- SR-152 (Pacheco Boulevard)/West Connector intersection
- SR-152 (Pacheco Boulevard)/Ward Road
- West Connector/Pioneer Road
- Ortigalita Road/Pioneer Road
- Center Road/Pioneer Road
- SR-165 (Mercey Springs Road)/Pioneer Road
- SR-152 (Pacheco Boulevard)/Ward Road

Improvements within the State right-of-way (SR-152 and SR-165) would be designed to California Department of Transportation (Caltrans) standards. Improvements outside of State right-of-ways will be designed per City standards. Note that due to the inherently larger footprint of intersections with right-turn lanes, greater right-of-way may be required along Pioneer Road at intersections with significant right-turn movements, such as Pioneer Road at the West Connector, Ortigalita Road, Center Avenue, and Mercey Springs Road. Intersection design, including signalization and lane configurations, will be refined in future plans.

The following are some key components of intersection design along the proposed route.

- Street lighting at intersections should be installed per the City's standards and specifications. See the "Street Lighting" section below.
- Intersections along the pedestrian/bicycle path line of travel (across streets that intersect the Plan Concept route) should include enhanced pedestrian and bike crossings, such as high-visibility crosswalk striping, markings, and additional signage. See the previous "Bicycle/Pedestrian Path" section for additional discussion.

- Future planning stages should study demand for – and feasibility of – separate signal phases for people walking and bicycling across side streets when traveling along the pedestrian/bicycle path.
- Intersections with arterial roadways should include, where right-of-way is adequate, dedicated right-turn lanes, where the right-of-way is adequate, to avoid traffic back-ups in travel lanes, ensure traffic flow, and reduce potential for vehicle collisions.
- Intersections with connectors may incorporate right-turn pockets if there is available right-of-way.
- All intersections – both signalized and unsignalized – allowing left turns onto existing roadways should have dedicated left-turn lanes on the Plan Concept route. The 16-foot-wide median narrows to 3 feet wide at locations with dedicated left-turn lanes.
- While most turning movements will occur at signalized intersections, there may be a limited number of unsignalized locations allowing turns and, potentially, U-turns. At unsignalized locations, left turns onto the new route can be more safely accommodated by a left-turn acceleration lane adjacent to a narrowed center median. This allows motorists turning left onto the new route to safely clear the intersection safely out of the way of oncoming traffic coming from the left, and use the merge lane to accelerate and merge into traffic in the desired direction of travel. Note that the concept diagrams do not incorporate left-turn acceleration lanes at unsignalized locations, but they will be studied for inclusion in future planning for Pioneer Road.
- Along most segments of Pioneer Road, Ward Road, and the West Connector, a raised center median restricts left turns. Therefore, signalized intersections closest to raised center medians along Pioneer Road must be wide enough for larger vehicles to perform U-turns to access properties. Roundabouts were considered for inclusion in the Plan Concept, but they were not proposed due to lack of right-of-way, concerns about large trucks and agricultural vehicles being able to navigate through a roundabout, and lack of support from the community.

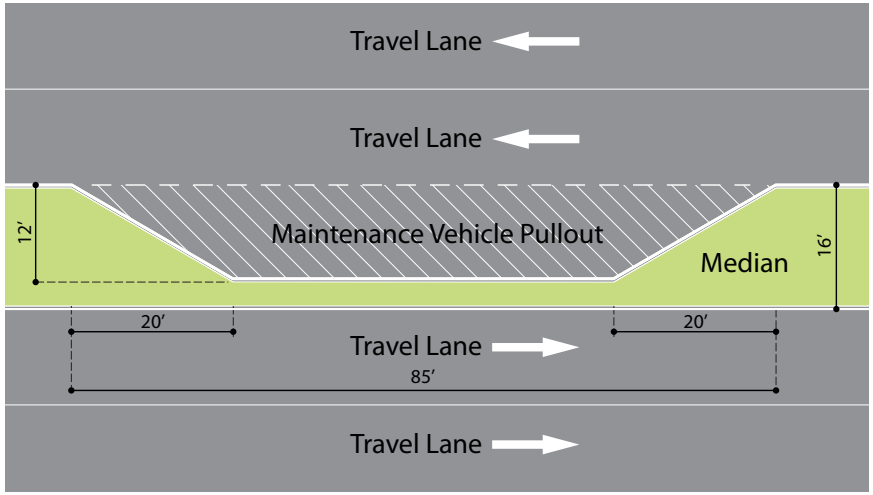
Roadway Medians

Configuration

The Pioneer Road Complete Streets Plan proposes to add a landscaped median along the center of the roadway, which will serve as an attractive greening element and soften the visual impacts of the roadway. The concept design includes a landscaped median varying in width from 4 to 16 feet, resulting in a total right-of-way of 73 to 87 feet, respectively. The median width is reduced in places along the roadway to avoid impacting existing properties and structures. The maximum 87-foot right-of-way provides room for dedicated left-turn lanes roadway at intersections, which would typically be 12'-wide lanes alongside a 4'-wide median. See "Landscaping" on page 4-14 for discussion about planting types.

In addition to aesthetic benefits, the median will provide significant benefits to safety by minimizing left-turn movements from or onto the roadway. This reduces areas of conflict that are more prone to front, side, and rear collisions. Having fewer crossings also supports efficient traffic flow.

Figure 4.8 Maintenance Vehicle Pullout



As layout and design of the Pioneer Road project proceeds, the project team will consider an interim solution to allow left turns from/into certain minor streets and driveways that are not close to intersections allowing U-turns.

The landscaped median can incorporate maintenance vehicle pullouts (Figure 4.8) at interspersed locations along the route. Maintenance vehicle pullouts will allow workers to park their vehicles safely when they perform landscape and roadway maintenance. These pullouts are particularly important on arterial roadways with high travel speeds.

Landscaping

- Median landscaping would consist of trees, groundcovers, and other low-growing plants. The Pioneer Road Complete Streets Plan recom-

Examples of Landscaped Medians

Examples of landscaped medians. The top image is Badger Flat Road in Los Banos.

mends planting low-maintenance, water-efficient, and native landscaping within the median for water efficiency and minimal City maintenance.

- The landscaped median would require regular maintenance, including watering and trimming, to ensure any vegetation is not blocking driver sightlines or producing debris on the roadway.

Property Access

The center median proposed along the roadway will sometimes prevent drivers from making left turns to directly access driveways and fronting properties. The Plan Concept seeks to balance the safety and traffic flow benefits of a center median with the needs of residents and businesses to conveniently access their properties. To access properties where a median prohibits left turns into the property, there should be nearby opportunities for drivers to perform U-turns at intersections and breaks in the median. At these locations, the roadway should be configured with a left-turn lane, and there should be adequate width to accommodate turning movements of large vehicles like trucks and agricultural vehicles.

To provide better access for driveways, the Plan includes curb cuts for existing driveways and access to farms, accommodating trucks and agricultural vehicles when necessary. (Note that the segment diagrams beginning on page 4-18 are conceptual in nature and do not show individual access points.)

Bicycle/Pedestrian Path

Class 1 pathways are separated, off-street corridors shared for pedestrian and bicycle travel. Their separation from vehicle traffic provides a safe and comfortable route to bike and walk for recreation and getting to destinations.

To provide safe, convenient, and comfortable travel and recreation for bicyclists and pedestrians, the Pioneer Road Complete Streets Plan proposes a bike/pedestrian pathway along the entire proposed alignment, including the West Connector (new north–south route to the east of Los Banos Creek), Pioneer Road, and Ward Road. On the west side, this bike/pedestrian pathway would connect to the upcoming Class 1 pathway on the north side of Pacheco Boulevard extending from Merced College – Los Banos Campus to Badger Flat Road. On the east side, the path would connect to Pacheco Boulevard at Ward Road. The new path will also connect to the Rail Trail at Ward Road and the Main Canal bike/pedestrian path at Pioneer Road.

The proposed path is consistent with the 2018 City of Los Banos Bicycle Pedestrian Plan's Projects #F1 and #I1 as part of its recommended Los Banos Bicycle Commuter System, and it is an upgrade in bikeway classification from what is proposed in the City of Los Banos General Plan 2030. The General Plan proposes to widen Ward Road and Pioneer Road into four-lane arterials with Class 2 on-street bike lanes (not Class 1 bike path). The General Plan also proposes a Class 1 trail along Los Banos Creek, which is consistent with this plan's recommendation.

Configuration

The proposed bike/pedestrian path would be located along the east side of the West Connector, the north side of Pioneer Road, and the west side of Ward Road to provide a continuous pathway. This bike/pedestrian pathway would be 10 feet wide minimum, separated from the roadway by a 6-foot-wide landscaping strip and separated from adjacent developed properties by a fence or wall barrier.

Crossings

At-grade crossings at intersections should provide adequate traffic control devices, such as signs, crosswalks, flashing lights, or signalization, depending on the circumstances. Because the overall Pioneer Road Complete Streets concept does not include pedestrian or bicycle infrastructure on the side of the street opposite the Class 1 path, there will be limited pedestrian crossings across the enhanced roadways. Therefore, the crossings design tools discussed here are primarily for crossings *along the proposed bike/pedestrian path* that cross side streets or property entrances.

- **Major Intersections.** Major crossing intersections should be signalized and could provide advanced signaled crossing for pedestrians and bicyclists. Curb ramps and curb cuts should meet the requirements of the Americans with Disabilities Act (ADA) and cover the full width of the bike/pedestrian pathway. Crossings at major intersections should also provide additional safety features, such as high-visibility pavement markings and pedestrian/bicycle refuge islands, if possible.
- **Minor Intersections.** At crossings where there is no traffic signal, the design of the bike/pedestrian pathway crossing should employ any number of safety tools, including high-visibility pavement markings, trail and roadway crossing signs, and median pedestrian/bicycle refuges, if possible.
- **Driveways.** If possible, at major driveways, the bike/pedestrian pathway should be visibly painted with white or green skipped conflict striping to notify drivers of the pathway. Signage could also be added at particularly well-used driveways.

Surface

There are several options for the bike/pedestrian pathway's surface material, which include concrete and asphalt. Concrete is more expensive to install initially compared to asphalt, and it has more visual options such as color and stamp patterns. Over time, a concrete trail will need less maintenance than asphalt. However, although asphalt requires more maintenance due to its softer consistency, it is generally easier and less expensive to construct and repair than concrete. The typical project life of an asphalt trail is 7 to 15 years, while a concrete trail can last 25 years or more. Asphalt is also a more preferred surface for running and biking because of its softer and more-even consistency.

For the proposed Class 1 path, this Plan recommends a concrete surface, particularly for its longevity. An adjustment to the proposed configuration could be to provide a soft surface for those walking or running by adding a strip of decomposed granite (a dirt-like material that does not wash away with water) adjacent to the concrete path.

Amenities

Providing amenities for the bike/pedestrian pathway can enhance its comfort and usability. Amenities can include lighting, landscaping, and wayfinding signs.

Example Bike/Pedestrian Paths

Bike/Pedestrian Path Lighting

- **Lighting.** In addition to roadway lighting, pedestrian-scale lighting can provide visibility, security, and beautification for its users. Lighting should be energy-efficient, consistently spaced throughout the pathway, designed for a "pedestrian scale" at 12 to 20 feet in height above the pavement, and could be attached to streetlight poles.
- **Landscaping.** Low-level plants and/or street trees should be planted within the 6-foot-wide landscaping strip to provide a vegetated buffer from roadway traffic. Street trees offer shade for pedestrians and bicyclists.
- **Wayfinding.** Wayfinding signs at the pathway's entry ways, at decision-making points, and at regular intervals as needed can help users identify and navigate the pathway.

Speed Enforcement

Speed enforcement can help regulate high and excessive speeds along roadways, improving safety for drivers, pedestrians, and bicyclists. Keeping drivers from speeding and improving safety perceptions of key roadways can also encourage increased use by active modes of transportation, such as walking, biking, and riding transit. To regulate speed and maintain safe roadway conditions for the proposed future roadways, this Plan recommends working with local authorities to provide increased vehicle speed enforcement, particularly during key times of day such as at night or during school hours. Additional speed enforcement measures also include the installation of vehicle speed monitoring devices, such as speed trailers, video cameras, and shorter yellow lights at key locations along high-speed corridors.

Street Lighting

- Streetlights should be installed per City standards and specifications.
- Light poles should be spaced at a maximum distance of 300 feet on each side of the street. Streetlights should be staggered on opposing sides of the street, ensuring that a streetlight is located at minimum 150-foot intervals, alternating from one side of the street to the other.
- Four light poles should be installed at intersections with primary streets such as Ortigalita Road, Center Avenue, and Mercey Springs Road, with one streetlight placed at every corner of the intersection.

Street Lighting Examples

- Two light poles should be installed for intersections where Pioneer Road meets a collector street (two-lane street), such as Blue Ridge Avenue and Place Road.
- Light pole placement should not conflict with driveways, fire hydrants, pedestrian infrastructure, and other utilities.

Other Utilities

There are overhead electrical lines along Pioneer Road and Ward Road. On Pioneer Road, utility poles are mostly located on the south side, and on Ward Road they are located on both sides with higher-voltage lines mainly on the east side. In future improvements, high voltage power lines will remain above ground. Some existing utility poles located within the potential future right-of-way will have to be relocated.

Some low voltage lines can be moved underground, along with telephone and data lines. This is advantageous for both practical and aesthetic reasons. Proponents of utility undergrounding argue that the value of undergrounding is derived from improved service reliability, greater public safety, and enhanced aesthetics.

Future planning stages will determine other existing utilities that may be in conflict, and will propose appropriate measures to resolve conflicts, if any.

Landscaping

Landscaping enhancements along Pioneer Road, Ward Road, and the West Connector promotes a cohesive character for the Plan Concept. The use of large-scale urban design streetscape planting offers a wide variety of benefits, including improved air quality, reduction of the urban heat island effect, enhanced safety, and overall beautification. Landscape strategies for the Plan Concept include raised medians and landscape strips.

Raised Landscaped Medians and Landscape Strips

Landscaped medians are located at the center of the roadway and landscape strips between the roadway and the pedestrian/bicycle path. The raised medians will enhance vehicular safety between opposing lanes of travel. In addition to beautifying the street, landscape strips will shield pedestrians and cyclists from vehicular roadway traffic, provide shade, and add visual interest for people using the path.

Opportunities for Stormwater Capture

A further study should be done to investigate opportunities of stormwater capture to help clean, collect, and infiltrate urban runoff along the route. Permeable pavers should also be considered as an alternative to concrete paving as another strategy to allow water to infiltrate soil layers, reducing the amount of runoff and ground pollution.

Plant Palette

The proposed plant palette for these landscaped areas includes a variety of drought-tolerant, climate-appropriate, and low-maintenance plantings to ensure the longevity of these areas. These plantings are composed of a variety of grasses, shrubs, and trees. The existing landscaped areas along Badger Flat Road provide a good example of a successful landscape median that incorporates a variety of low-maintenance and drought-tolerant shrubs and grasses.

The trees will be specially selected for each area based on growth characteristics, such as canopy size and overall height. Trees planted on the medians will generally be planted with deciduous trees and have an average canopy height of 30 to 60 feet and high-branching growth patterns in order to mitigate vehicular sight-line obstructions. Trees at landscape strips will generally be planted with evergreen trees with an average canopy and height size of 20 to 50 feet to maximize shade potential.

The plant palette on the following page shows some recommended planting and tree types. An additional reference to review is the City of Los Banos' Community Design Standards, Appendix D: Supplemental Plant List.

Dry-Garden Palette

Botanical Name	Common Name	
Parkinsonia florida	Palo Verde	
Dasylirion wheeleri	Desert Spoon	
Agave 'Blue Glow'	Agave 'Blue Glow'	
Hesperaloe parviflora	Red Yucca	
Agave geminiflora	Twin Flowered Agave	
Cistus ladanifer	Gum Rockrose	

Low-Water Palette

Botanical Name	Common Name	
Pistacia chinensis	Chinese Pistache	
Chamaerops humilis var. argentea	Blue Mediterranean Fan Palm	
Arctostaphylos 'Sunset' manzanita	Sunset' manzanita	
Salvia greggii 'Furman's Red'	Furman's Red Autumn Sage	
Dietes bicolor	Fortnight Lily	
Lomandra longifolia 'Breeze'	Dwarf Mat Rush	

Future Additional Right-of-Way

Sidewalks

The Plan Concept omits sidewalks on the side of the street opposite the pedestrian/bicycle path. Sidewalks would be constructed as part of any future development that may occur at appropriate locations. The addition of sidewalks would also require crosswalks across the roadway for pedestrians to access both sides of the street.

Sound Walls

Sound walls are the most effective method of mitigating roadway noise impacts, seen commonly in Los Banos residential developments. Sound walls will be constructed as part of future development that occurs along Pioneer Road. In Figures 4.3 and 4.4 on page 4-3, sound walls are shown adjacent to the pedestrian/bicycle path. In addition, any future development on the opposite side of the street could include a sound wall along with new sidewalks. Future environmental studies will provide recommendations for sound wall design, including height.

Sound Wall Design Examples

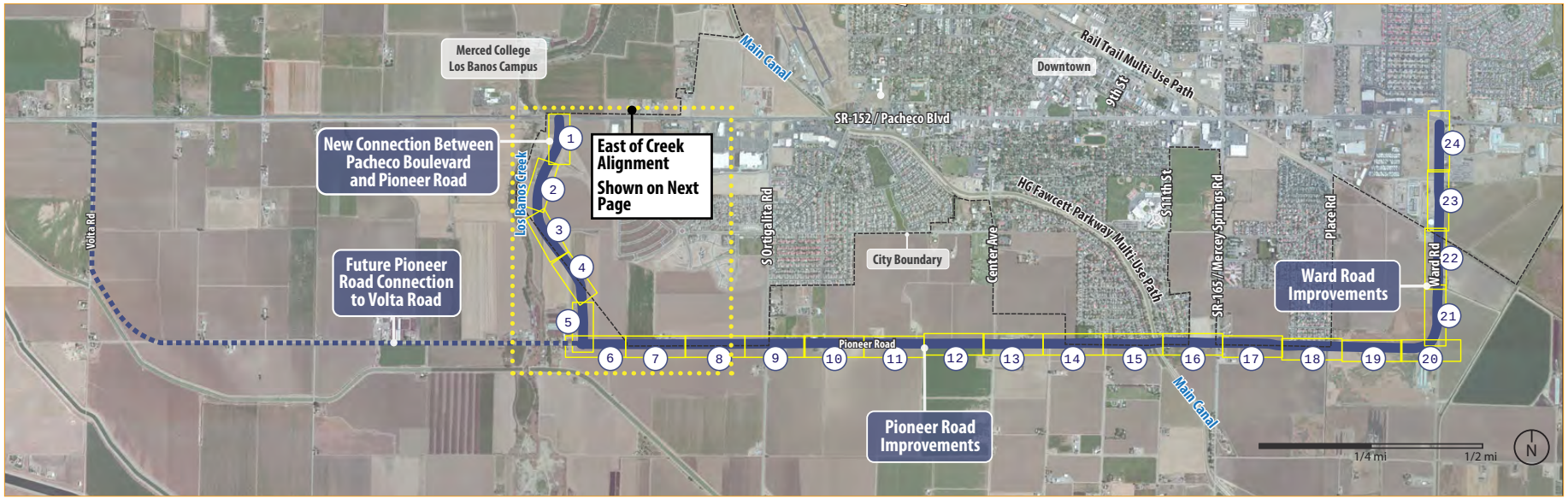
Concept Alignment

In this section, the concept alignment is shown in detail in a set of 24 figures. The key map below shows the numbered segments. The area in the dotted-yellow rectangle is shown in more detail in Figure 4.2 on page 4-2.

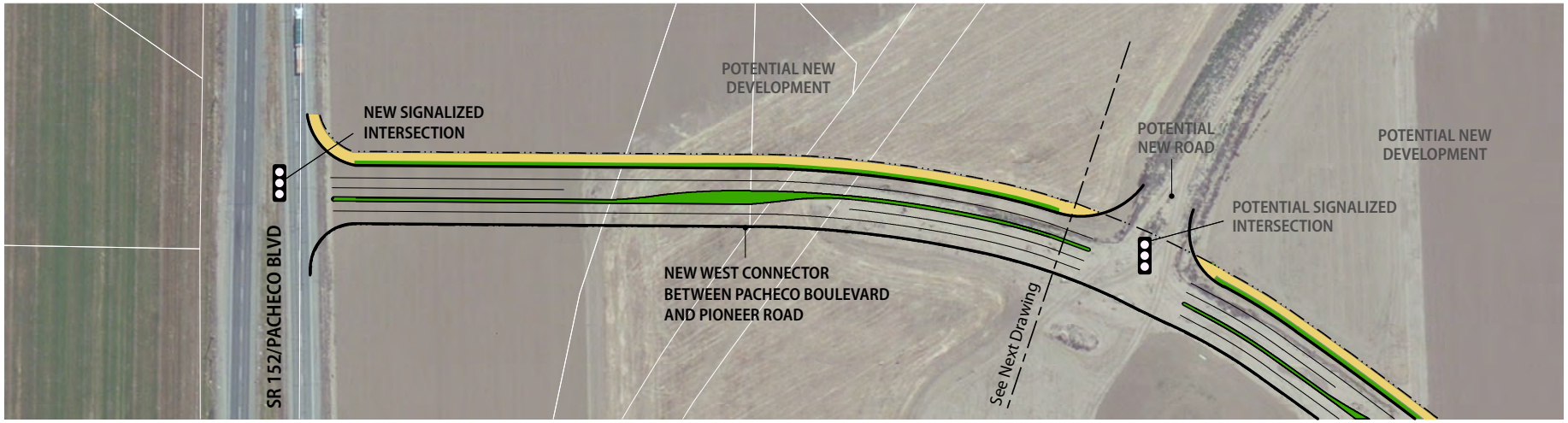
When reviewing the concept alignment diagrams, note the following regarding driveways, crosswalks, and sidewalks:

- Existing and proposed driveways, crosswalks, and pedestrian-only sidewalks are not indicated on these concept diagrams.
- Enhanced pedestrian/bicycle crossings are proposed along the north side of Pioneer Road, east side of the West Connector, and west side of Ward Road.
- Additional new sidewalks may be provided in the future as part of any potential development along the south side of Pioneer Road, west side of the West Connector, or east side of Ward Road.
- All properties accessed via Pioneer Road will maintain driveway access, with the potential exception of corner lots that have access to intersecting side streets.

Figure 4.9 Concept Segments Key Map



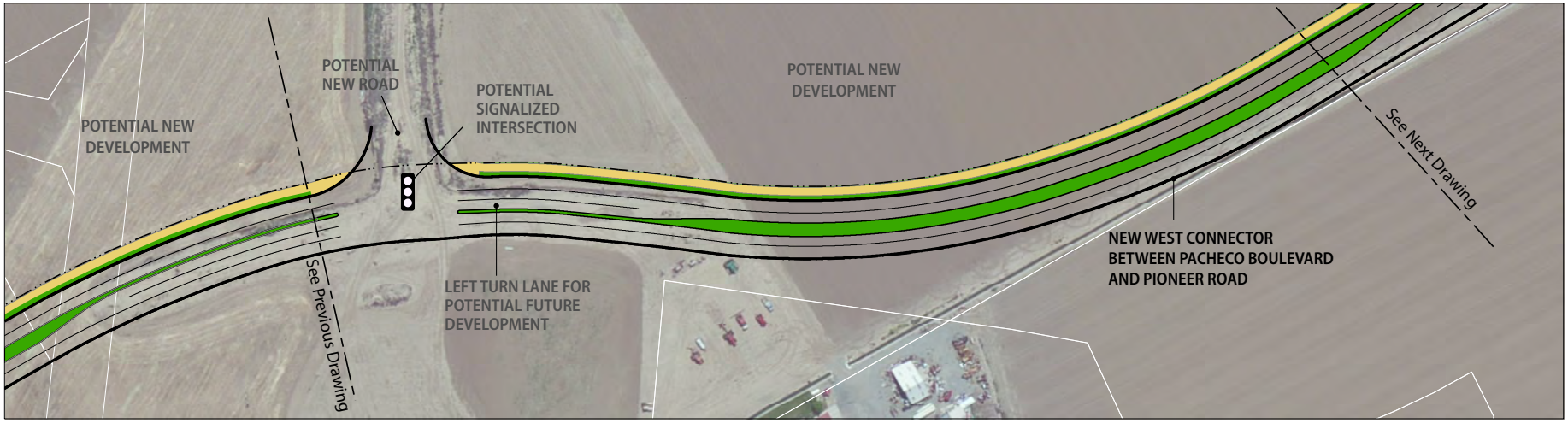
West Connector (SR-152/Pacheco Boulevard to Pioneer Road Connection)



1. WEST CONNECTOR AT SR-152/PACHECO BOULEVARD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

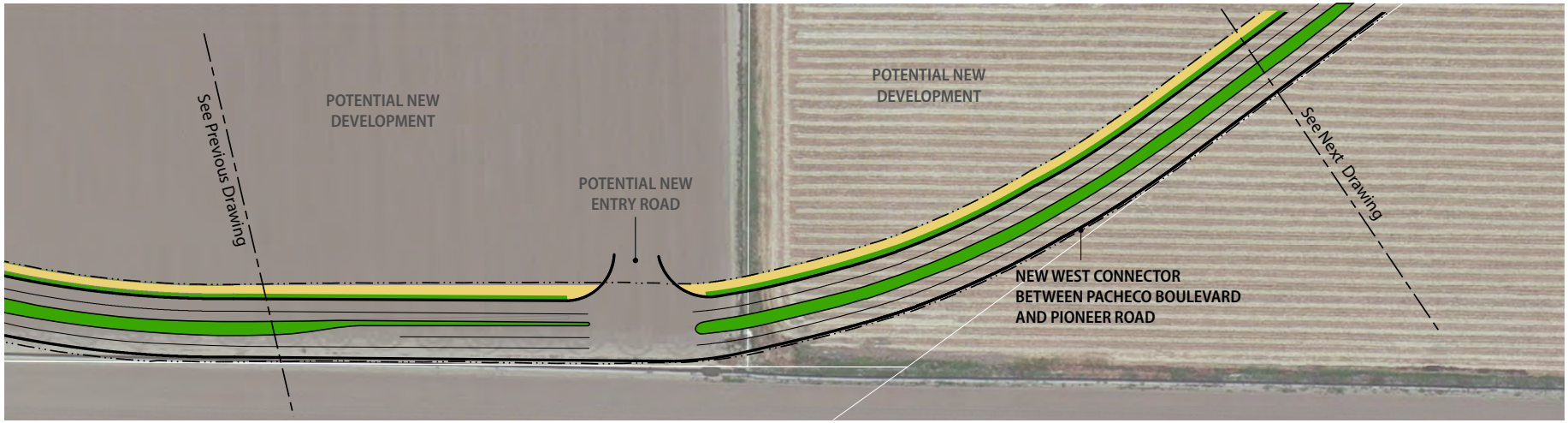


2. WEST CONNECTOR BETWEEN SR-152/PACHECO BOULEVARD AND PIONEER ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

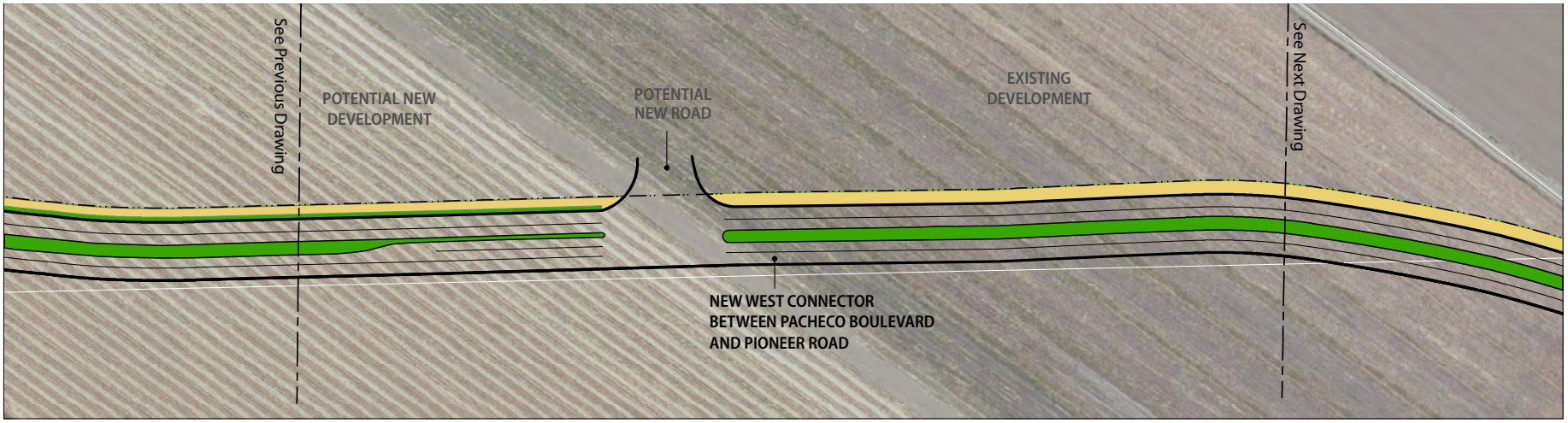
Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



3. WEST CONNECTOR BETWEEN SR-152/PACHECO BOULEVARD AND PIONEER ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

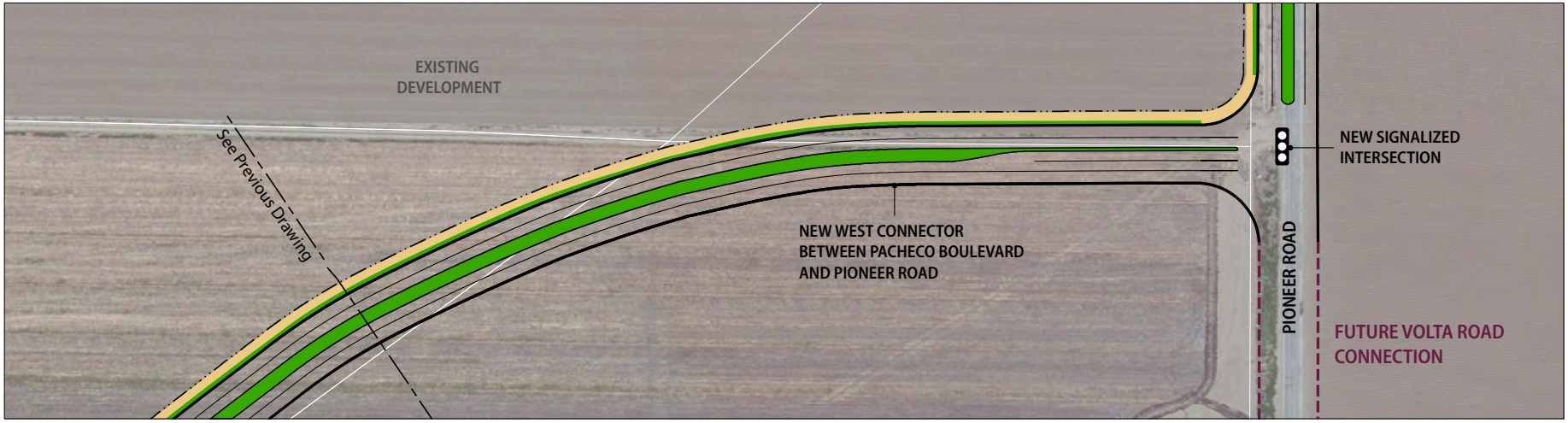


4. WEST CONNECTOR BETWEEN SR-152/PACHECO BOULEVARD AND PIONEER ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

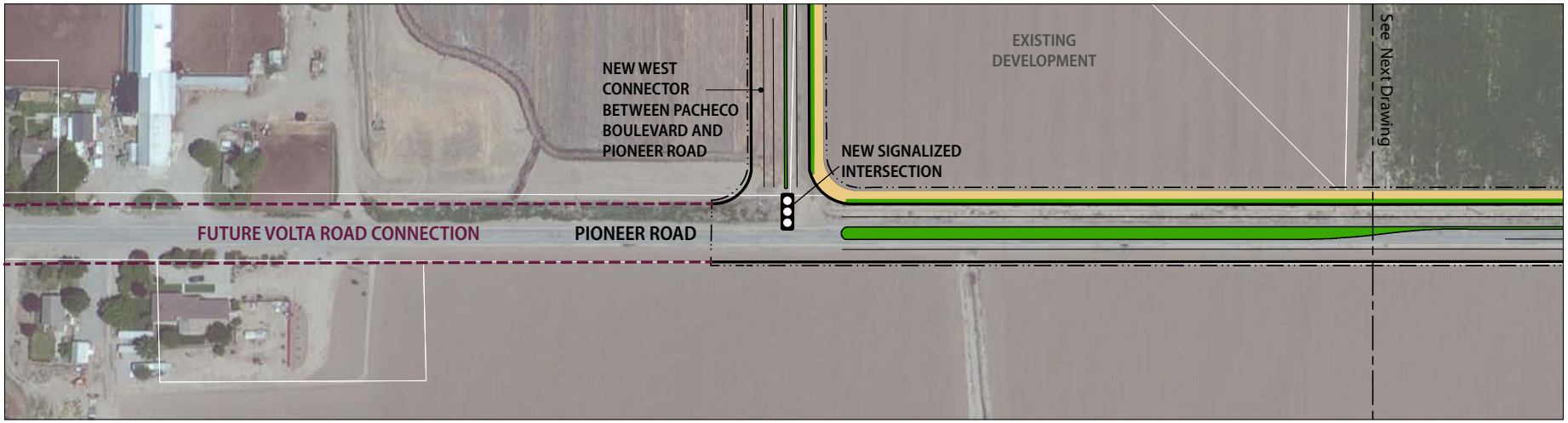


5. WEST CONNECTOR AT PIONEER ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

Note: This drawing is based on available data which is accurate to approximately 24 inches plus/minus.



6. PIONEER ROAD AT WEST CONNECTOR

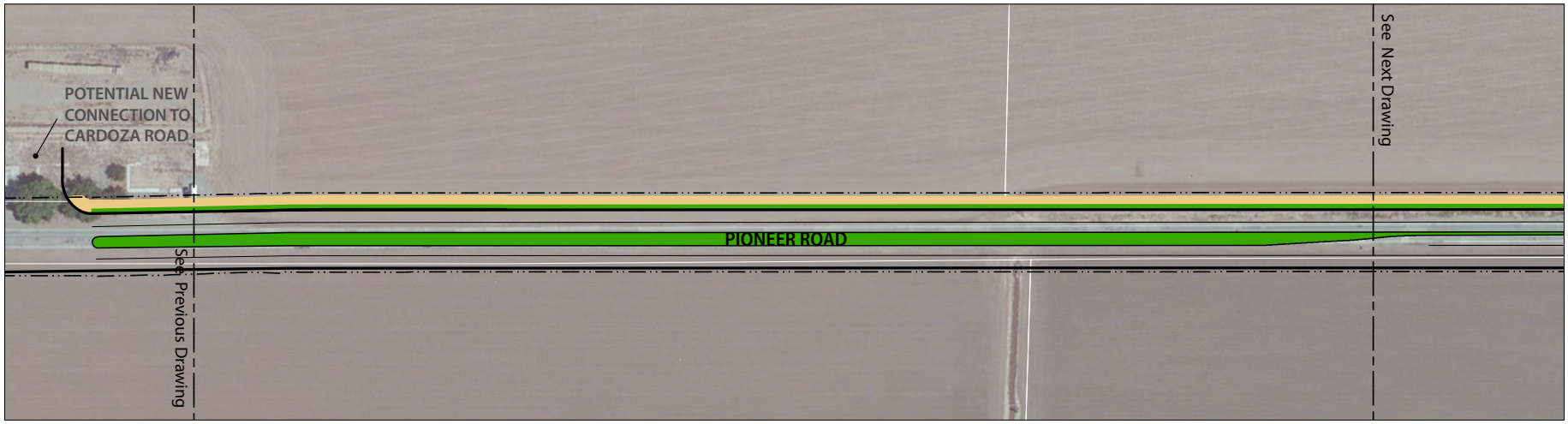
Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

7. PIONEER ROAD AT POTENTIAL NEW CONNECTION TO CARDOZA ROAD

0 100 200 400 Feet

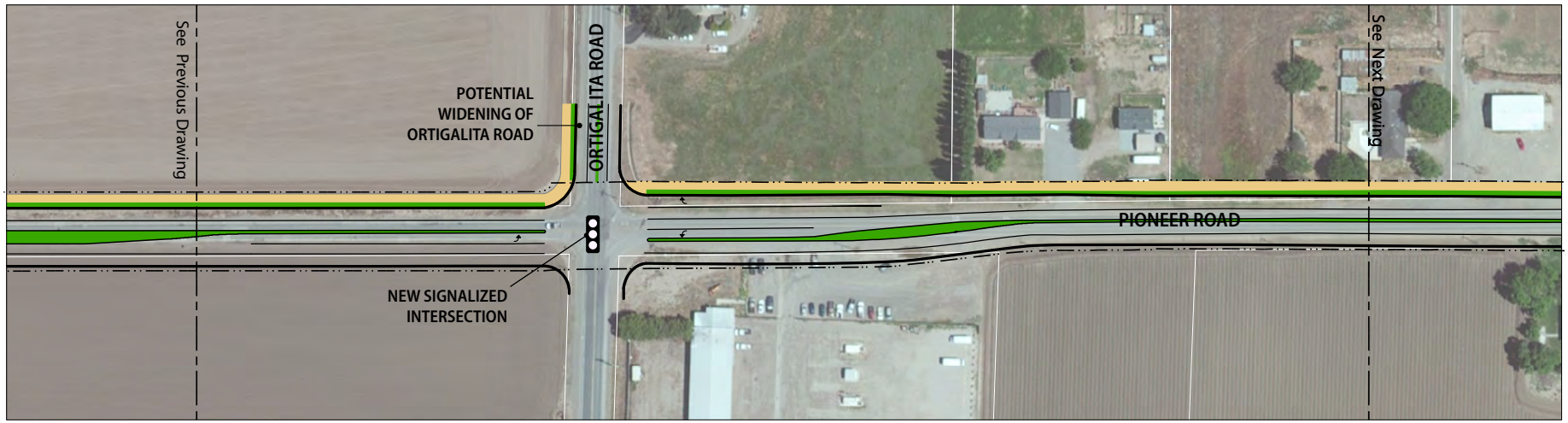
Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



8. PIONEER ROAD BETWEEN NEW CONNECTION TO CARDOZA RD. AND ORTIGALTA RD.

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path



9. PIONEER ROAD AT ORTIGALITA ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

10. PIONEER ROAD BETWEEN ORTIGALITA ROAD AND CENTER AVENUE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

11. PIONEER ROAD BETWEEN ORTIGALITA ROAD AND CENTER AVENUE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

12. PIONEER ROAD AT CENTER AVENUE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

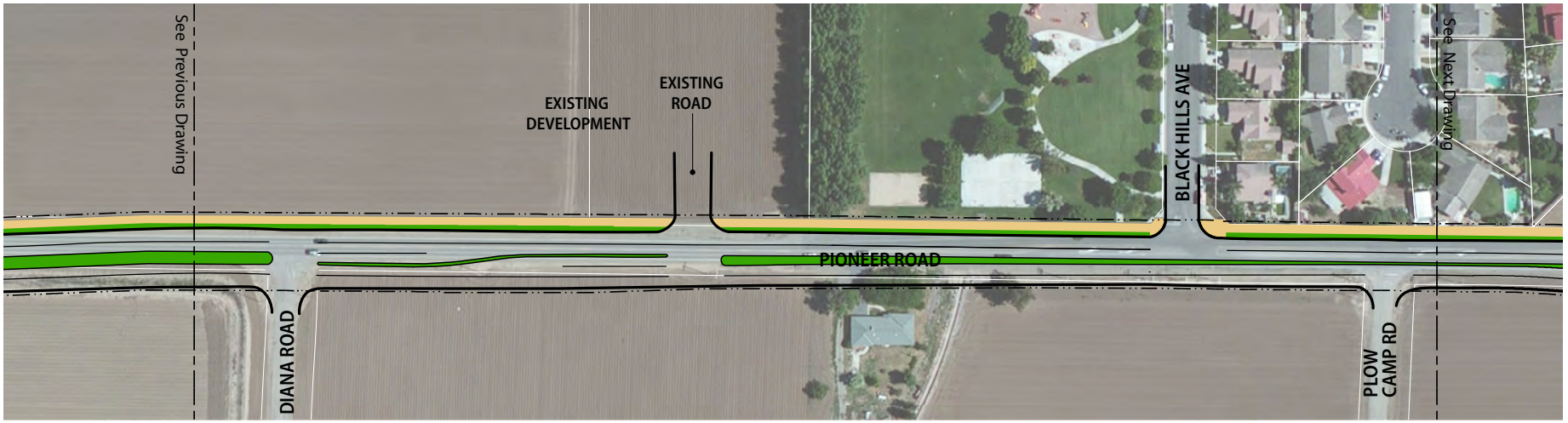
0 100 200 400 Feet

13. PIONEER ROAD BETWEEN CENTER AVENUE AND DIANA ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

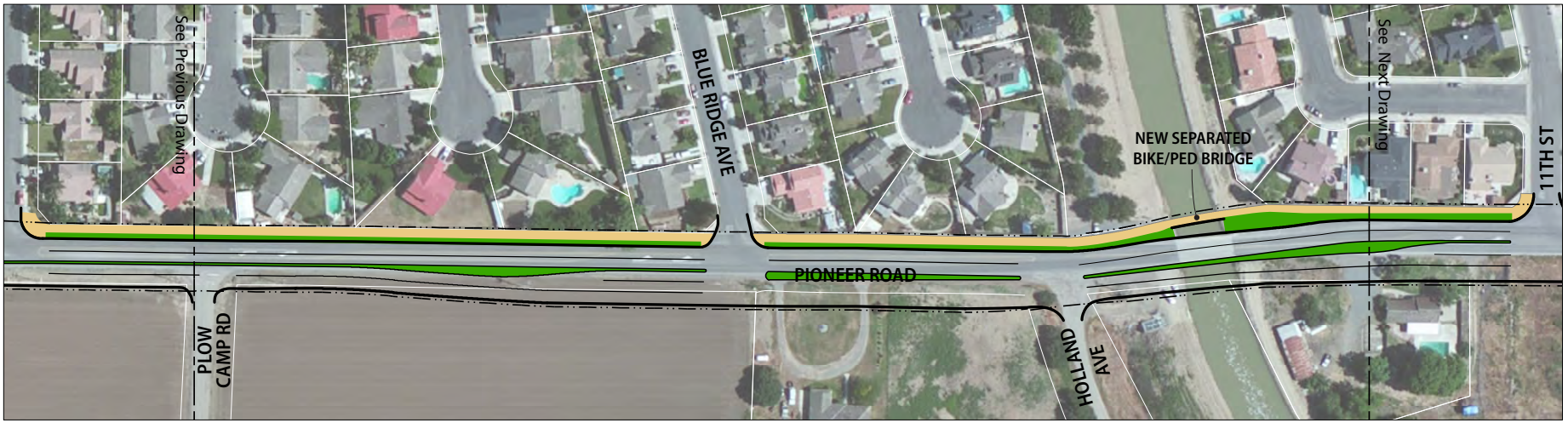
Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



14. PIONEER ROAD AT BLACK HILLS AVENUE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

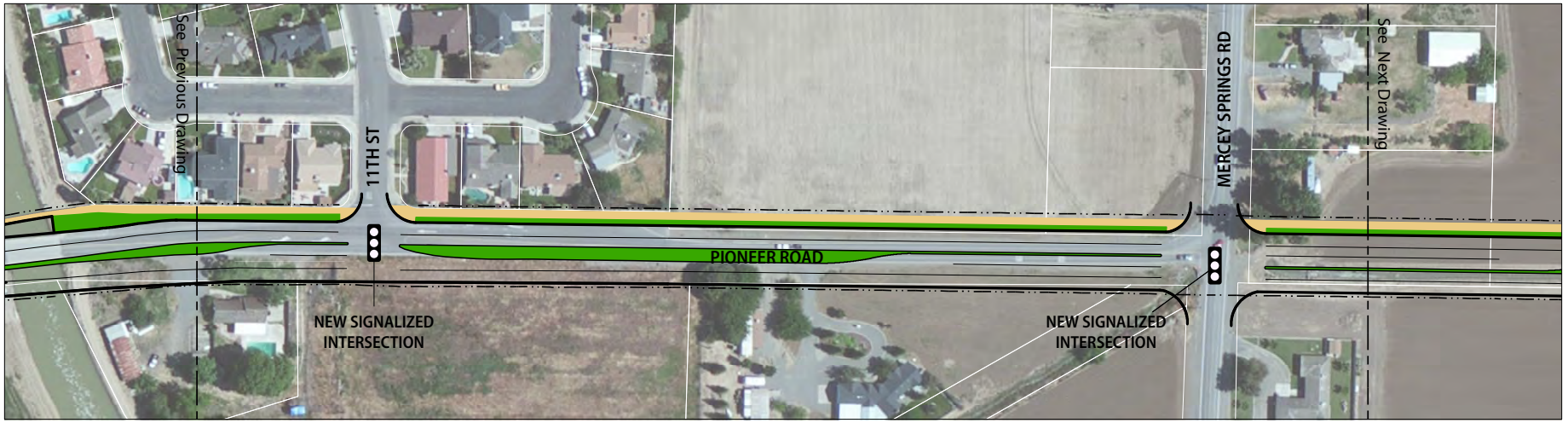


15. PIONEER ROAD AT BLUE RIDGE AVENUE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

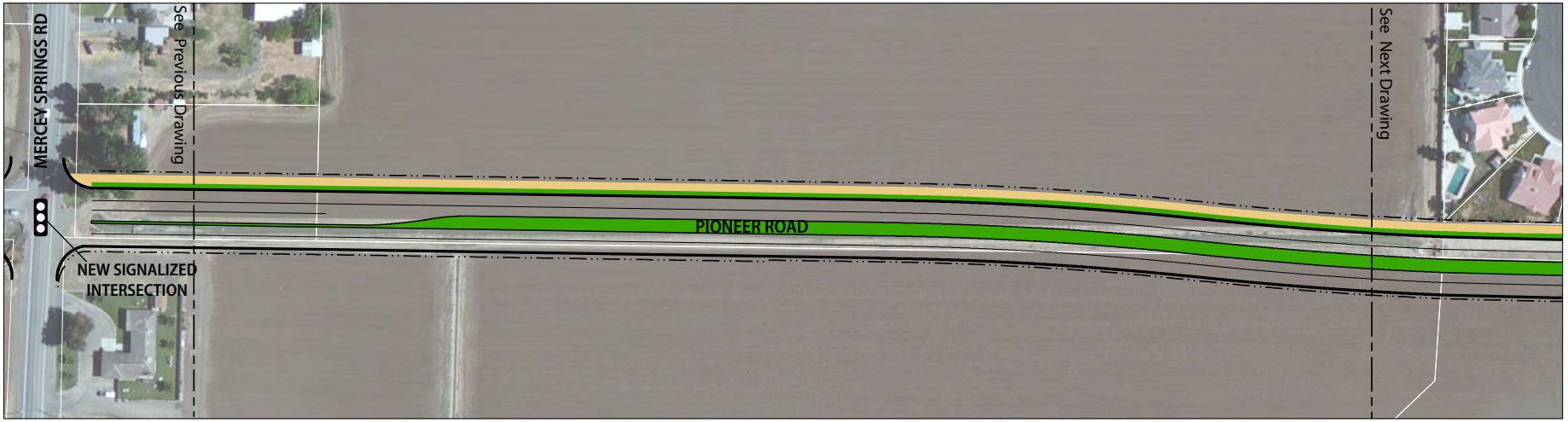
Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



16. PIONEER ROAD AT MERCEY SPRINGS ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

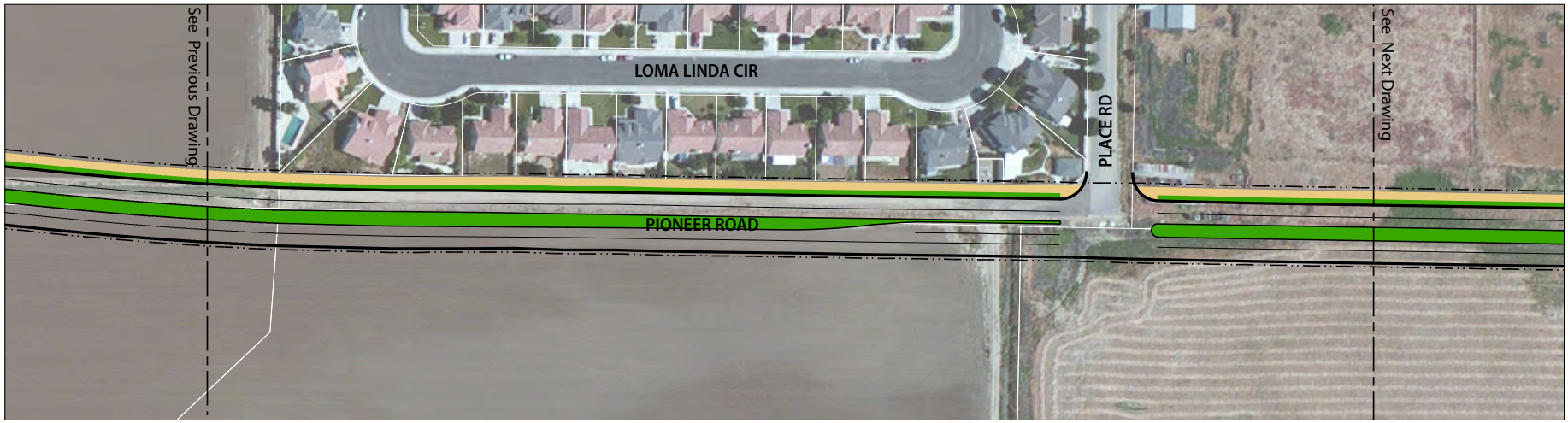


17. PIONEER ROAD EAST OF MERCEY SPRINGS ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

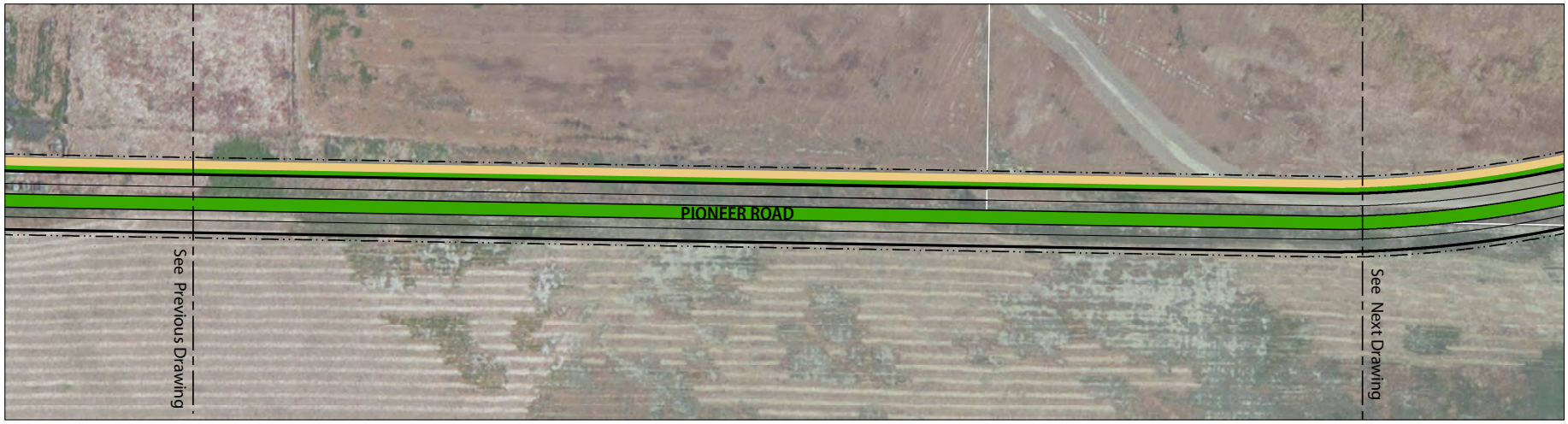
Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



18. PIONEER ROAD AT PLACE ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

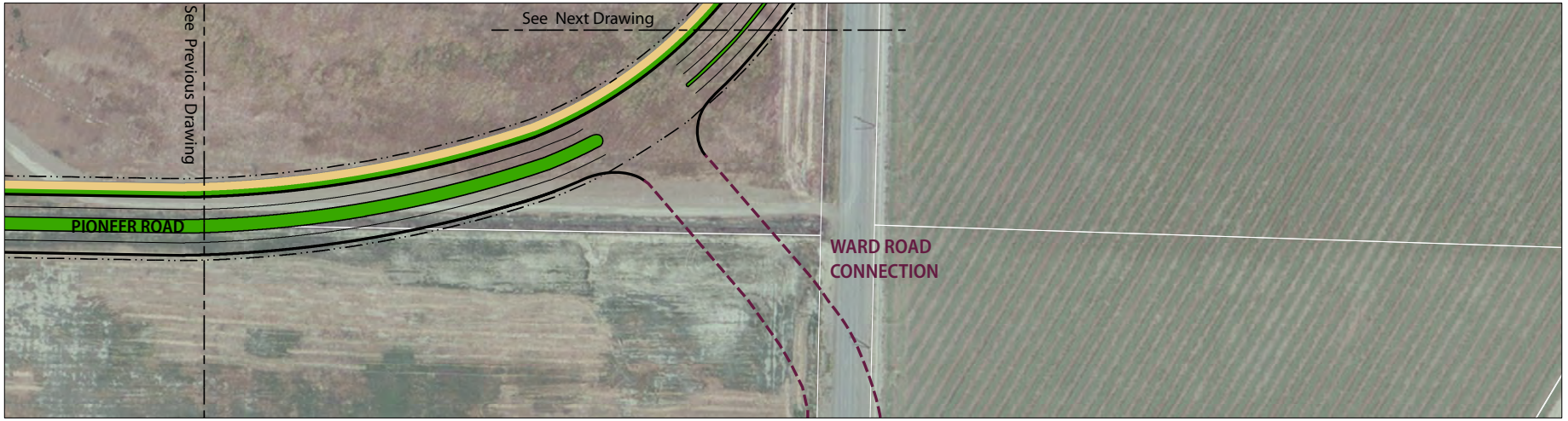


19. PIONEER ROAD BETWEEN PLACE ROAD AND WARD ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.



20. PIONEER ROAD AT WARD ROAD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

Note: This drawing is based on available data which is accurate to approximately 24 inches plus/minus.

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

Ward Road

21. WARD ROAD AT PIONEER ROAD

0 100 200 400 Feet

22. WARD ROAD BETWEEN GILBERT GONZALEZ JR. DRIVE AND PIONEER ROAD

0 100 200 400 Feet

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

23. WARD ROAD AT GILBERT GONZALEZ JR. DRIVE

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

24. WARD ROAD AT PACHECO BOULEVARD

Parcel Line | Project Right-of-Way | Curb | Travel Lane | Landscaped Median or Landscaping Along the Roadway | Bike/Pedestrian Path

0 100 200 400 Feet

Note: These drawings are based on available data which is accurate to approximately 24 inches plus/minus.

5 Implementation

This chapter includes strategies for funding and implementing the construction of the proposed infrastructure improvements along Pioneer Road. Part one of this chapter provides information on project implementation and phasing. Part two describes federal, State, regional, and local funding opportunities for which various implementation packages along Pioneer Road may be eligible, as well as the frequency of funding cycles and typical size of projects funded.

Implementation and Phasing

Project Phasing

The **near-term Phase 1** Plan Concept includes Pioneer Road widening as well as a western connection between Pacheco Boulevard and Pioneer Road primarily along an already proposed road at a development site to the east of Los Banos Creek. A widened Ward Road provides the eastern connection to Pacheco Boulevard.

The **long-term future Phase 2** Plan Concept consists of an approximately 2.5-mile extension of improvements along Pioneer Road westward to Volta Road, and improvements to Volta Road connecting Pioneer Road with SR-152. This project could be considered in future studies.

Considerations

This section describes several considerations regarding the implementation of this Plan's proposed compete streets infrastructure improvements. These considerations include right-of-way acquisition, required level of environmental documentation, and coordination with other agencies.

Right-of-Way

Procurement

This Plan's proposed improvements would require widening of Pioneer Road and Ward Road, which would necessitate right-of-way (ROW) acquisitions of some areas along the edges of agricultural parcels or rural residential parcels parallel to the roadway. The number of ROW acquisitions will be determined in future studies. Some of the larger parcels within the City boundaries are owned by two Los Banos developers: Stonefield Home and Anderson Homes, and are designated for future development. The project would also require acquisition of ROW from parcels outside the Los Banos city limit, and would need to coordinate with Merced County during the acquisition process.

It is uncertain how long the right-of-way acquisition process may take as the full extent of right-of-way conflicts and necessary acquisitions are to be determined. The City will also need to work with local developers along Pioneer Road during this process. The amount of time needed for coordination and negotiation must be factored into future steps toward project planning. ROW acquisitions are included in the preliminary cost estimate in Figure 5.1.

Construction

Additional right-of-way is required to widen Pioneer Road, Ward Road, and the West Connector as part of this Plan's proposed improvements, including:

- **Pioneer Road.** Two additional lanes, a bike/ped pathway, and landscape median, totaling a ROW of 73 feet minimum to 87 feet maximum. As described in Chapter 4, the project ROW on the south side would extend to the back face of the curb. The ROW on the north side would extend beyond the curb and planter to the back side of the bike/ped pathway, leaving one foot between the ROW at the back of the bike/ped pathway and existing or future wall. ROW is also needed at the intersections of East of Creek, Ortigalita Road, Center Avenue, Mercy Springs Road, and Ward Road.
- **Ward Road.** Two additional lanes, a bike/ped pathway, and landscape median, totaling a ROW of 73 to 87 feet.
- **West Connector.** To accommodate the full build-out per the City of Los Banos Standard Plans, a larger ROW of 100 feet is required.

During construction, temporary construction easements will also be needed to allow access to the surrounding roadside areas.

Utilities

Pacific Gas & Electric (PG&E) overhead transmission lines are currently located within the utility easement on the south side of Pioneer Road and on both sides of Ward Road (with higher voltage lines generally on the east side). Relocating these poles within the utility easement would be costly, and alternatively, additional ROW should be acquired for utility placement. This additional ROW acquisition should include accommodations for any irrigation facilities impacted by the project and temporary construction easements for utility construction and relocation.

Any existing utility facilities (e.g., electricity transmission/distribution lines, underground communications tables, tanks or pipes) that would create potential conflicts within the public ROW would need to be relocated, including from Pacific Bell, PG&E District of Merced, Comcast, Central California Irrigation District (CCID), and Chevron.

Caltrans Coordination

The California Department of Transportation (Caltrans) is responsible for maintaining and operating the State Highway System, including State Route 152 (Pacheco Boulevard) and State Highway 165 (Mercey Springs Road). Where Pioneer Road intersects these State Highways, Caltrans needs to ensure the proposed improvements provide safe access to all modes of transportation such as pedestrians, bicyclists, vehicles, buses and trucks. Prior to Pioneer Road implementation, operational analysis will need to be performed at the following intersections:

For Phase 1:

- Pioneer Road/West Connector
- Pacheco Boulevard/West Connector
- Pioneer Road/Mercey Springs Road: 4-legged intersection at widened existing alignment (west side) and new extension (east side) Pioneer Road (new extension)/Ward Road
- Pacheco Boulevard/Ward Road

For Phase 2:

- SR-152 /Volta Road
- Pioneer Road (new extension)/Volta Road

Additionally, Intersection Control Evaluation (ICE) will be required at the following locations:

- Pioneer Road/West Connector
- Pacheco Boulevard/West Connector
- Pioneer Road/Mercey Springs Road: 4-legged intersection at widened existing alignment (west side) and new extension (east side)

Currently, there is a proposed Project Initiation Document for Pioneer Road improvements (PID EA 10-1M230 Pioneer Road Extension Project). As part of this process, the Project Development Team (PDT) will refine the project's purpose and need, develop the traffic study scopes for travel forecasting and traffic operational analysis and develop SR-152/Pioneer Road connection alternatives.

Any work within the State's right-of-way will require an encroachment permit from Caltrans and must be done to Caltrans engineering and environmental standards. Caltrans does not commit at this time to funding permitting, engineering, or implementation costs of any of these proposed improvements. The conditions of approval and the requirements for the encroachment permit are issued at the sole discretion of the Permits Office.

Other Agency Coordination

In addition to Caltrans, a future project will require coordination with the following agencies (with any specific project-related documents listed below the relevant agency):

- US Army Corps of Engineers
- Department of the Army Permit:
  - Clean Water Act Section 404
  - General Permits (Nationwide Permit)
- California Department of Fish and Wildlife
  - California Fish and Game Code Section 1602
  - Lake or Streambed Alteration Agreement
- California State Lands Commission
  - California Public Resources Code Division 6 Permit
- Central Valley Flood Protection Boar
  - California Water Code Division 5, Part 4 Encroachment Permit
- Central California Irrigation District (CCID)
  - Approval for any improvements at either of the two irrigation canal crossings on Pioneer Road (Los Banos Creek and the CCID Main Canal)
- Non-public Utility owners (e.g., communication and energy infrastructure) in the project area for:
  - Consultation and potentially ROW acquisition with regard to any alterations made where utility infrastructure is located in the Project Area (e.g., electricity transmission/distribution lines, underground communications tables, tanks or pipes)
- Grassland Water District
- Merced County Department of Public Works
- Merced County Farm Bureau
- Merced County Association of Governments

Environmental Considerations

Adequate environmental documentation in compliance with California environmental law, particularly the California Environmental Quality Act (CEQA), is a crucial step in implementing improvements proposed in this Plan. The City of Los Banos with other consultants have completed a Mini-Preliminary Environmental Analysis Report (Mini-PEAR) that has identified potential environmental issues, constraints, costs, and resource needs of the project. In terms of compliance with CEQA, it is anticipated that avoidance, minimization, and mitigation measures may be taken to reduce any impacts to less-than-significant levels, and that an Initial Study/Mitigated Negative Declaration (IS/MND)/Finding of No Significant Impact (FONSI) will be the appropriate level of environmental documentation necessary under CEQA. Potential impacts of any improvements will need to be evaluated through technical reports required by California law, the results of which will determine the level of CEQA review needed. The following is a list of potential environmental impacts to be evaluated in these technical reports to determine whether a full Environmental Impact Report (EIR) is necessary:

- Air Quality impacts resulting from increased vehicle traffic along Pioneer Road.
- Potential impacts to protected plant or animal species and habitat along Pioneer Road.
- Community impacts or impacts to adjacent farmland resulting from right-of-way acquisition required for project improvements.
- Potential impacts to historic properties or properties of cultural significance.
- Potential impacts to low-income communities and communities of color (although these populations were not found to be in significant concentrations in the Project Area).
- Geologic hazards, like soils that are susceptible to liquefaction in the event of an earthquake.
- Hazardous underground materials.
- Hydrology and water quality impacts resulting from construction of project improvements and increased traffic along Pioneer Road, particularly where Los Banos Creek and the CCID Main Canal intersect the Project Area.
- Noise impacts to surrounding properties resulting from construction and increased traffic along Pioneer Road.
- Potential disturbances to paleontological resources.

If, during preparation of these technical studies, potentially significant impacts that cannot be mitigated to below a level of significance are identified, such as significant amounts of induced vehicle miles traveled (VMT) created by the project, then preparation of an Environmental Impact Report (EIR) would be required. In this case, the City of Los Banos would be the CEQA Lead Agency, and Caltrans would be a CEQA Responsible Agency for project encroachments into and effects to the State highway.

In terms of federal environmental law, specifically the National Environmental Protection Act (NEPA), it is expected that a "Routine" Environmental Assessment to support a Finding of No Significant Impact (EA/FONSI) would be the appropriate level of environmental documentation. Caltrans would be the federal Lead Agency for NEPA. Documentation of project approval would be in the form of either a Project Report or a PEER for project elements within the State right-of-way. The type or environmental document and complexity of the improvements would be determined during the environmental studies and permitting phase (PA-ED) that would help determine the project approval document.

Next Steps for the Planning Process

Key next steps include:

- **Advance portions of the project where funding has already been received.** This includes the completion of a joint Project Study Report Project-Development Support document that was begun in the fall of 2020.
- **Conduct further environmental review** as described above.
- **Initiate negotiations** with property owners regarding acquisition of portions of properties as described above.

Recommended Steps to Implement Improvements

Below are strategies the City of Los Banos may consider pursuing funding for the construction of implementation packages recommended in the Pioneer Road Complete Streets Plan.

- **Secure local funds before pursuing funding for higher-cost infrastructure improvements.** In most instances, it would benefit the City to secure funds locally where possible, whether that be through developer mitigation or miscellaneous impact fees, committing Measure V local or regional funds, or dedicating a portion of CIP funding before pursuing competitive grant funds for larger-scale infrastructure projects. Prioritizing local funding sources enables the City of Los Banos to provide a local match for grants that require it and demonstrates to grant agencies that the City is committed to advance the projects for which it is requesting funding.
- **Acquire any required right-of-way for the project prior to project construction**. While some funding sources do allow funds to purchase rights-of-way, most competitive and formula grants prefer that the jurisdiction resolve these issues prior to obtaining funds for project construction. This also includes obtaining any permits and easements in cases where roadway improvements interact with waterways and utility easements.

Cost Estimate

Table 5.1 shows a preliminary cost estimate for construction of the Plan Concept, including roadway improvements and new bridges structures. Engineering and permitting costs are anticipated to be funded separately. Note that right-of-way acquisition costs will be determined in further project studies.

Table 5.1 Plan Concept Preliminary Cost Estimate

Description	Cost
Earthwork	$6,209,000
Structural Section	$11,962,000
Drainage	$4,501,000
Specialty Items	$21,598,000
Traffic Items	$5,251,000
Minor Items	$4,502,000
Roadway Mobilization	$4,953,000
Roadway Additions	$17,333,000
Structures (vehicular bridge and pedestrian bridge)	$1,080,000
Total Anticipated Construction Cost	**$55,240,000 - $74,350,000**

Source: Pioneer Preliminary Project Cost Estimate Summary, Mark Thomas Co.7/30/2020. Figures include 25% Contingency. Ranges reflect spectrum of potential Contractors' bidding costs.

Funding

This section includes a detailed description of federal, State, regional, and local funding opportunities for which various implementation packages along Pioneer Road may be eligible, as well as of the frequency of funding cycles and typical size of funded projects. This section also provides an outline detailing typical requirements that agencies must meet as part of applying for grant funding based on specific grant programs.

Potential Funding Sources

Measure V

In November 2016, Merced County voters passed Measure V, which adopted a half-cent sales tax that will remain in place for 30 years. Measure V is expected to generate $15 million each year to fund transportation projects. The voter-approved expenditure plan for Measure V allows for improvements along Pioneer Road. The following describes how Measure V funds are distributed between 'Regional Projects' and 'Local Projects.'

- **Regional projects** west of the San Joaquin River (constituting 17 percent of Measure V funds) are defined as projects that benefit more than one jurisdiction or the County as a whole. Examples include improvements to State highways or regional roads, passenger rail projects, or regional trails. Regional projects must be listed in the RTP. Over the next 30 years, Measure V is expected to provide $77 million dollars of transportation funding for west-side regional projects.
- **Local projects** (constituting 50 percent of Measure V funds) are to be used for projects identified and prioritized by local jurisdictions and communities in Merced County. Projects could include pothole repair, road rehabilitation, sidewalks, and Safe Routes to School improvements. At least 20 percent of the funds the jurisdiction receives must be used for projects that support alternatives to driving alone: new bike lanes, sidewalk improvements, crosswalks, ridesharing programs, or improvements to mobility for people with disabilities. Each City and the County will receive a percentage of funds based on a formula combining population and roadway miles. Over the 30-year life of the sales tax, Measure V local funding is projected to provide the City of Los Banos with over $23 million dollars in transportation improvements. The Los Banos City Council will authorize use of Local Project funds within Los Banos.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) is a federal initiative that supports a range of projects aimed at reducing transportation-related air emissions in air quality nonattainment areas, which includes the City of Los Banos and Merced County. To achieve this goal, the CMAQ program authorizes approximately $2.5 billion per year in available grant funding nationwide. CMAQ funds are allocated to regional/county transportation commissions based on population. The City of Los Banos coordinates with MCAG for receipt of CMAQ funds.

Environmental Enhancement and Mitigation (EEM) Grant Program

This program is a State fund established by the Legislature and managed by the California Natural Resources Agency. EEM Grants fund beautification improvements to roadsides that mitigate the negative impacts of transportation projects. The program offers funding to local, State, and federal governmental agencies and to nonprofit organizations for mitigating environmental impacts caused by additions or modifications to public transportation facilities. Grant cycles are released annually, with approximately $7 million dollars in available funding in an average funding cycle and the average project awarded $467,000. The upcoming cycle was planned for release in early 2020 but has been delayed to January 2021 due to the impacts of COVID-19. Past cycles have allowed grant application submittals of up $1 million dollars for projects that required acquisition of properties. A 25 percent local match is required for all application submissions.

SB 1

SB1, also known as the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017, allocating $5 billion annually and up to $54 billion statewide by 2027 to fix freeways, roads, and bridges and to improve transit, pedestrian safety, and bicycle safety. Half of the money goes to local investments. Revenue comes from gas taxes, diesel tax increases, a new vehicle registration fee, and one-time loan repayments. SB 1 revenue allocations are divided into various formula-based and competitive programs available for State and local use. Eligible projects include transportation planning efforts, freight rail projects, transit improvements, and congestion relief, among others. SB 1 could generate as much as $11 million for Los Banos between 2017 and 2027 Specific sources of funding from SB 1, for which proposed projects along Pioneer Road would be eligible, are described further below.

Caltrans Active Transportation Program (ATP)

The California Active Transportation Program was created in 2013 with the goal of consolidating existing federal and State transportation programs, including the Transportation Alternatives Program (TAP), the Bicycle Transportation Account (BTA), as well as federal and State Safe Routes to School programs (SRTS). In 2017, an additional infusion of funding was committed to the program through SB1 funding sources, adding approximately $100 million per every ATP grant cycle. The ATP provides a key source of funding for cities, counties, and regional transportation agencies for bike lanes, pedestrian paths, multi-use paths, sidewalks, Safe Routes to School improvements, and other projects that help reduce reliance on cars. The Caltrans ATP Cycle 5 Call for Projects was released in May 2020, with $440 million in grant funding available for bicycle, pedestrian, and multi-modal trail projects, with applications due on September 15, 2020. The ATP has grant cycles that occur every other year. The next grant cycle is anticipated for Spring 2022. Based on past grant cycles, the average award for projects in the ATP program is just under $2 million. However, it is not uncommon for the ATP program to award $10 million dollars of funding for individual projects. Projects that are within or that directly connect to Disadvantaged Communities (as defined by CalEnviroScreen 3.0) are prioritized to receive funding, which applies to all projects discussed in the Pioneer Road Complete Streets Plan. It is expected in the next grant cycle that Caltrans will require agencies to have an adopted Active Transportation Plan or similar document prior to pursuing ATP funds.

Local Partnership Program (LPP)

The LPP supplements voter-approved transportation tax investments made by local communities by providing matching funds. The California Transportation Commission (CTC) intends for this program to balance the priority of directing increased revenues to areas of the state with the highest level of transportation need while maintaining fair distribution of grant funds statewide. Eligible projects include road maintenance, road rehabilitation and other transportation infrastructure improvements. The CTC distributes roughly $200 million in funding, split evenly between competitive and formula grants. Formulaic funding is distributed annually by Merced County Transportation Authority and statewide competitive grant cycles are issued every two years by Caltrans. The next grant cycle for the LPP is expected to occur in 2022.

Local Streets and Roads Program (LSRP)

SB 1 dedicates approximately $1.5 billion per year in new formula revenues to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system. Each year, cities and counties must submit a list of proposed projects to the California Transportation Commission (CTC) by May 1st, after which the CTC adopts a list of eligible projects for LSRP funds by August 1st. LSRP-funded projects require an expenditure report to be submitted to the CTC by October 1st annually for any LSRP-funded project. This report includes a project description, location, amount of funds expended, and estimated useful life of improvements constructed with program funding. LSRP funding is available for road maintenance and rehabilitation, safety projects, projects

that promote active transportation, pedestrian and bicycle safety projects, transit improvements in conjunction with any other allowable project, and installation of traffic control infrastructure. During the first year of the LSRP program, 537 cities and counties received a share of roughly $386 million distributed by formula, resulting in an average of around $700,000 awarded to each jurisdiction.

California Natural Resources Agency Urban Greening Grant Program

The Urban Greening Program is intended to fund projects that reduce greenhouse gases by sequestering carbon, decreasing energy consumption and reducing vehicle miles traveled, while also transforming the built environment into places that are more sustainable, enjoyable, and effective in creating healthy and vibrant communities. Examples of eligible urban greening projects include green streets, alleyways, and non-motorized urban trails that provide safe routes for travel between residences, workplaces, commercial centers, and schools. While the California Natural Resources Agency's Urban Greening grant cycles are irregular and dependent on securing a funding source, in recent years the grant has been offered on an annual basis. The most recent grant cycle offered $28.5 million in funding, with applications due on July 15, 2020 and with no maximum limit on funds awarded to an individual project. In previous cycles, total funding offered in the grant program has ranged between $25 million and $80 million, with an average grant award of $2 million dollars for an individual project. Like the Caltrans Active Transportation Program, the Urban Greening Grant Program prioritizes Disadvantaged Communities to receive grant funds.

State Transportation Improvement Program (STIP)

The STIP is a multi-year capital improvement program for transportation projects on and off the State Highway System. STIP is funded by revenues from the Transportation Investment Fund and other federal sources. The City of Los Banos should work with MCAG to nominate projects for inclusion in the STIP. MCAG-recommended transportation projects may be programmed into its Regional Transportation Improvement Plans (RTIP) as these projects are then eligible for either State Highway Account or Federal funds. The recently adopted 2020 STIP includes over $2.5 billion in new funding over the next 5 years.

Highway Safety Improvement Program (HSIP)

This program helps fund projects that reduce fatalities and serious injuries on all public roads, with a focus on funding safety improvements along state-designated highways. The program is data-driven and requires records such as crash experience (data that has already been collected to identify intersections with potential for improved safety), crash potential (further refined data to identify locations with high-risk roadway characteristics), and crash rates. A portion of HSIP funds is set aside for distribution to local government agencies through a competitive application process. Caltrans typically issues a call for projects on a biennial basis. Approved projects are submitted to the applicant's respective Metropolitan Planning Organization (MPO) for inclusion in the FTIP, and which funds are dispersed accordingly. The minimum funding amount is $100,000. The average amount awarded to projects in recent grant cycles was approximately $900,000. The current HSIP grant cycle has $220 million available in funding, with applications due in November 2020. It is anticipated that the next grant cycle will be released in Spring 2022. Caltrans has announced that the next HSIP grant cycle will require agencies to conduct a Local Road Safety Plan prior to pursuing HSIP funds.

Highway Infrastructure Program (HIP)

HIP was created in 2010 as part of the Consolidated Appropriations Act, with the intent to fund the restoration, repair, and construction of federal aid eligible roads, bridges, and tunnels. The Consolidated Appropriations Act of 2018 once again secured funding for HIP, and the 2019 Consolidated Appropriations Act added additional funding to HIP, as well as expanded the types of eligible projects to include those that eliminate hazards and install protective devices at railway-highway crossings. HIP funding is distributed by the Federal Highway Administration and further divided by state governments in coordination with relevant Metropolitan Planning Organizations (MPOs) and/or rural planning organizations as required by the FAST Act. Funding cycles occur annually, with a total of $72,911,326 distributed during the 2019-2020 fiscal year.

Surface Transportation Block Grant – Transportation Alternatives (STBG-TA)

In 2015, President Obama signed into law the Fixing America's Surface Transportation Act (FAST Act). The FAST Act replaces the previous two-year transportation authorization bill, Moving Ahead for Progress in the 21st Century (MAP-21), and provides long-term funding certainty for surface transportation. The FAST Act includes a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA), which were previously a part of MAP-21's Transportation Alternatives Program (TAP). The STBG program provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel; projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. TA funding is allocated to States based on population and is further distributed by Caltrans through the competitive Active Transportation Program (ATP). For additional information, see Active Transportation Program (ATP) in the "SB1" section of this chapter.

City of Los Banos Capital Improvement Program (CIP)

Projects selected for funding through the CIP program are lower cost projects that are relatively easy to implement (e.g., striping improvements, signage, and sharrow treatments).

Developer Fees/Mitigations

Projects located in areas where new development is likely to occur along Pioneer Road, or redevelopment of existing buildings may be fully or partially funded by developer contributions through a condition of approval. Funds collected in this manner are not likely to cover the entire cost of a segment improvement and will need additional funding from other sources in this list.

Developing Successful Grant Applications

While funding agencies frequently update grant guidelines, requirements, and individual applications for each funding program's cycle, there are several items that are commonly required in competitive grant applications for pedestrian, bicycle, and multi-use trail infrastructure. Listed below are key items to accomplish prior to submitting a typical transportation infrastructure grant application. Note that descriptions are based on Caltrans ATP, Caltrans HSIP, and Urban Greening grant applications in prior funding cycles for reference, and grant application requirements for sources listed in this Plan are subject to change.

- **Resolution from Agency Supporting Project.** A resolution is required for the Urban Greening Grant application, but not required for Caltrans ATP or HSIP applications.
- **Disadvantaged Community Analysis.** Typically, funding agencies prioritize or require funds to be distributed to areas that are considered socioeconomically or environmentally disadvantaged. The most common formulas used include the top 25 percent of CalEnviroScreen 3.0 Census Tracts, Median Incomes that are lower than 80 percent of the statewide average, or if 75 percent of students in project area qualify for free/re-

duced lunches. According to the CalEnviroScreen 3.0 SB 535 Disadvantaged Communities website[1], the entire south side of the Pioneer Road Complete Streets Study Area is considered "disadvantaged" in addition to the area bounded by Mercey Springs Road to the west, Ward Road to the east, Pacheco Boulevard to the north and what would be the extension of Pioneer Road from Mercey Springs Boulevard to Ward Road on the south (currently a drainage way). Assessment of disadvantaged communities are required for Caltrans ATP and Urban Greening Grant applications, but not required for Caltrans HSIP applications.

- **Cost-Benefit Analysis.** This analysis is required for all Urban Greening Grant applications and HSIP grant applications as well as Caltrans ATP grant applications requesting over $7 million dollars in funding.
- **Statement of Project Need.** This statement is required on most competitive grant applications. Most statements of project need require a short project title (less than 200 characters), followed by an executive-level project description (200 words or less), and a longer statement of need (500-1,000 words).
- **Cost Estimate.** A preliminary estimate is required for most infrastructure project applications, with costs often separated into preliminary engineering with Project Approval for Project Report and environmental document (PA&ED); final design with plan, specification, and estimate (PS&E) and right-of-way acquisition; and construction (CON). Caltrans ATP applications require that such estimates be prepared by a registered engineer licensed in the State of California.
- **Collision Statistics in Project Area.** Required on Caltrans ATP and HSIP applications, not required for Urban Greening Grant applications.
- **Bicycle and Pedestrian Counts in Project Area.** Required on Caltrans ATP applications, not required for Urban Greening Grant applications.
- **Community Outreach.** Documentation of outreach may include a brief written description of outreach conducted, sign-in sheets, images of events, and promotional materials of events. Documentation of outreach is recommended for most competitive grant applications and is required on Caltrans ATP and Urban Greening Grant applications but optional for the HSIP application.
- **Letters of Support.** Recommended for most competitive grant applications and required on the Caltrans ATP and Urban Greening Grant applications, optional for the HSIP application.
- **Infrastructure grants typically fund the following items:**
  - **Preliminary Engineering / Final Design / Pre-Construction.** Includes environmental studies and permits (PA-ED), as well as preparation of plans, specifications, and estimates (PS&E). In the Urban Greening Grant, they require that no more than 25 percent of total project costs go to pre-construction. While the ATP and HSIP grants have no set guidelines, it is generally assumed that pre-construction costs should stay within 25 percent of total project costs from those funding sources as well.
  - **Right-of-Way.** Includes engineering, appraisal, and acquisition.
    - » For the HSIP grant, right-of-way costs are required to stay within 10 percent of total construction costs.
    - » For the Urban Greening Grant, staff costs associated with right-of-way tasks can be no more than $10,000 of the total project budget.
  - **Construction.** Includes construction engineering and construction of the project.

1 https://oehha.ca.gov/calenviroscreen/sb535

PLACEWORKS