

PIONEER ROAD COMPLETE STREETS PLAN

Existing Conditions and Background Document Review

January 2019

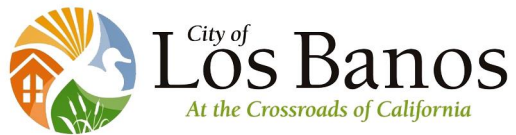


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I. Introduction

This Existing Conditions Report is the first step in the process of developing the Pioneer Road Complete Streets Plan. The Plan will be a community-based plan to provide recommendations for improving Pioneer Road into a valuable local asset, including the study of potential extensions of the roadway and improved connections between Pioneer Road and Pacheco Boulevard. All modes of transportation will be considered: vehicles, trucks, transit, bicycles and pedestrians. Aesthetic and wayfinding improvements will also be considered during the planning process.

This report summarizes existing physical features, regulations, demographics, infrastructure, and traffic of the study area, which includes the Los Banos Pioneer Road corridor in addition to two areas running north-south connecting Pioneer Road to Pacheco Boulevard at the west and east ends of the Study Area. This background document will serve as a resource throughout the development of the Complete Streets Plan.



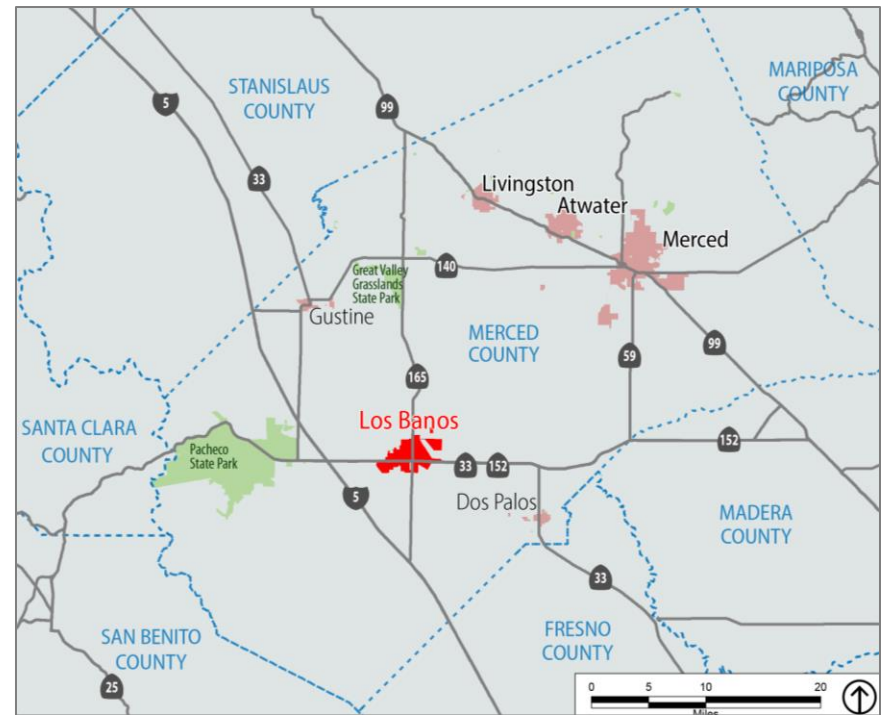
II. Study Area Review

CITY AND REGIONAL CONTEXT

Los Banos is located in Merced County, which is a mostly rural county located in the northern San Joaquin Valley region of California's larger Central Valley (Figure 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 transitions into the Monterey Bay coastline. Merced's county seat, the City of Merced, is a city of about 83,000 people, and contains the newest University of California Campus, UC Merced, with approximately 6,815 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 1. Regional Context



STUDY 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.

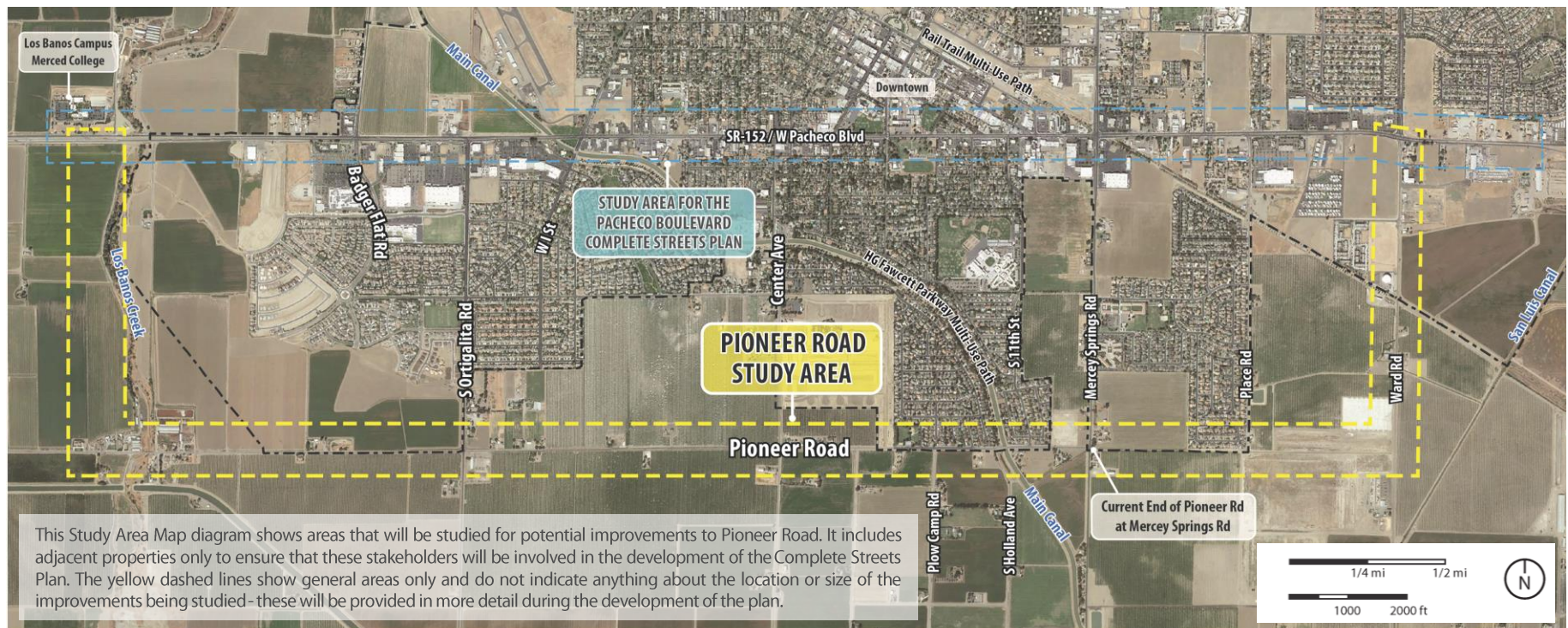
As shown in Figure 2, the study area for the Pioneer Road Complete Streets Plan has four primary components (listed from west to east):

1. A north-south stretch of farmland connecting Pioneer Road to Merced College Los Banos Campus at SR-152/Pacheco Boulevard, to be studied for a potential connecting road between Pioneer Road and SR-152/Pacheco Boulevard

2. 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
3. A potential Pioneer Road extension from Mercey Springs Road to Ward Road
4. Ward Road northward from Pioneer Road until intersecting with SR-152/Pacheco Boulevard at the eastern end of Los Banos City Limits.

Some parts of the Study 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.

Figure 2. Study Area Boundaries



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” (figure Cir-1), with one lane in each direction. The full 7-mile length of Pioneer Road begins on the west side at the intersection with Billy Wright Road in unincorporated Merced County, near California Interstate 5. At the east end, Pioneer Road terminates in a T-intersection with SR-165/Merced Springs Road. The segment of Pioneer Road within the Study Area is bounded on the west side where the road lies directly south of the Merced College Los Banos Campus, and on the east side where Pioneer Road intersects SR-165/Merced Springs Road.

The Infrastructure Analysis section of this report describes transportation characteristics of Pioneer Road in more depth.

PUBLIC TRANSIT

The Merced County Association of Governments (MCAG) manages “The Bus,” which is the single public transportation service provider for all Merced County, including Los Banos.

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 para-transit 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 Study 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 Study Area served by fixed-route transit is the northwestern Study Area boundary abutting Merced Community College.

There are no transit stops directly within the northeastern boundary of the Study 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 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.

Figure 3. Los Banos Dial-A-Ride Service Area

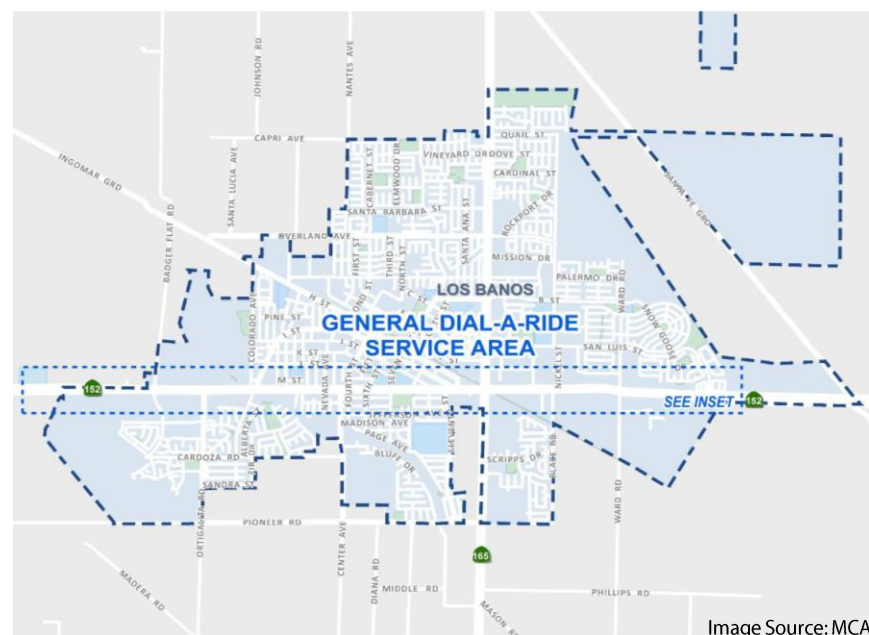


Image Source: MCAG

LAND USE AND DEVELOPMENT IN THE STUDY AREA

As mentioned in the Study Area Description above, most land in the Pioneer Road Study 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

Properties in the Study Area include agricultural lands, commercial operations, single residences, and subdivisions with single-family residences that are part of 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. Refer to the aerial photographs on the following pages to get a sense of existing development.

Although most of the land within City limits in the Study 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 Study Area between Ortigalita Road and Los Banos Creek are within City Limits but are currently used for agriculture. The east end of the Study 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 Study 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 Study Area lies within two jurisdictions: within Los Banos City Limits; or in Merced County within the Los Banos Sphere of Influence. 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.

In the Study Area the County's land use designations are generally for agricultural uses, while the City General Plan designations are for residential, civic/institutional, park or commercial land uses. Figure 4 on the following page shows the future land use designations according to the City's General Plan 2030. 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 Study Area.



Figure 4. General Plan Land Use Designations – Local Context

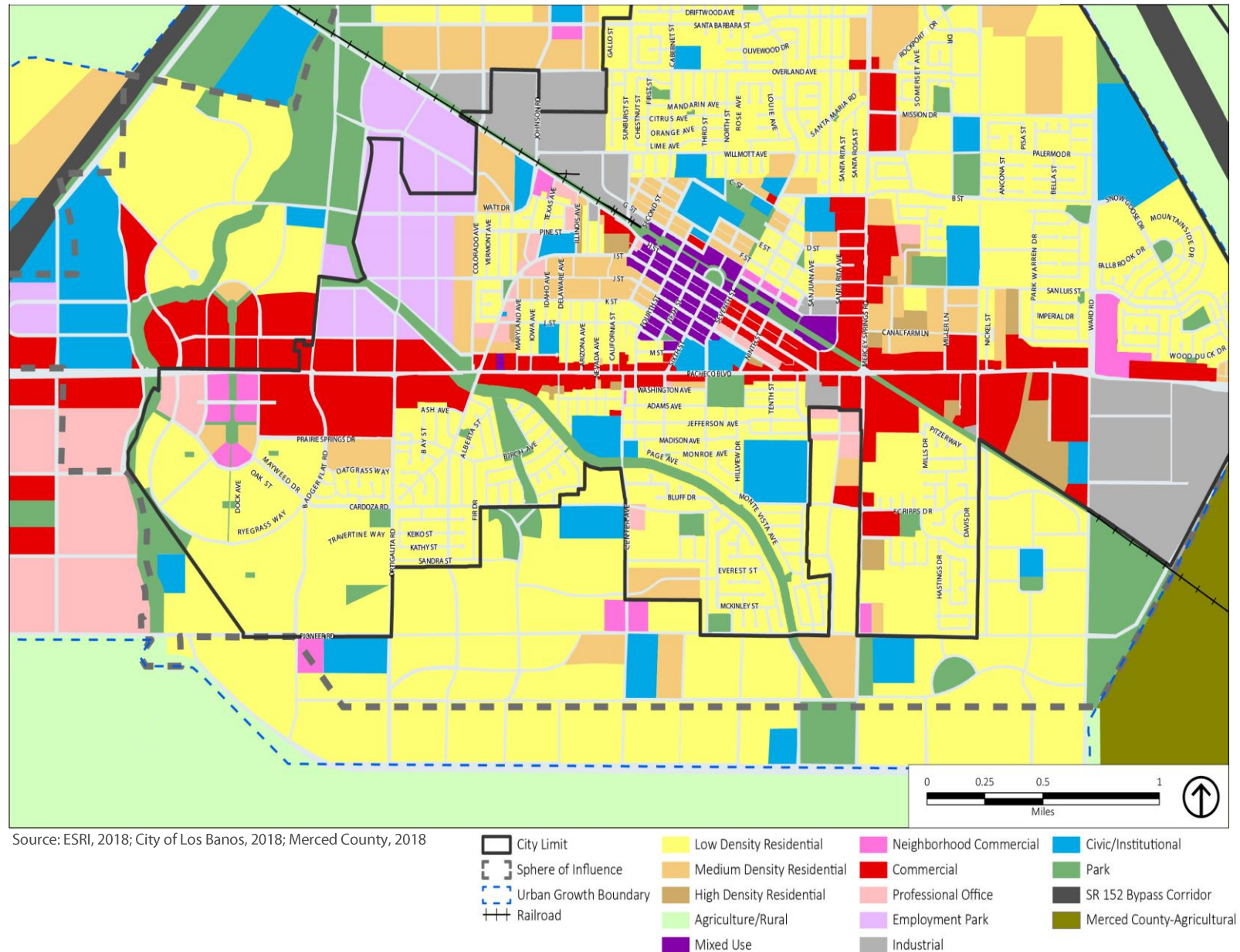


Figure 5. Existing Land Use – Segment 1

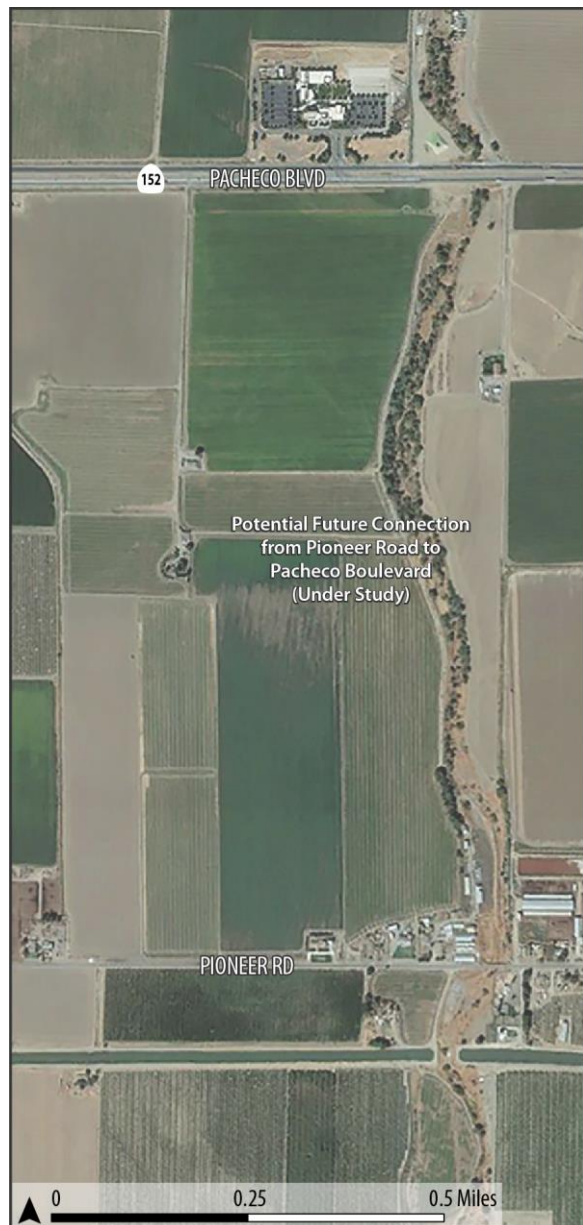


Figure 6. General Plan Land Use Designations – Segment 1

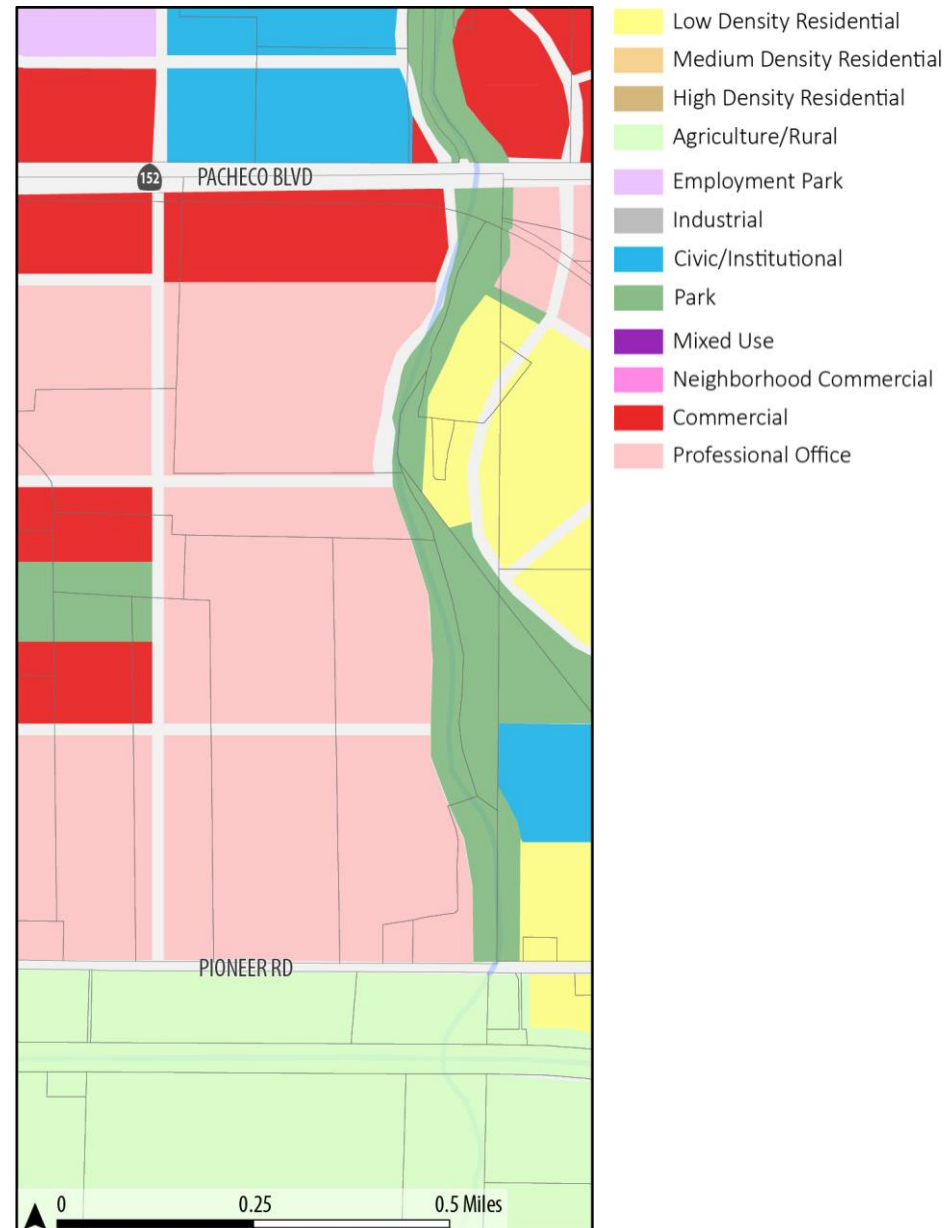


Figure 7. Existing Land Use – Segment 2



Figure 8. General Plan Land Use Designations – Segment 2

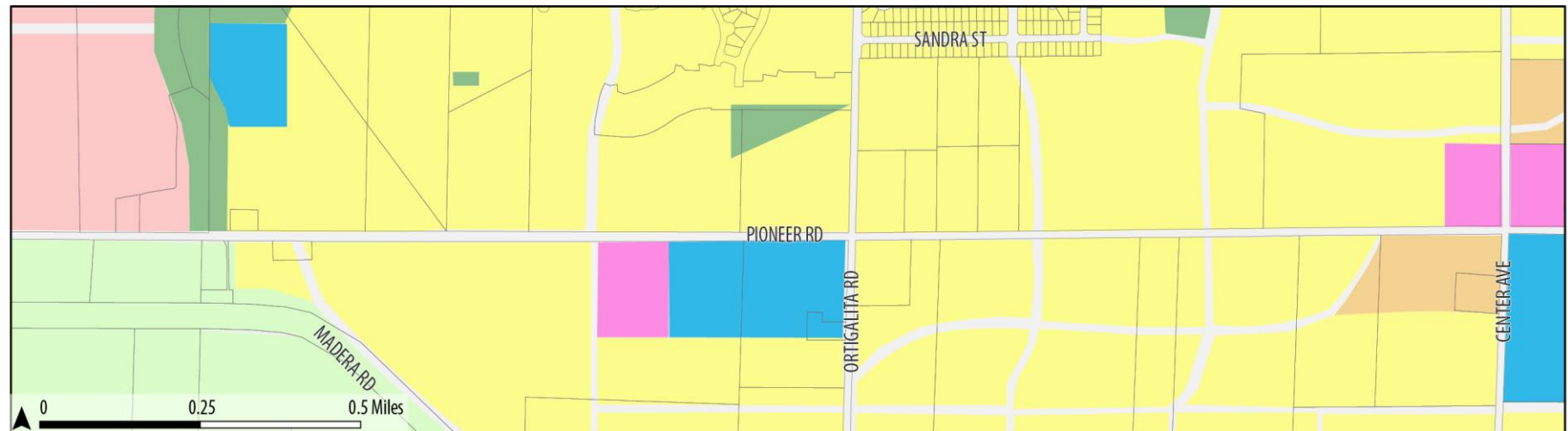


Figure 9. Existing Land Uses – Segment 3



Figure 10. General Plan Land Use Designations – Segment 3

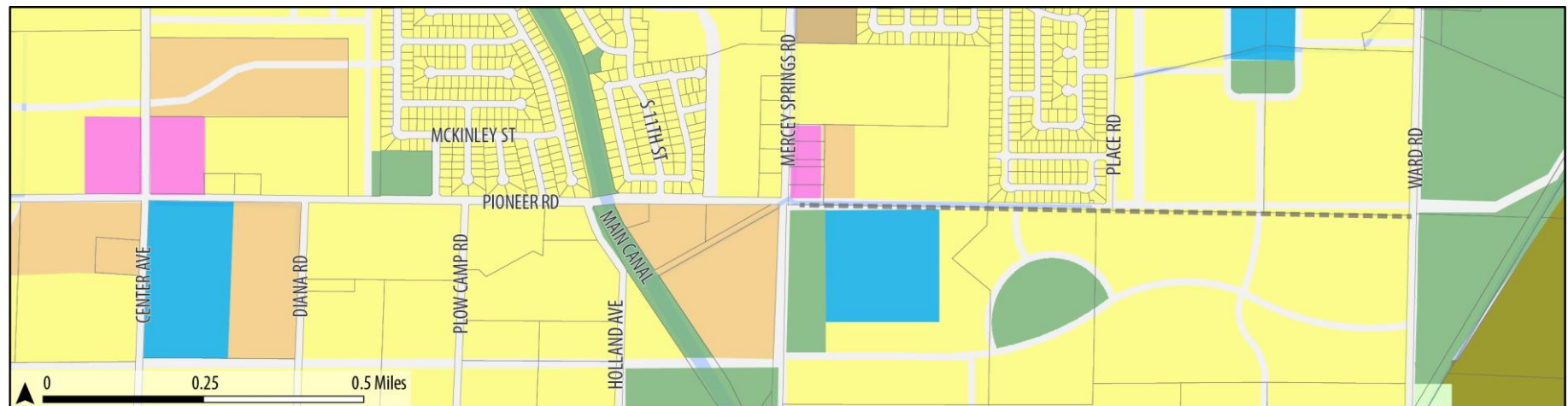
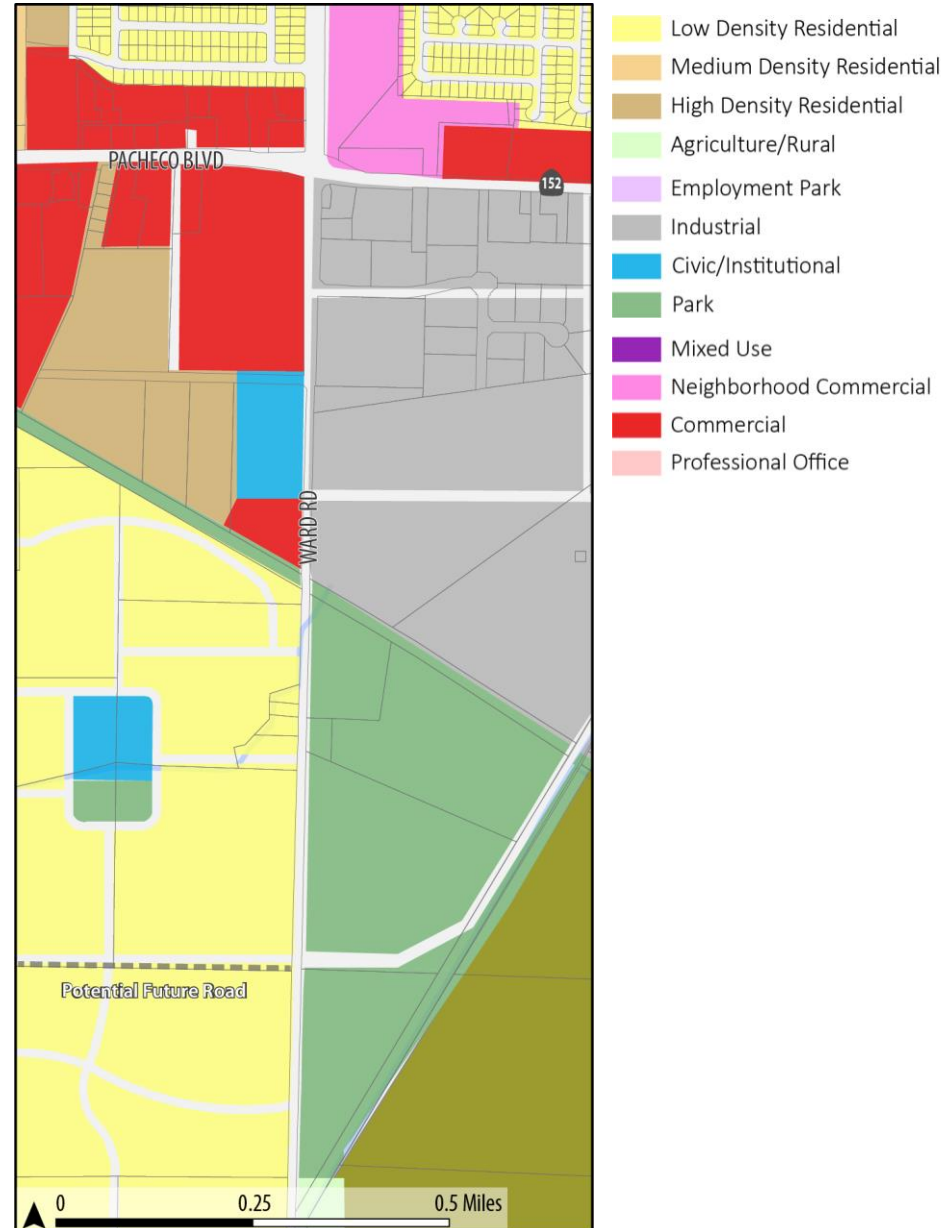


Figure 11. Existing Land Use – Segment 4



Figure 12. General Plan Land Use Designations – Segment 4



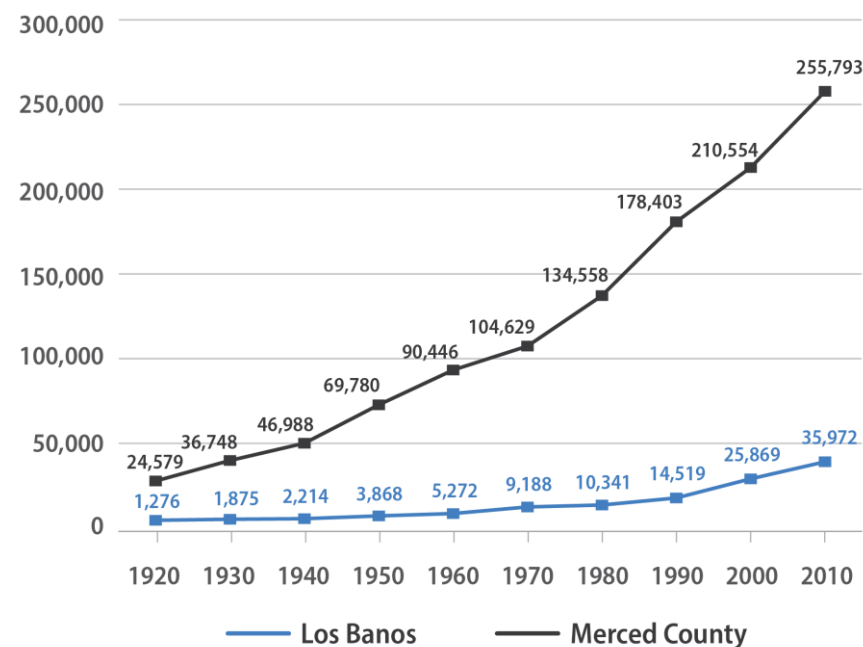
DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

The demographic profile presented in this report 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. The population of Los Banos remained under 5,000 until 1960, when it reached 5,272 residents. As shown in Figure 13, the population grew faster during the following 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

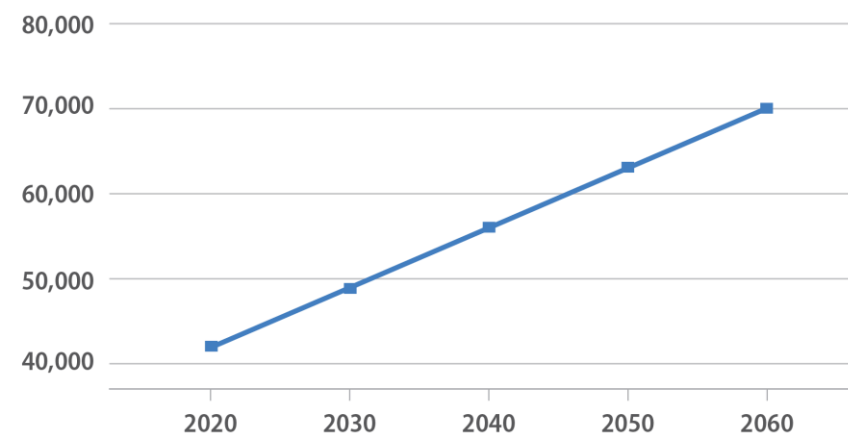
Figure 13. Population Growth in Los Banos and Merced County, 1920-2010



which the population increased from around 15,000 to almost 36,000. By contrast, Merced County's population has been increasing more steadily at an average of 30% per decade since 1920, which is mostly attributable to the City of Merced, the County's Seat and most populous municipality. Although Los Banos is the second most populous city in Merced County at nearly 36,000 people in 2010, the City of Merced is more than twice as large as Los Banos, with nearly 79,000 people in 2010.

The growth rate projections shown in Figure 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 14. Los Banos Population Projections, 2020-2060

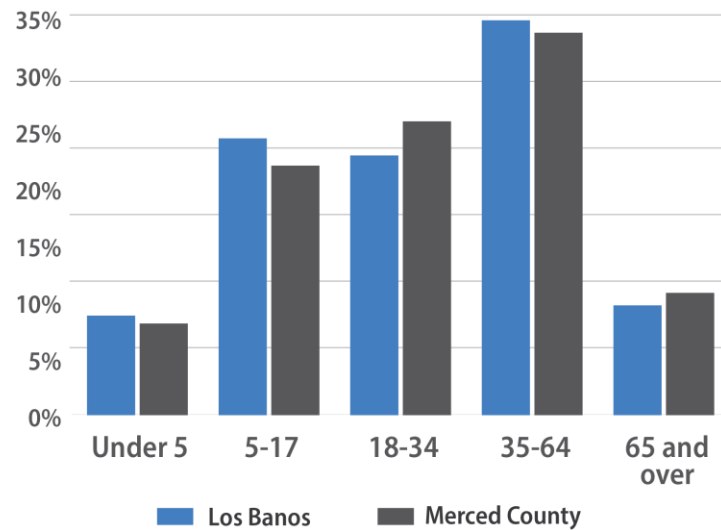


Source: University of the Pacific, 2016

Age Distribution

In terms of age, the population in Los Banos is distributed similarly to that of Merced County as a whole (Figure 15). Children under 18 constitute roughly a 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

Figure 15. Age Distribution in 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 16 and 17, the share of Los Banos residents who identify as Hispanic or Latino is roughly 10% higher than the share of Merced County residents who identify as Hispanic or Latino (of any race).

Figure 16. Los Banos Race and Ethnicity

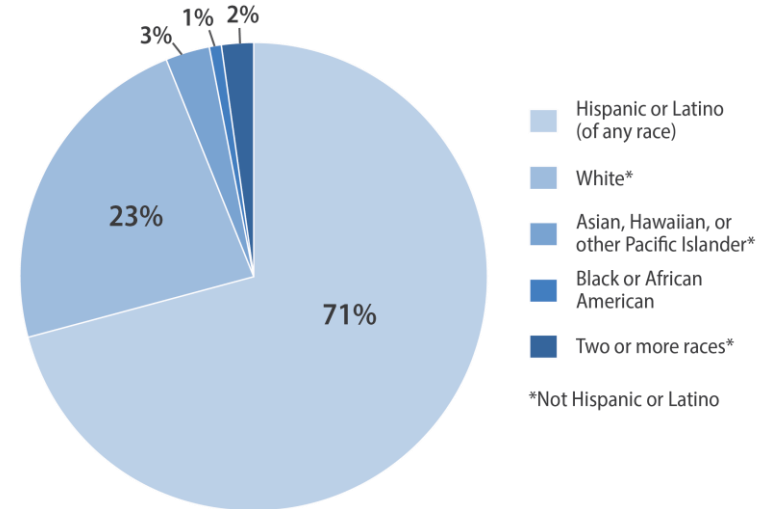
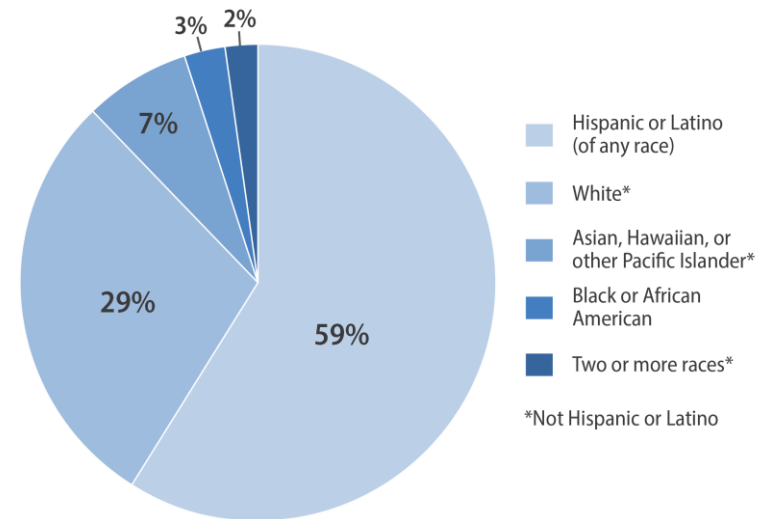


Figure 17. Merced County Race and Ethnicity



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 are 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

In terms of language, 43.2% of households countywide speak primarily Spanish, with 5.3% speaking other Indo-European languages, and 4.5% speaking Asian and Pacific Island language. Of all households in Merced County, 13% report being “limited English-speaking,” meaning most members of the household speak English less than “very well.” Of limited-English speaking households in Merced County, 25.6% speak primarily Spanish, 21.3% 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 4.25% of households speaking other Indo-European languages, and 2.7% speaking Asian or Pacific Island languages. Of all households in Los Banos, 19.5% 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.

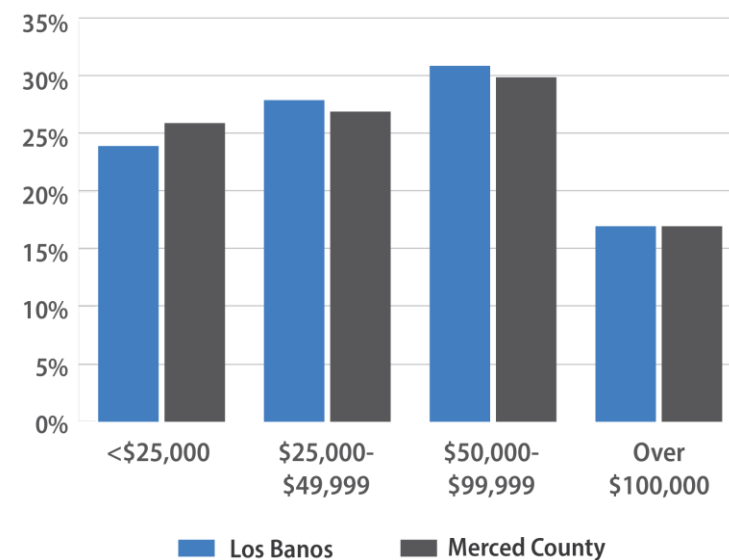
Household Income

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 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.

Figure 18. Income Distribution in Los Banos and Merced County



Means of Transportation to Work

Residents in Los Banos and countywide overwhelmingly drive alone to work, at 81% and 79% respectively. 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.

Table 1. Means of Transportation to Work

Mode	Los Banos	Merced County
Drove Alone	81%	79%
Carpooled	13%	11%
Took Public Transit	1%	1%
Walked	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)

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. 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. 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 four or more vehicles available.

ENVIRONMENTAL FACTORS

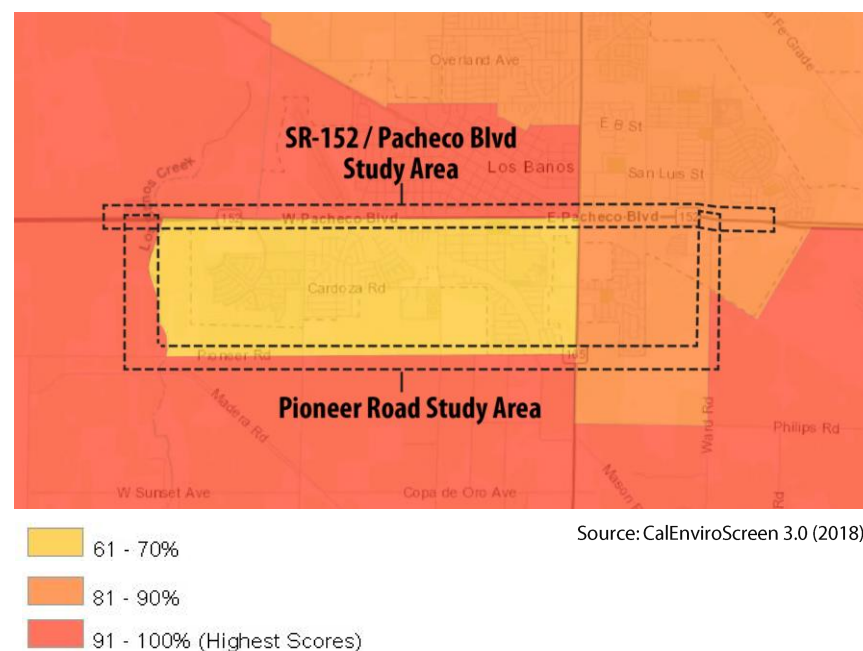
CalEnviroScreen is a mapping tool that helps identify California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. The tool was developed by the Office of Environmental Health Hazard Assessment (OEHHa) and the California Environmental Protection Agency (CalEPA). CalEnviroScreen uses environmental, health, and socioeconomic information to rank census tracts, 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, or more accessible to, communities identified as having high pollution vulnerability according to this tool.

According to CalEnviroScreen 3.0 and as shown Figure 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 with higher populations of low-income residents, many of whom 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. One exception is census tract 22.01: this tract is almost entirely within Los Banos City Limit, but still scores between 90% and 100% in terms of cumulative pollution vulnerability.

Merced County Association of Gov., Fresno County Dept. PWP, Bureau of Land Management, Env. HERE, Garmin, INCREMENT P, USGS, METNABA, NOAA, EPA, USDA | ©2014

Figure 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 Pacheco Boulevard Complete Streets Plan. This section summarizes key local and regional plans, studies and projects.

Los Banos General Plan 2030 Update (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 Study Area is addressed in several elements of the Los Banos General Plan. The western spur of the Study 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.

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.” The planned improvement on Pioneer Road is expanded upon further in the Circulation element, where table 4-5 lists Pioneer Road constructed as a four-lane arterial from the Business Opportunity Area to Ortigalita Road as a planned circulation improvement.

Other planned circulation improvements in the Study Area include widening several roads that intersect with Pioneer, as shown in Figure 4-2 of the Los Banos 2030 General Plan. These are: Ortigalita Road, Badger Flat Road, and Mercey Springs Road (SR-165 within Los Banos City Limits).

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 and Pedestrian Plan (2018)

The Los Banos Bicycle Transportation 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.”

Background research in 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 Study Area:

- A proposed Class 1 bike path along the entire length of the Study 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 Blvd.,
- Several Proposed Class 1 and Class 2 bike paths connecting Pioneer Road with residential neighborhoods and commercial areas to the north, and
- A proposed Class 3 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" as one that emphasizes a pedestrian scale and accessibility by walking (especially to schools), one where neighborhoods are clearly identified and distinguished from one another, and with 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 Study 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 Ortigalito 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 traffic pass-by thru 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 2030 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. The Circulation Element of the Plan identifies Pioneer Road 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 passed in 2008 requires that RTPs also include in them a Sustainable Communities Strategy (SCS) with land use goals and implementation

measures ensuring 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 Study Area:

- Figure 1.7 f on page 19 depicts the length of Pioneer Road between the western Study 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 Study 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. The Rail Trail crosses the northeastern end of the Study Area at the intersection of Pacheco Boulevard (SR-152) and Mercey Springs Road (SR-165). The CCID pathway cross the Study 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 for 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/off 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 Study Area is Merced College. See the Transit section of this report for a more detailed discussion of transit services in the Study Area.

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.

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 statewide. 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 Street 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.

Transportation Concept Reports (TCR)

As long-range planning documents, TCRs identify existing conditions and future needs for each route on the State Highway System (SHS). Developed with the Caltrans Mission, Vision, and Goals in mind, each TCR includes an overall route summary, summaries of individual route segments and maps, existing and future travel data along the route, and a list of planned, programmed, and needed projects over the next 20 years. The most current TCR for SR-152 was published in July 2016. The report analyzes the span of the SR-152 roadway—including how the roadway interfaces with the community of Los Banos.

Corridor Plan (CP)

A multimodal, multijurisdictional way to manage existing transportation infrastructure and systems, the CP involves using capacity improvement projects to optimize a corridor versus increasing roadway capacity for automobiles. CP's provide a lower cost, higher benefit option to make existing roadway systems more efficient. Improvements may include Intelligent Transportation System (ITS) solutions such as adaptive signals and changeable message signs to better manage traffic flow for drivers, transit, and alternative modes alike. A CP was prepared for SR-152.

III. 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 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 DESCRIPTION

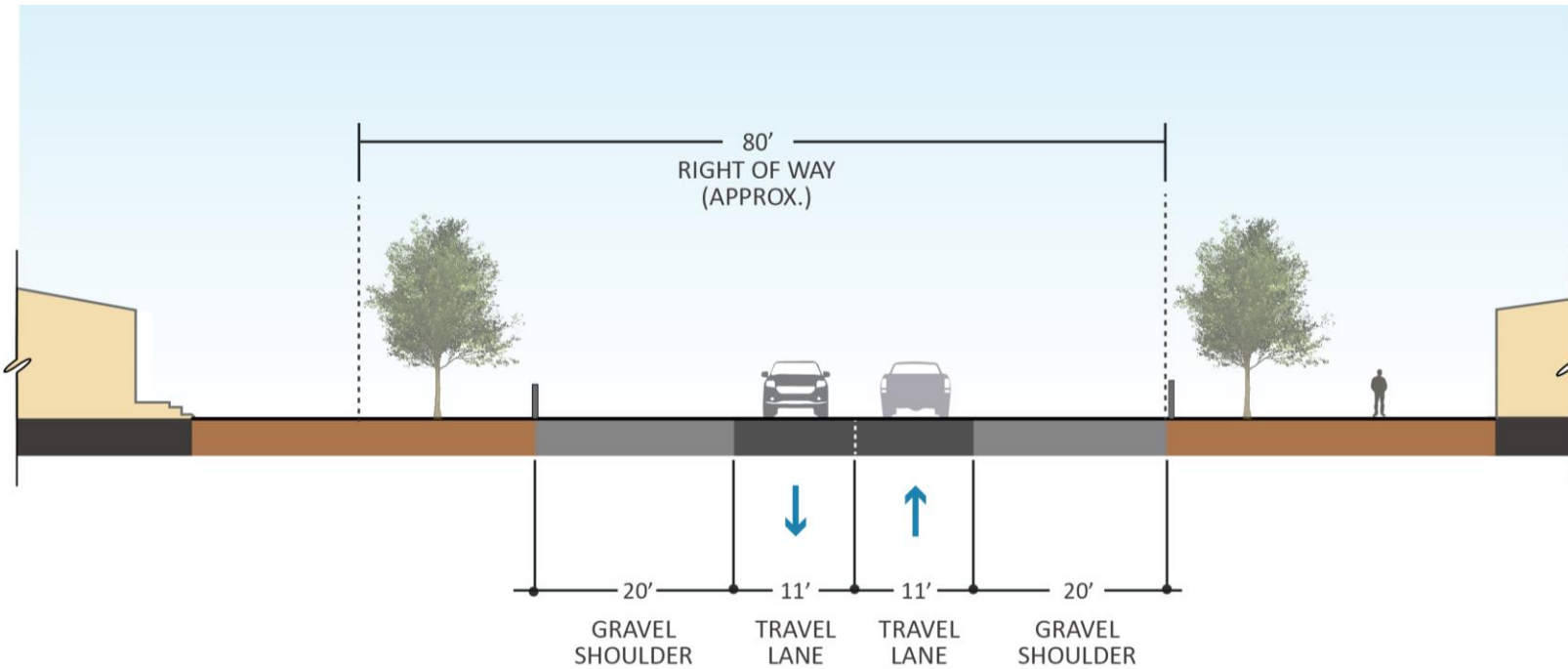
Pioneer Road is a two-lane roadway that provides east-west circulation in the City of Los Banos—the roadway forms portions of the southern boundary of Los Banos, providing access to newer residential developments. Driveway access to private and industrial properties exist along the length of the corridor. 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 gutter 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 Specific Plan project boundary.

Pioneer Road does not have a posted speed limit; 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.



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

Figure 20. West End of Pioneer Road Near Los Banos Creek (Looking East)

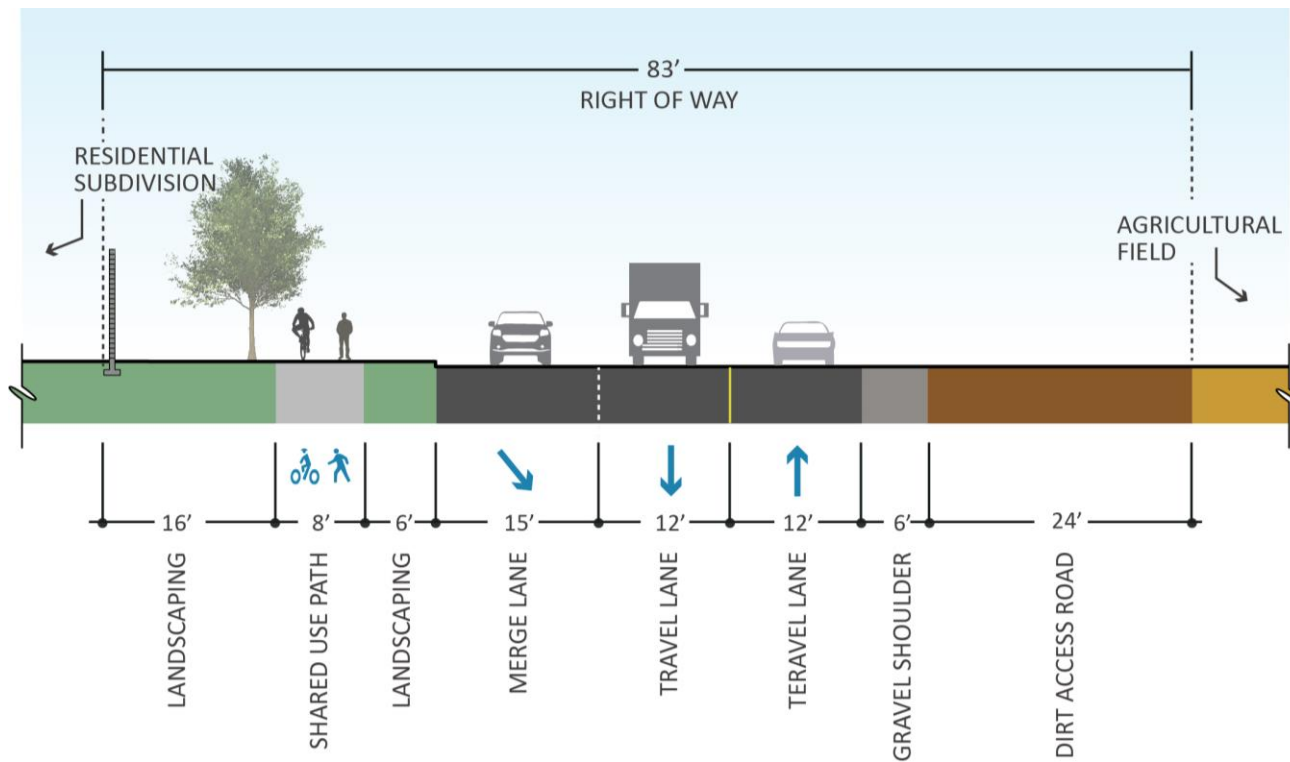


Location of Section Diagram



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

Figure 21. Pioneer Road East of Diana Road and Black Hills Avenue (Looking East)



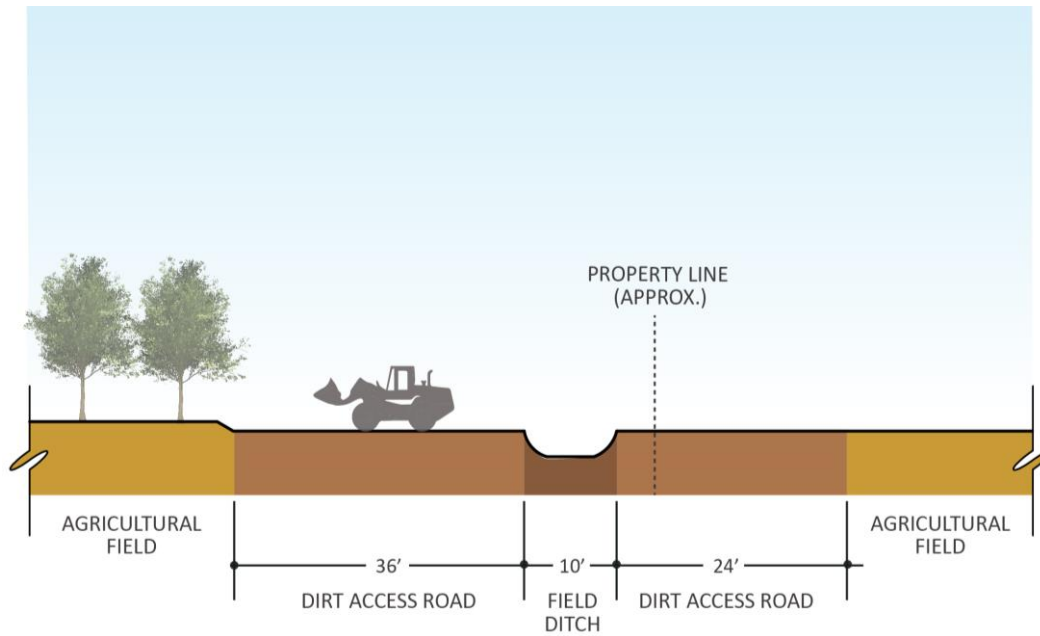
Location of Section Diagram



*Image does not show current roadway configuration or residential development at this location

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 shows a potential configuration for a widened Pioneer Road, with a shared-use path on the north side.

Figure 22. 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



Roadways in the Study 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, oriented northwest to southeast.

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

- **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 freeways and highways. The right-of-way of major arterials spans from 80 to 122 feet. On-street parking should 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 parkstrips, 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 lanes 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. The width of the right-of-way of residential streets spans from 32 to 60 feet with allowances for parking.

Table 3 presents the City's design volumes for the various street classifications, right-of-way curb widths, configuration, design speed, and traffic volumes.

Table 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.

The following section provides descriptions of key roadways that intersect Pioneer Road within the Specific Study Area and provides infrastructure analysis. The roadways are listed from east to west. Table 4 provides a summary of the roadways.

- **Ward Road** is a two- to four-lane roadway providing north-south travel in eastern Los Banos. The roadway is two lanes between Pioneer Road and Pacheco Boulevard, and there are no sidewalks. North of Pacheco Boulevard, 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).
- **State Route 165** is a regional State Highway and is designated as a truck route. Known as Mercey Springs Road, the roadway provides north-south travel through Los Banos. Mercey Springs Road is mostly a two-lane roadway through the City, becoming 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 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 City's Circulation Element depicts a proposed bikeway along this street.
- **Ortigallita Road** is a two- to four-lane roadway that provides north-south circulation. It provides access to residential streets and commercial properties. Class II bicycle lanes exist along the roadway between Pacheco Boulevard and Sandra Street.

Table 4. Roadway Classifications and Configuration

Roadway	Classification	Direction	# of Lanes	Median	(un)Divided	Speed Limit	Sidewalks	Bikeways	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

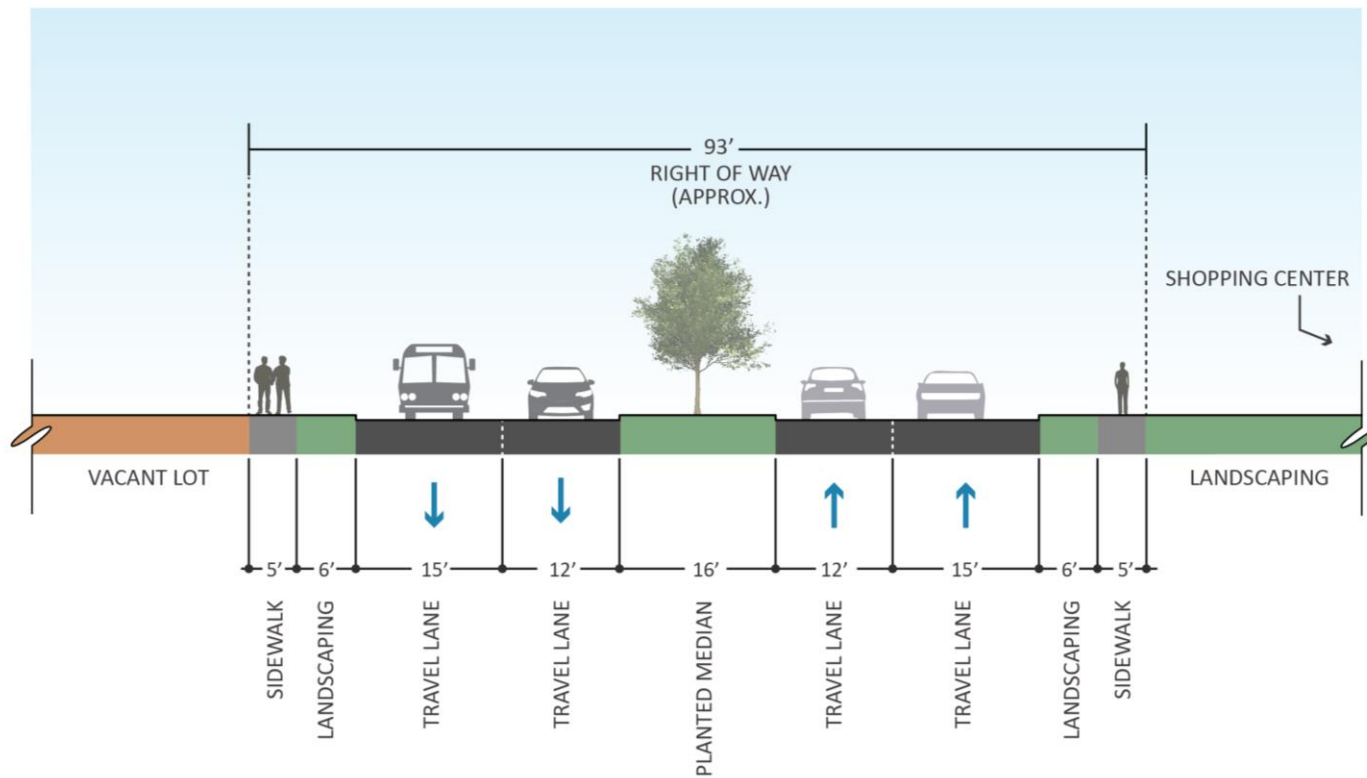
* There are no medians (striped or raised) for the greater length of the corridor, however a stripped median exists between Bloack Hills Avenue and Mercey Springs Road.

** There is a multi-use path that serves as a concept for future bikeways along the roadway

- **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 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.



Figure 23. Badger Flat Road Near Pacheco Boulevard (Looking South)



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 T-intersection. The only interruption to through traffic for Mercey Springs Road and Ward Road in the study area occurs 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.

Existing and Proposed Bicycle Network and Facilities

The Los Banos Bicycle and 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 improvements along Pioneer Road that include a Class I bikeway (see Figure 24), with proposed north-south bikeways providing further connectivity. The bikeway proposed along Pioneer Road is envisioned as part of a continuous Class I shared-use path extending from Pacheco Boulevard to Pioneer Road to Ward Road. The first segment of the proposed bikeway would connect directly to Pioneer Road at the Merced College Campus Drive and Pacheco Boulevard intersection,

moving south where it would connect to Pioneer Road. The bikeway would then run adjacent to Pioneer Road to the Ward Road intersection. The third segment of the bikeway would then proceed along Ward Road to the intersection with Pacheco Boulevard. The following is a list of additional roadways and alignments with proposed bikeways that would intersect Pioneer Road:

- Los Banos Creek (Class I)
- Badger Flat Road (Class I)
- Ortigalita Road (Class II)
- West I Street (Class II)
- Mulberry Street (Class I)
- Center Avenue (Class II)
- 11th Street (Class II)
- Mercey Springs Road (Class III)
- Place Road (Class II)
- Canal Trail (Class I)
- Rail Trail (at Ward Rd) (Class I)



Source: city-data.com

Figure 24. Existing and Proposed Bikeways in Los Banos

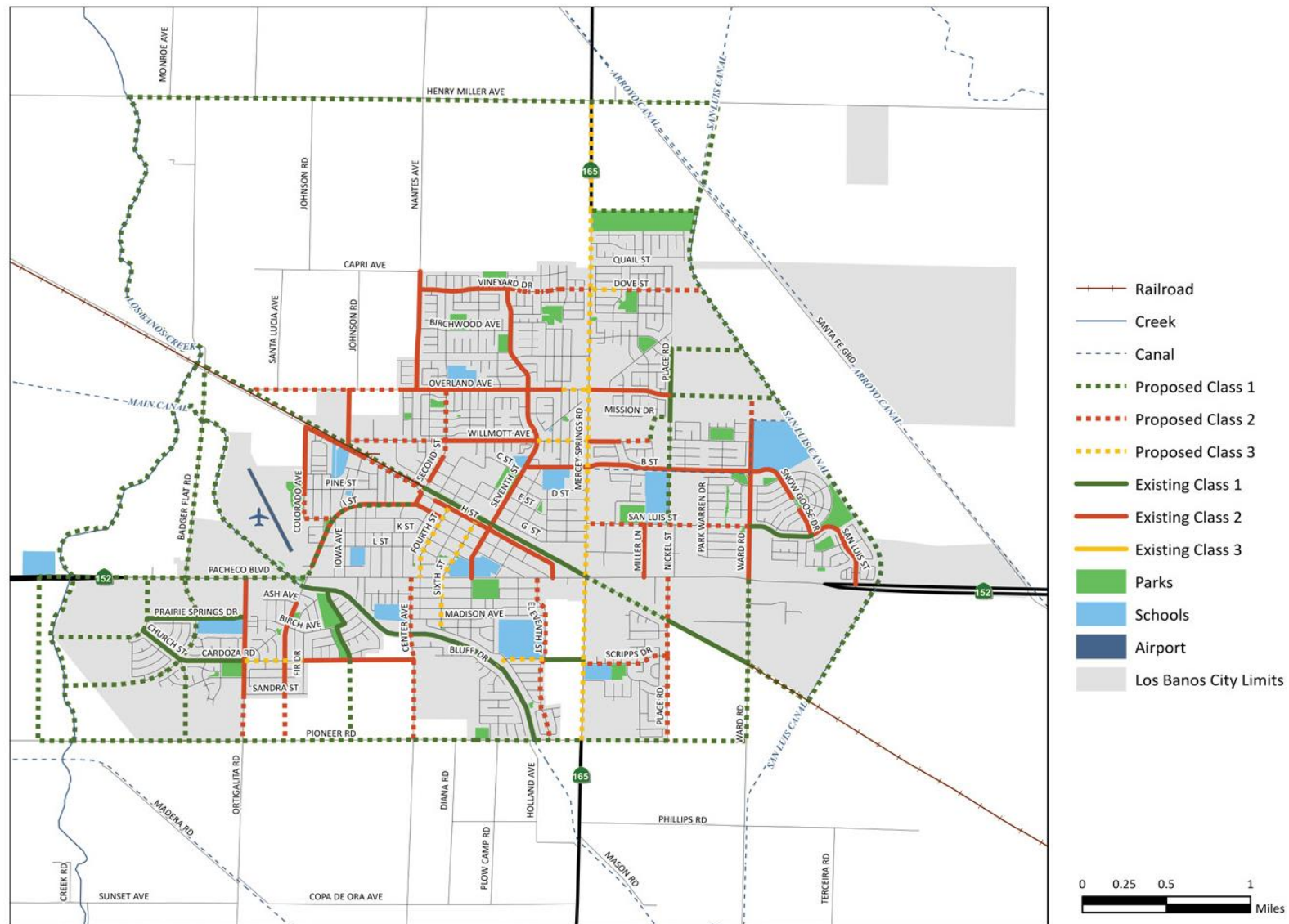


Image source: Los Banos Pedestrian-Bicycle Plan, MCAG (2018)

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

The description on the following page presents published traffic volumes on roadways and intersections in the study area. Roadway capacity is generally limited by the ability to move vehicles through intersections. A 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.¹ 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 Study Area (Table 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.

Table 5. Roadway Segments Average Daily Traffic

Segment			Existing Conditions	
Roadway	From	To	Daily Traffic Volumes ^a	No. of Lanes
Pioneer Road	11 th 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.

¹ Traffic Impact Analysis for Presidential Estates East Area Plan, prepared by KD Anderson & Associates Inc. (2016)

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 25 presents ADT volumes and Intersection LOS analysis.

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 4 provides a list of the intersections evaluated along Pioneer Road and Mercey Springs Road. All study area intersections currently operate at LOS B to D during the peak hours.

Table 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 11 th 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.

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 26 depicts the current configuration of medians and undivided roadway along Pioneer Road. (The figure does not include the west Study 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.

As discussed above, the land use along Pioneer Road is primarily designated as low density residential with agriculture, civic-institutional, and neighborhood commercial land uses planned for parcels along the corridor. Future development in the southwest area of Los Banos will comprise of mix of land uses, which will require significant access management consideration. Residential development in the eastern segment of Pioneer Road has already begun to change the agricultural character of the corridor.

Mercey Springs Road

Due to the predominance of agricultural land and the configuration of the roadway along Mercey Springs Road, there are limited access driveways,

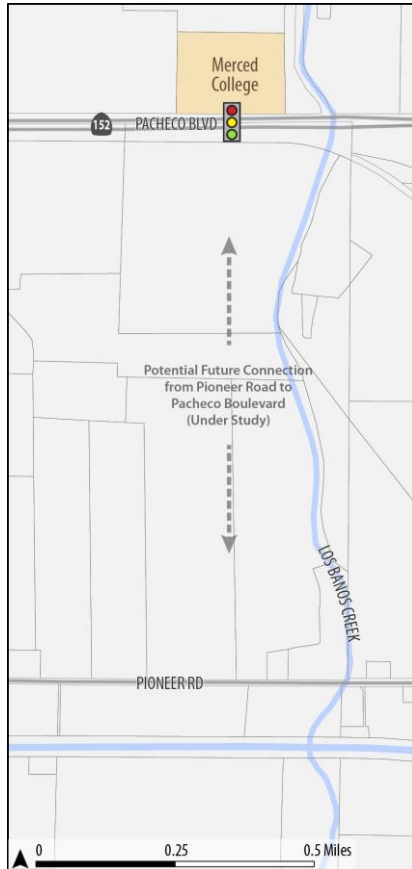
many of which are unpaved. The road is mostly a two-lane undivided roadway with a broken yellow striped line in the center. A raised median with left turn bay exists at the south leg of the intersection with Pacheco Boulevard.

Ward Road

The segment of Ward Road between Pacheco Boulevard and Pioneer Road has a future designation of industrial, commercial, civic-institution, park, and low-high residential land. Currently the area is largely undeveloped with long distances between parcels and residential properties. Overall, the area has an agricultural character with limited driveway access points. The 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, the roadway then alternates between divided and undivided roadway applications southbound to Pioneer Road.

Figure 25. Controlled Intersections, Average Daily Traffic, and Level of Service

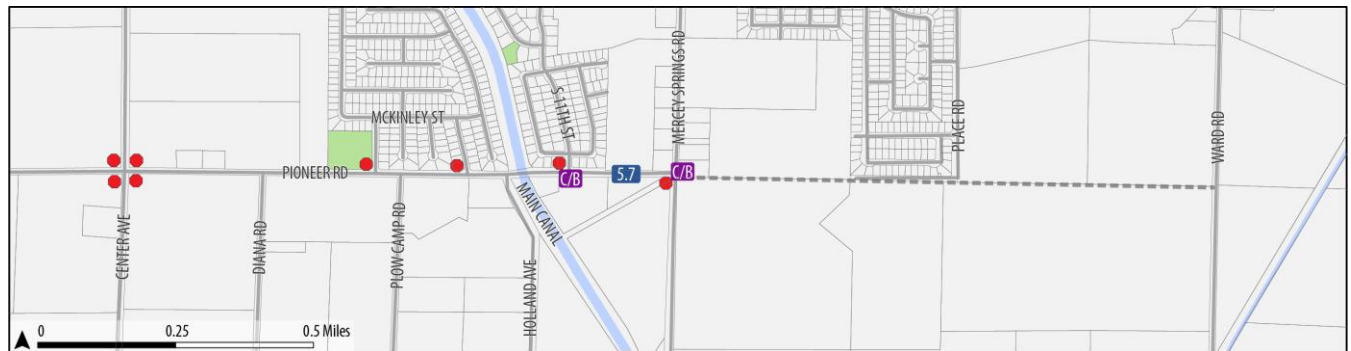
Segment 1



Segment 2



Segment 3



- Traffic Signal
- Stop Sign Location
- ADT Volumes (1,000s)
- Intersection LOS - Weekday (AM/PM)
- Potential Future Road
- Parcels
- Waterways
- Roads
- Parks
- Schools

Figure 25 (Cont'd). Controlled Intersections, Average Daily Traffic, and Level of Service

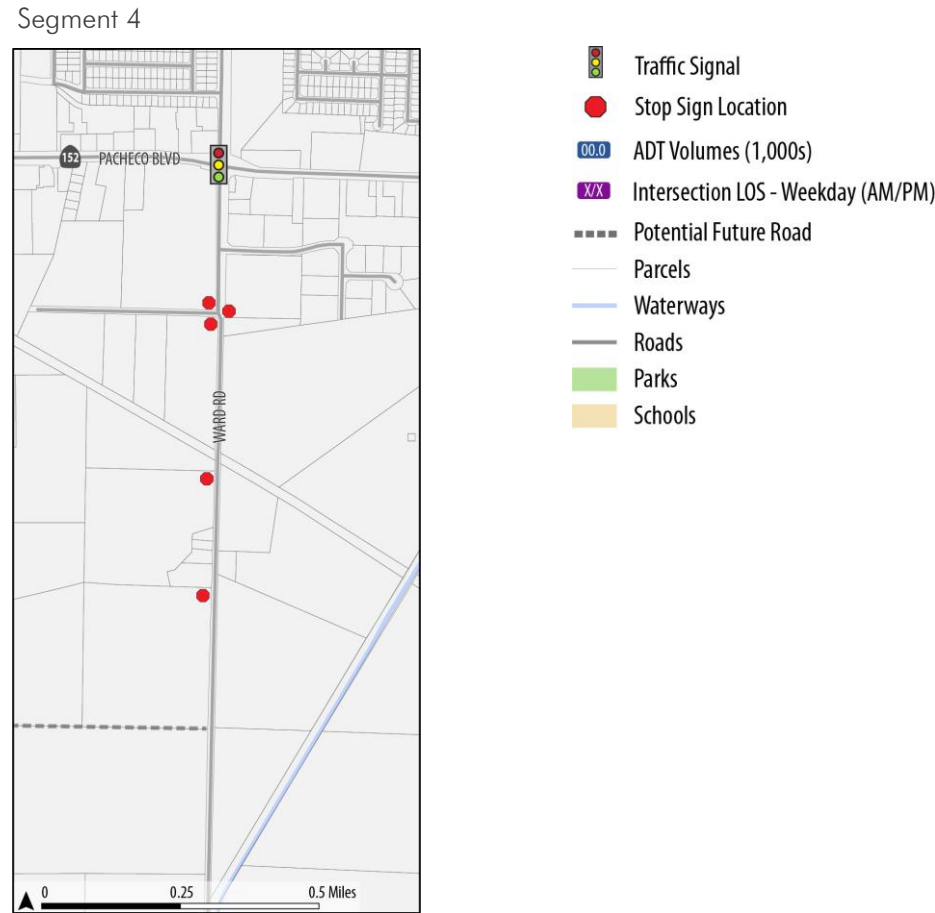
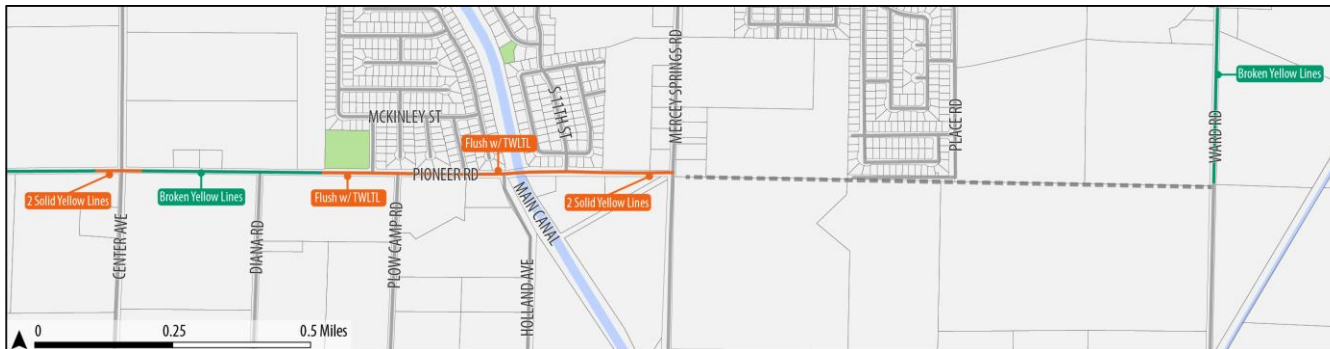


Figure 26. Median Types Along Pioneer Road and Ward Road*

Segment 2



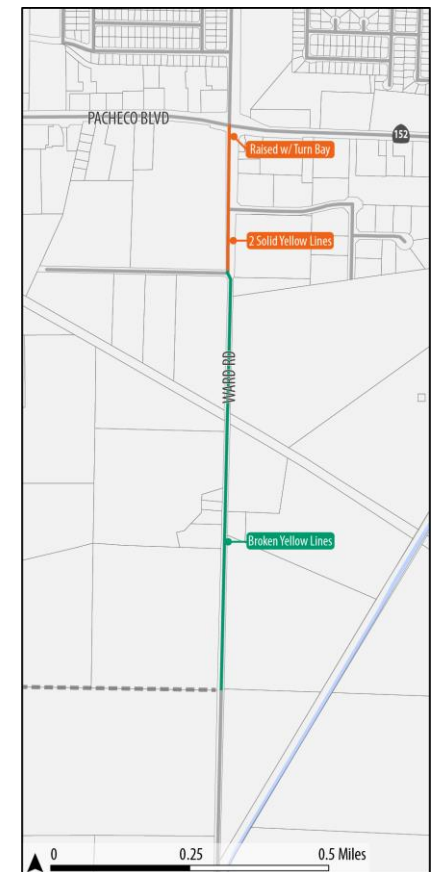
Segment 3



*Segment 1 is excluded from this figure because it contains no existing roadway.

- Divided Roadway
- Undivided Roadway
- Parcels
- Waterways
- Roads
- Potential Future Road
- Parks
- Schools

Segment 4





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 7 details projects of relevance in Los Banos by jurisdiction.

Table 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	SR 152 to Henry Miller Road	Road Capacity	2025	\$20,000	Measure V
Los Banos	Merced College Bike/Pedestrian Trail	Badger Flat Road/SR 152 to Merced College	Active (Bike/Ped)	2020	\$1,200	Measure V
Los Banos	Sidewalk infill at various locations	–	Active (Bike/Ped)	2020	\$319	ATP, CMAQ
Los Banos	Various locations	Berkley Drive to St. Francis drive at various locations; Also, on SR 152 from 7 th Street to H Street (PM 20.6/21.1) at 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 Maintenance	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).

IV. 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 Study Area. All eight collisions in the Study Area during this period involved motor vehicles only—none involved a bicycle or pedestrian, and none resulted in death or severe injury.

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 Study Area during this period were on Pacheco Boulevard at or near the intersection with Ward Road in the eastern spur of the Study Area.

V. 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 Study 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. If any roundabouts are proposed, truck movements will need to be accommodated there as well.

KEY OPPORTUNITIES

- **Provide an Alternative Route to Pacheco Boulevard.** A future widening of Pioneer 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.
- **Innovative Intersection Design:** There is the potential to explore innovative design treatments for intersections, including roundabouts.
- **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.** In order 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.