Chapter 3 Affected Environment, Environmental Consequences and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the proposed project could have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from the Build Alternatives, and proposed avoidance, minimization, and/or mitigation measures pursuant to CEQA and NEPA requirements. A CEQA checklist, which evaluates the level of impacts under each environmental resource, is provided in Appendix B.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no impacts were identified. As a result, there is no further discussion about these issues in this document:

- Coastal Zone – The project is located outside of, and is non-contiguous to, the coastal zone; it is not anticipated to have any effects on coastal resources.
- Wild and Scenic Rivers – The project would provide a new SR-108 within Stanislaus County. There are no designated Wild and Scenic Rivers in the vicinity of the project.
- Hydrology and Floodplain – A review of Federal Emergency Management Agency maps confirmed that there are no 100-year floodplain resources in the project area, and therefore this project would have no impacts to hydrology and floodplain resources.
- Wildfire – A review of the state responsibility areas and lands classified as very high fire hazard severity zones confirmed that there are no mapped wildfire areas within or near the project area, and therefore this project would have no impacts to wildfire resources.

3.1 Human Environment

3.1.1 Land Use

A Community Impact Assessment (CIA) for the North County Corridor New SR-108 Project was completed in February 2016, and an Addendum was completed in October 2019, and it is summarized here in Section 3.1 Human Environment.

3.1.1.1 Existing and Future Land Uses

The proposed project would be constructed in northern Stanislaus County, which is located in the northern part of the San Joaquin Valley. Stanislaus County is a fast-growing agricultural county in transition. While its economic base remains predominately agricultural, the county's economy is diversifying, and population growth has increased pressures of urbanization. The project area is composed of three cities—Modesto, Riverbank, and Oakdale— as well as unincorporated land in Stanislaus County.

A look at local land use patterns can indicate a community's organizational structure, including where its residents live, work, and recreate. The Land Use Element is a required section of a municipality's general plan that governs zoning and planning for the given region. The Land Use Element also defines where growth may occur within the region and identifies Specific Plans for areas of special interest, such as commercial centers, neighborhoods, and redevelopment areas within the cities. By describing the existing and projected major land uses in the affected area and the surrounding region, the information can be used to analyze any potential land use changes or land use conflicts associated with the proposed project.

Affected Environment

For the purpose of this EIR/EIS, Section 3.1.1.1 considers both the project area and the surrounding jurisdictions (Secondary Impact Area). The study area consists of both the project area and the Secondary Impact Area. The total land area of the project area is 147.89 square miles. Generally, land uses within the project area are a mix of farmland, open space, residential, commercial, civic, and industrial uses. Figure 3.1.1.1-1, in Appendix A, shows the current zoning designation within the project area.

Within the study area, residential and commercial spaces are located within zones designated for agricultural, urban transition, planned development, and planned industrial in the communities of Modesto and Riverbank. Industrial and open spaces are present south of the City of Oakdale. Farmland occurs throughout the proposed project corridor, but is more common on the unincorporated County land in Segments 2 and 3 of the project area. The Secondary Impact Area consists of generally the same types of land uses occurring within the project area.

Development Trends

Stanislaus County is an agricultural county and one of the fastest-growing counties in California. According to the 2010 U.S. Census, the total population of Stanislaus County in 2010 was 514,453 (growing 15.09 percent since 2000). This population growth is much higher than the state average rate of 9.99 percent. According to the Stanislaus County General Plan, population increases in the 1980s occurred in the nine incorporated cities rather than the unincorporated areas of the county. The population continues to shift from rural to urban life. At the same time, the county's economy has diversified, and population growth continues to increase pressure to convert agricultural lands to non-agricultural uses (Stanislaus County, 1994).

Most of the cities in Stanislaus County have or are considering significant expansions of their spheres of influence, and the general plan of each affected jurisdiction outlines the overall goals for growth within the affected communities. Anticipating continued growth, the City of Modesto set out goals to encourage business development and expansion, improve public transportation, and expand water treatment and supply facilities (City of Modesto, 2008). The City of Riverbank plans to expand road capacity, business and commercial land uses, public utility services, and public service facilities (City of Riverbank, 2009). The City of Oakdale plans to expand its boundaries and future sphere of influence to the south, including public services, employment opportunities, and public transit expansions to accommodate this planned growth (City of Oakdale, 2013a). These goals and policies are discussed in detail in Section 2.2 Consistency with State, Regional, and Local Plans.

Table 3.1.1.1-1 presents a list of potentially influential projects in jurisdictions surrounding the North County Corridor. These projects would likely be located within or next to the boundaries of the study area and have the potential to cumulatively affect the urban character, community cohesion, access patterns, and economic characteristic of the project vicinity. Figure 3.1.1.1-2, in Appendix A, shows the planned land use within the study area.

Environmental Consequences

Build Alternatives

Land use impacts from construction and operation of all Build Alternatives are relatively similar. Existing land use within the project area for all alternatives consists of a variety of residential and commercial developments that are located in the Modesto and Riverbank communities. The project area for all alternatives within Oakdale and unincorporated county land mainly consists of farmland and open spaces.

Acquisition of partial and full agricultural parcels along the project corridor is expected for road widening and construction of the new roadway. Between 397 and 576 acres of farmland is anticipated to be acquired to accommodate the new roadway. Additional acquisition of other properties, including between 114 and 136 residential and between 33 and 42 commercial, is also expected along the proposed corridor for all Build Alternatives.

As the proposed roadway would function as a freeway/expressway with controlled access, new and realigned frontage roads are needed to provide continued access to existing properties. Location of all frontage roads is shown in Figure 3.1.1.1-2, in Appendix A. Access to parcels on major crossroads of the North County Corridor may be modified to right-in/right-out due to the installation of a center median.

Alternatives 1B and 2B would require the acquisition of larger amounts of land, with 576 acres and 540 acres of anticipated farmland acquisition, whereas Alternative 1A and 2A would only result in 470 and 397 acres of farmland acquisition, respectively. Alternative 2A would result in the most residential relocations, with 136 relocations, whereas Alternative 1B and 2B would result in 114 residential relocations. Further, Alternative 2A would result in the most non-residential relocations, with 42 relocations, whereas Alternative 1B would result in 33 non-residential relocations. Relocation impacts associated with implementation of the project are discussed in further detail in Section 3.1.4.2 Relocations.

The proposed project is designed to follow Caltrans design and safety standards while minimizing acquisition. To minimize parcel acquisitions and avoid unnecessary impact to the community, the project has been designed with input from the public. The project design team (composed of members from Caltrans Districts 10 and 6, Stanislaus County, the cities of Modesto, Riverbank and Oakdale, and engineering, environmental and public relations consultant members) has conducted and participated in a number of community outreach meetings with the general public, public entities, and interested stakeholders since 2011 in an effort to gather input and comments from members from the surrounding communities. Also, meetings with individual property owners occurred throughout the project planning and design phase to address individual concerns. Frontage roads were designed to provide access to existing properties along the North County Corridor. Public input on the alignment of the North County Corridor and frontage roads has been incorporated during project design to minimize impacts associated with parcel acquisition along and next to the North County Corridor.

Summaries of the public meetings, discussions with property owners, and other public outreach efforts are summarized in Section 5.3 Public Participation.

Future Land Uses

The following table presents future projects within the vicinity of the project area. The project considers these projects in the cumulative impact section of this EIR/EIS. All Build Alternatives have the same impacts related to future land uses.

Table 3.1.1.1-1: Future Projects

Project Name	Jurisdiction	Proposed Uses	Status
SR-219 (Kiernan Avenue)	Stanislaus County, City of Modesto	This project is a 4-lane divided highway with right-of-way for eventual expansion to 6 lanes for future needs.	Phase I completed; Phase II Under Construction
Woodglen Specific Plan	City of Modesto	The Woodglen Specific Plan provides for the development of 180 Multi-Family Residential units and 353 Low-Density Residential units for a total of 533 units. An open space area with a storm water infiltration basin and active and passive recreation areas would occupy the central portion of the proposed project site.	Pending Implementation
The Market Place Shopping Center	City of Modesto	This 18-acre project will be located on the southwest corner of Oakdale Road and Sylvan Avenue, with a total of 170,000 square feet of retail space. A 51,730 square-foot grocery store is proposed to anchor the center.	Pending Implementation
Tivoli Specific Plan	City of Modesto	The project is a blueprint for future residential and non-residential development proposed to occur in the City of Modesto. The project is expected to develop between 1,900 and 3,200 housing units and 1,025,000 square feet of non-residential land uses on approximately 345 acres. It includes mixed-density housing.	Pending Implementation
Woodward Reservoir—T-Island and Muir Point Campsites	Stanislaus County	Development of additional full hookup campsites at Woodward Reservoir. This project will develop 41 campsites at T-Island and 20 campsites at Muir Point.	Pending Implementation
Pirrone Road and Sisk Road Salida Sidewalk Project Phase I-Safety	Stanislaus County	The project will improve sidewalks on Pirrone Road and Sisk Road.	Pending Implementation
SR-132 West	Stanislaus County	This project will construct a 4-lane freeway/expressway to reroute SR-132 away from downtown. The project will improve connectivity for SR-132 and SR-99 through the congested downtown area of the City of Modesto.	Approved/Funded
SR-132 Dakota Avenue to Gates Road	Stanislaus County	This project will construct an access controlled facility within the western central portion of Stanislaus County, from Gates Road to Dakota Avenue.	Approved/Funded

Project Name	Jurisdiction	Proposed Uses	Status
Video Visitation Facility	Stanislaus County	This project will provide for a physical location to accommodate video visitation equipment, monitoring, scheduling, and control.	Approved/Funded
Re-entry Alternatives to Custody and Transition (REACT) (Senate Bill 1022)	Stanislaus County	This project will develop a center with transitional programs, alternatives to custody, and up to 288 beds of detention/return-to-custody housing and services.	Future Project/ Master Planned
Stanislaus County Veterans Center	Stanislaus County	This project will develop a Veteran's Center for consolidation of services to Stanislaus County veterans, including counseling, medical referrals, transportation, social, educational, VA and Cal Vet benefits coordination.	Future Project/ Master Planned
Sierra Pointe Specific Plan	City of Oakdale	This specific plan for the future development of approximately 297 acres of land on the southeastern edge of the City of Oakdale into residential neighborhoods, parks and open space, and mixed-use corridor.	Adopted
South Oakdale Industrial Specific Plan	City of Oakdale	This specific plan is for the future development of approximately 500 acres of land in the southernmost region of the City of Oakdale to expand the City's existing industrial center.	Adopted
East F Street Corridor Specific Plan	City of Oakdale	This specific plan will provide a mix of residential and commercial land uses along existing SR-108/SR-120 (East F Street) on about 187 acres.	Adopted
Crane Crossing Specific Plan	City of Oakdale	This specific plan is for the future development of approximately 262 acres of land along the northeastern edge of the City of Oakdale into residential neighborhoods, parks and open space, and mixed-use corridor.	Adopted
Riverbank Industrial Complex (formerly the Riverbank Army Ammunition Plant)	City of Riverbank	100 acres of undeveloped land and a 74-acre industrial and manufacturing center with 700,000 square feet of industrial building space.	Future Project/ Master Planned
Riverbank Industrial Complex	City of Riverbank	146-Acre Specific Plan could generate 119,058 square feet of Commercial / Retail, 1,411,541 square feet of Industrial, and 116,637 square feet of Office / Research & Development	Pending Project
Bruinville Development Easet Side of Riverbank	City of Riverbank	515 potential single-family homes, in addition to Riverbank Family Apartments with 72 units of High-Density Residential.	Pending Project
Crossroads West Specific Plan	City of Riverbank	390-acre Specific Plan could generate 1,872 Low-Density Residential units, 192 Medium-Density Residential units, 388 High-Density Residential units, 550,000 square feet of Commercial / Retail, fire station site, expanded parks and regional sports complex, and schools.	Pending Project

Source: Stanislaus County, 2013; Stanislaus County, 2014; City of Modesto, 2012; City of Modesto, 2013; City of Oakdale 2006; City of Oakdale 2013b; City of Oakdale, 2013c

Temporary Construction Impacts

Implementation of the project would temporarily expose residents and motorists to views of the project site. Construction-related vehicle access and staging of construction materials would occur within disturbed or developed areas along the length of the project site during the construction period.

No-Build Alternative

No land would be acquired to provide for roadway improvements under the No-Build Alternative. However, the No-Build Alternative would not conform with the circulation analysis and developed plans, programs, and policies in the Stanislaus County General Plan, StanCOG Regional Transportation Plan, or cities of Modesto, Riverbank and Oakdale general plans. These development plans envision transportation improvements that would provide greater connectivity with the North County Corridor to reduce existing and future traffic congestion in northern Stanislaus County and support the efficient movement of goods in the region. The No-Build Alternative would not meet these objectives.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

3.1.1.2 Consistency with State, Regional and Local Plans

The project area lies within or next to three incorporated cities and Stanislaus County; the proposed alternatives cross Stanislaus County and the cities of Modesto, Riverbank and Oakdale. State law requires that each of these jurisdictions adopt “a comprehensive, long-term General Plan for [its] physical development.” The General Plan is the official city or county policy document regarding the location of housing, business, industry, roads, parks, and other land uses. It also covers protection of the public from noise and other environmental hazards, and for the conservation of natural resources. The legislative body of each city (the City Council) and each county (the Board of Supervisors) adopts zoning, subdivision, and other ordinances to regulate land uses and to carry out the policies of its General Plan.

Affected Environment

A Community Impact Assessment (CIA) for the North County Corridor New SR-108 Project was completed in February 2016, and it is summarized here in Section 3.1.1.2 Consistency with State, Regional and Local Plans.

General Plans and Policies

The proposed alternatives of North County Corridor cross Stanislaus County and the cities of Modesto, Riverbank and Oakdale. State law requires that each of these jurisdictions adopt “a comprehensive, long-term General Plan for [its] physical development”. The general plan is the official city or county policy document regarding the location of housing, business, industry, roads, parks, and other land uses, protection of the public from noise and other environmental hazards, and for the conservation of natural resources. The legislative body of each city (the

City Council) and each county (the Board of Supervisors) adopts zoning, subdivision, and other ordinances to regulate land uses and to carry out the policies of its general plan.

Stanislaus County General Plan

The existing Stanislaus County General Plan places specific emphasis on goals, policies, and implementation measures that focus on: the management of population and economic growth; development of infrastructure system and public services; conservation of air, water, and other natural resources; cooperation between the county and other agencies; and provision of public safety.

Stanislaus Council of Governments' Regional Transportation Plan

The existing Stanislaus Council of Government's (StanCOG) 2018 Regional Transportation Plan (RTP) is the principal tool used by the county to implement transportation policies. The Regional Transportation Plan sets out five goals as specific guidance to improve the transportation system and the region as a whole: Mobility, Safety and System Preservation, Environmental Quality, Economic/Community Vitality, and Social Equity. The plan is a short-range and long-range strategy intended to lead to the development of an integrated transportation system that facilitates the efficient movement of goods and people (Stanislaus County, 2018).

City of Modesto General Plan

The existing City of Modesto Final Urban Area General Plan provides guidance for achieving its mission of preserving Modesto's "quality of life" while providing direction for the growth of businesses and industry to meet the needs of the future generation in the Modesto community (City of Modesto, 2008).

City of Riverbank General Plan

The existing City of Riverbank General Plan 2005-2025 supports its vision of a small town where residents can live, work, and play locally. The City strives to preserve its strong sense of community, protect agricultural and natural resources, and create a balance between housing and jobs (City of Riverbank, 2009).

City of Oakdale General Plan

The existing Oakdale 2030 General Plan reflects goals and policies related to its vision of a small town character and sense of community; a vital and distinct downtown; well-planned and managed growth; an attractive community; diverse residential neighborhoods; retail, service, and entertainment choices; broad opportunities for industry and employment; a safe community with quality public services; transportation options; a green community; and responsive governance and regional leadership (City of Oakdale, 2013).

Environmental Consequences

Build Alternatives 1A, 2A, 1B and 2B

The build alternatives are consistent with the General Plan Policies and Goals discussed in the following tables:

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Table 3.1.1.2-1: Stanislaus County General Plan Policies and Goals Relevant to the Proposed Project

Stanislaus County General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Land Use Element			
Policy 24	Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, and similar facilities.	The project will require discretionary approval approved by the cities of Modesto, Riverbank, and Oakdale. The project is consistent with all development standards set forth by these cities.	No development would occur, and no approval would be required.
Spheres of Influence Policy 1	Development, other than agricultural uses and churches, which requires discretionary approval from incorporated cities shall be referred to that city for preliminary approval. The project shall not be approved by the County unless written communication is received from the city memorializing their approval. If approved by the city, the city should specify what conditions are necessary to ensure that development will comply with city development standards. Requested conditions for such things as sewer service in an area where none is available shall not be imposed. Approval from a city does not preclude the County decision-making body from exercising discretion, and it may either approve or deny the project.	The project will require discretionary approval approved by the cities of Modesto, Riverbank, and Oakdale. The project is consistent with all development standards set forth by these cities.	No development would occur, and no approval would be required.
Circulation Element			
Goal 1	Provide a system of streets and roads throughout the County which meets land use needs.	The project would improve circulation in the northern County and provide an improved road system that meets the County's land use needs.	The existing road system would remain inadequate.
Policy 2	Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion.	The project would minimize traffic congestion on the existing SR-108 and the regional traffic network through the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases.

Stanislaus County General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy 4	The circulation system shall provide for roads in all classifications (Freeway, Expressway, Major, Collector, Local, Minor and Private) as necessary to provide access to all parts of the County and shall be expanded or improved to provide acceptable levels of service based on anticipated land use.	The project will provide acceptable level of service and provide frontage roads to maintain access to all parcels.	Traffic congestion will continue to worsen due to projected traffic volume increases
Goal 2	Provide a safe, comprehensive, coordinated transportation system that includes a broad range of transportation modes.	The North County Corridor would be a freeway/ expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Policy 7	Bikeways and pedestrian facilities shall be designed to provide reasonable access from residential areas to major bicycle and pedestrian traffic destinations such as schools, recreation and transportation facilities, centers of employment, and shopping areas.	The North County Corridor would be a freeway/ expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Goal 3	Maintain a balanced and efficient transportation system that facilitates inter-city and interregional travel and goods movement.	The project would support the efficient movement of goods and services throughout the region by providing a more direct and dependable truck route, increasing the average operating speeds of all vehicles, and reducing the number of areas of conflict between motorized traffic and non-motorized means of travel	Traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods and increase commute times of cross-county traffic.
Policy 9	The County shall promote the development of inter-city and interregional transportation facilities that more efficiently moves goods and freight within and through the region.	The project would improve the efficiency of inter-city and interregional travel by reducing travel times for long distance commuters, recreational traffic, and interregional goods movement.	Traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods. Commuter congestion will continue to worsen as traffic volume increases.
Conservation/Open Space Element			
Goal 1	Encourage the protection and preservation of natural and scenic areas throughout the County.	The project would not have a substantial adverse impact on natural and scenic areas.	No impact would occur.

Stanislaus County General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Goal 6	Improve air quality.	Temporary construction-related air quality impacts would occur along the North County Corridor. Measures will be implemented to reduce any of these impacts. The project operation would not have a substantial adverse impact on air quality.	Air quality would continue to worsen as traffic volume increases.
Goal 19	The County will strive to accurately determine and fairly mitigate the local and regional air quality impacts of proposed projects.	Temporary construction-related air quality impacts would occur along the North County Corridor. Measures will be implemented to reduce any of these impacts. The project operation would not have a substantial adverse impact on air quality.	Air quality would continue to worsen as traffic volume increases, and LOS deteriorates.
Goal 8	Preserve areas of national, state, regional and local historical importance.	All Build Alternatives could affect 4 potentially Historic Structures during project construction. Measures will be implemented to avoid and/or minimize any impact to historic resources.	No impact would occur.
Policy 24	The County will support the preservation of Stanislaus County's cultural legacy of historical and archeological resources for future generations.	All Build Alternatives could affect 4 potentially Historic Structures during project construction. Measures will be implemented to avoid and/or minimize any impact to historic resources.	No impact would occur.
Noise Element			
Goal 2	Protect the citizens of Stanislaus County from the harmful effects of exposure to excessive noise.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Noise impacts are analyzed in a Noise Study Report and will be considered during the alternative selection process.	No impact would occur.
Policy 2	It is the policy of Stanislaus County to develop and implement effective measures to abate and avoid excessive noise exposure in the unincorporated areas of the County by requiring that effective noise mitigation measures be incorporated into the design of new noise generating and new noise sensitive land uses.	Temporary construction-related and operational noise will be minimized through best management practices as needed.	No impact would occur.
Policy 3	It is the objective of Stanislaus County to protect areas of the County where noise-sensitive land uses are located.	The project would not adversely impact any noise-sensitive area.	No impact would occur.
Safety Element			
Goal 2	Minimize the effects of hazardous conditions that might cause loss of life and property.	The project would minimize traffic congestion on the existing SR-108 and the regional traffic network through the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases.

Stanislaus County General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy 8	Roads shall be maintained for the safety of travelers.	The project would minimize traffic congestion on the existing SR-108 and the regional traffic network through the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases.
Agricultural Element			
Policy 2.3	The County shall ensure all lands enrolled in the Williamson Act are devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land.	The project will result in acquisition of farmland under the Williamson Act. Measures will be implemented to avoid and/or minimize any impacts.	No impact would occur.
Policy 2.5	To the greatest extent possible, development shall be directed away from the County's most productive agricultural areas.	The project would avoid and/or minimize agricultural acquisition in the project design. Measures will be implemented to avoid and/or minimize any impacts on farmland conversion as discussed in **Section 3.1.3**.	No impact would occur.
Policy 2.7	Agricultural lands restricted to agricultural use shall not be assessed to pay for infrastructure needed to accommodate urban development.	The project is consistent with the objectives and constraints of Policy 2.7 that would allow the conversion of agricultural land to urban, non-agricultural, uses.	No impact would occur.
Policy 2.14	The County will continue to evaluate each project on a case-by-case basis to determine whether the conversion of agricultural land will have a significant adverse effect on the environment.	The project was approved by the County and is listed on the RTP. Measures will be implemented to avoid and/or minimize any impacts on farmland conversion as discussed in **Section 3.1.3**.	No impact would occur.
Policy 2.15	In order to mitigate the conversion of agricultural land resulting from a discretionary project requiring a General Plan or Community Plan amendment from 'Agriculture' to a residential land use designation, the County shall require the replacement of agricultural land at a 1:1 ratio with agricultural land of equal quality located in Stanislaus County	The project is not a residential development. Nevertheless, acquired agricultural land would be replaced at a 1:1 ratio.	No impact would occur.

Source: Stanislaus County, 1994

Table 3.1.1.2-2: Stanislaus Council of Government's 2014 Regional Transportation Plan Policies and Goals Relevant to the Proposed Project

Regional Transportation Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Goal 1 – Mobility & Accessibility	Improve the ability of people and goods to move between desired locations; and provide a variety of transportation choices.	The project would support efficient movement of people and goods throughout the region by providing a more direct and dependable truck route. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Public transportation will be supported.	Traffic congestion on existing roadways will continue to inhibit the efficient movement of people and goods. No bicycle or pedestrian improvements will be made.
Goal 2 – Social Equity	Promote and provide equitable opportunities to access transportation services for all populations and ensure all populations share in the benefits of transportation improvements and provide a range of transportation and housing choices.	The project would provide a freeway/expressway that is accessible to all populations and different modes of travel. Access to all parcels along the selected alternative route will be maintained. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Public transportation will be supported.	No roadway, bicycle, or pedestrian improvements will be made.
Goal 4- Sustainable Development Pattern	Provide a mix of land uses and compact development patterns; and direct development toward existing infrastructure, which will preserve agricultural land, open space, and natural resources.	Alternative 1A is located most closely to existing urban core and direct development toward existing infrastructure. Alternative 1B and 2A are also relatively close to the cities' spheres of influence and specific plan areas. Alternative 2B is located farthest from existing urban cores.	Condition of the existing roadway infrastructures will continue to worsen and be unable to support future growth. Growth in the County may be attracted to other areas where higher rates of growth are not identified in the RTP.
Goal 5 – Environmental Quality	Consider the environmental impacts when making transportation investments and minimize direct and indirect impacts on clear air and the environment.	The proposed project was designed to avoid and minimize any adverse impact to the natural environment. Measures will be implemented to avoid, minimize, or mitigate any impacts to the environment.	Air quality would continue to worsen as traffic volume increases.
Goal 6 – Health & Safety	Operate and maintain the transportation system to ensure public safety and security; and improve the health of residents by improving air quality and providing more transportation options.	The project would minimize traffic congestion on the existing SR-108 and the regional traffic network through the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes. The project would reduce hazardous air pollutants by reducing traffic congestion, and would have no substantial adverse impact on air quality. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	Traffic congestion will continue to worsen due to projected traffic volume increases and existing accident rates remain well above the statewide average for similar facilities. Air pollutant would not be reduced. No bicycle or pedestrian improvements will be made.

Goal 7 – System Preservation	Maintain the transportation system in a state of good repair, and protect the region's transportation investments by maximizing the use of existing facilities.	The proposed project would repair and/or maintain all existing roads in the regional transportation network that will be utilized or impacted by the proposed project.	No roadway improvements would occur.

Source: StanCOG, 2014

Table 3.1.1.2-3: City of Modesto Final Urban Area General Plan Policies and Goals Relevant to the Proposed Project

City of Modesto General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Overall Goals			
Goal 2	Transportation and Circulation systems that adequately provide for intra-city and regional transportation needs should be provided. Alternatives to the drive-alone auto mode, such as light rail, mass transit, ride sharing, bicycling, trail systems, and telecommuting should be encouraged to reduce traffic congestion and enhance air quality. The City's transportation planning should be coordinated with regional transportation planning efforts, wherever possible.	The project would minimize traffic congestion on the existing SR-108 and the regional traffic network through the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	Traffic congestion will continue to worsen due to projected traffic volume increases, and no additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Community Growth Policies			
1 b	Provide Timely Infrastructure.	The proposed project would provide infrastructure that supports the projected increase in traffic volumes and efficient movement of goods.	Traffic congestion will continue to worsen due to projected traffic volume increases, and traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods.

Source: City of Modesto, 2008

Table 3.1.1.2-4: City of Riverbank General Plan Policies and Goals Relevant to the Proposed Project

City of Riverbank General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Circulation			
Policy CIRC-3.7	The City will coordinate with all agencies involved in planning for a future east-west expressway through northern Stanislaus County to ensure that transit service is provided along the route, including potentially the use of HOV/transit only lanes during peak hours.	The project would reduce average daily traffic volumes and current traffic congestion and accommodate anticipated future traffic on the existing SR-108 and the surrounding regional transportation network in northern Stanislaus County and the Cities of Modesto, Riverbank, and Oakdale by providing a more direct and dependable truck route.	No additional transportation facility would be provided.
Community Character and Design			
Goal DESIGN-2.2	The City will require separate travel areas for motorized vehicles, bicycles, and pedestrian traffic along busy streets.	The project would accommodate Class 3 bike routes along Segments 2 and 3, and preserve space along Segment 1 for future bikeways.	No additional bicycle improvements will be made to the existing roadway system within the project area.
Goal DESIGN-2.3	The City will require appropriate signage and traffic control devices to safely accommodate pedestrian, bicyclists, and vehicular traffic.	Appropriate signage and traffic control devices will be provided along the project alignment to safely accommodate pedestrian, bicycle, and vehicle traffic.	No project will be built and no signage or traffic control devices will be provided.
Conservation and Open Space			
Goal CIRC-1	Riverbank's circulation network provides convenience and choice among all modes of transportation.	The North County Corridor would be a freeway/expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along crossroads in urban settings.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Goal CONS-2	Minimize negative impacts to archaeological resources.	The project would not adversely impact sensitive archaeological resources because none are present in the project area.	No impact would occur.
Policy CONS-2.1	Approved projects, plans, and subdivision requests shall incorporate all available measures, with a preference for avoidance, to reduce or eliminate impacts to known and unknown archaeological and paleontological resources.	The project would disturb sediments within high potential to contain paleontological resources. All Build Alternatives could potentially affect 4 potentially Historic Structures during construction. Measures will be implemented to avoid, minimize, and/or mitigate for any potential impacts. The project would not adversely impact sensitive archaeological resources because none are present in the project area.	No impact would occur.

City of Riverbank General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy CONS-2.5	As guided by State law, in the event of the inadvertent discovery of previously unknown archaeological sites during excavation or construction, all construction affecting the site shall cease and the contractor shall contact the appropriate City agency. If Native American human remains are discovered, the City shall work with local Native American representatives to ensure that the remains and associated artifacts are treated in a respectful and dignified manner.	No sensitive archaeological resources are present within the project area.	No impact would occur.
Policy CONS-4.2	Approved projects, plans, and subdivisions shall provide for collection, conveyance, treatment, detention, and other stormwater management measures in a way that does not decrease water quality or alter hydrology in the Stanislaus River or associated groundwater recharge areas.	The project would not have adverse impact on water quality or hydrology. Best management practices will be followed during project construction.	No impact would occur.
Policy CONS-6.3	Approved projects, plans, and subdivisions in new growth areas shall incorporate natural drainage system design that emphasizes infiltration and decentralized treatment (rather than traditional piped approaches that quickly convey stormwater to large centralized treatment facilities).	The project would provide drainage swales along the roadway.	No impact would occur.
Safety			
Goal SAFE-2	Provide adequate access for emergency response.	The project would reduce average daily traffic volumes and current traffic congestion and accommodate future traffic on existing SR-108 and the surrounding regional transportation network, and therefore improve response time of emergency services.	No change would occur.
Policy SAFE-2.1	The City will require development and maintenance of a road system that provides adequate access for emergency equipment.	The project would provide adequate access for emergency equipment.	No change would occur.
Noise			
Goal Noise-1	Create land use patterns and transportation networks that minimize noise problems.	The proposed project was designed to avoid and minimize any adverse impact to noise. Noise impacts are analyzed in a Noise Study Report and will be considered during alternative selection. Measures will be implemented to reduce any impact.	No impact would occur.

City of Riverbank General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Goal Noise-2	Minimize noise impacts associated with development projects and other land use change.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Noise impacts are analyzed in a Noise Study Report and will be considered during the alternative selection. Measures will be implemented to avoid, minimize, and/or mitigate any impacts.	No impact would occur.
Policy Noise-2.1	Development projects and roadway improvement projects that increase traffic noise levels shall be mitigated to achieve acceptable levels as measured at outdoor activity areas and interior spaces of existing and planned noise-sensitive land uses.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Noise impacts are analyzed in a Noise Study Report and will be considered during alternative selection. Measures will be implemented to avoid, minimize, and/or mitigate any impacts.	No impact would occur.
Policy Noise-2.3	The City shall require all feasible noise mitigation to reduce construction and other short-term noise and vibration impacts as a condition of approval for development projects by applying the performance standards outlined in Table N-3. The total noise level resulting from new sources and ambient noise shall not exceed the standards in Table N-3, as measured at outdoor activity areas of any affected noise sensitive land use.	Temporary construction-related noise will be avoided, minimized, and/or mitigated through best management practices. The total noise level resulting from the project will not exceed the applicable standard.	No impact would occur.
Public Services and Facilities			
Goal PUBLIC-1	Public service and infrastructure provision to meet or exceed level of service standards consistent with other community goals.	The proposed project would provide infrastructure that supports the projected increase in traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases.
Policy PUBLIC-1	The City will coordinate the planning and construction of capital improvements with the timing of urban development within the Planning Area.	The proposed project would provide infrastructure that supports the projected increase in traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases.

Source: City of Riverbank, 2009

Table 3.1.1.2-5: Oakdale 2030 General Plan Policies and Goals Relevant to the Proposed Project

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Land Use			
Policy LU-5.3	**Access.** Provide access to and from the industrial area that allows for the safe and efficient movement of goods and people, and supports alternative forms of mobility.	The project would support the efficient movement of goods and services throughout the region by providing a more direct and dependable truck route, increasing the average operating speeds of all vehicles, and reducing the number of areas of conflict between motorized traffic and non-motorized means of travel.	Traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods.
Policy LU-5.4	**North County Corridor**. Actively explore opportunities to connect the City's industrial area to the future NCC, as well as to adjacent rail facilities.	Alternatives 1A, 2A, and 1B would provide connection to the City's industrial area. Alternative 2B would not be located adjacent to the City's industrial area.	No connection would occur.
Policy LU-5.5	Infrastructure & Services. Ensure that adequate infrastructure and services are available and/or programmed to meet the needs of the City's existing and future industries.	The proposed project would provide infrastructure that supports the projected increase in traffic volumes and efficient movement of goods.	Traffic congestion will continue to worsen due to projected traffic volume increases, and traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods.
Mobility			
Goal M-1	Expanded multimodal transportation choices that improve the ability to travel efficiently and safely throughout the city and region.	The North County Corridor would be a freeway/expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Public transportation will be supported.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Policy M-1.1	**Multimodal Options.** Establish an interconnected transportation network that offers safe and convenient mobility options including adequate streets, transit services, pedestrian walkways, bike routes, equestrian facilities, commercial rail connections, and aviation services.	The North County Corridor would be a freeway/expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Public transportation will be supported.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Policy M-1.3	**Complete Streets.** Design and construct both new and reconstructed streets with adequate rights-of way and facilities to support the full range of locally available travel modes, compliant with the California Complete Streets Act (CCSA).	The project would provide vehicular, bicycle, and pedestrian access that is in compliance with the CCSA.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy M-1.6	**Consider all Users of Transportation System.** Use multi-modal evaluation methods to ensure that projects do not result in worsening facilities or service for transit, bicyclists, and pedestrians.	The North County Corridor would be a freeway/expressway. Class 3 bike routes would be accommodated along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Public transportation will be supported.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Goal M-2	An interconnected roadway/highway system that ensures the safe and efficient movement of people, goods, and services on multiple routes by multiple modes.	The project would support the efficient movement of people, goods, and services throughout the region; increase the average operating speeds of all vehicles; and reduce the numbers of areas of conflict between motorized traffic and non-motorized means of travel in the communities of Modesto, Riverbank and Oakdale by reducing average daily traffic volumes.	Traffic congestion will continue to worsen due to projected traffic volume increases, and existing accident rates remain well above the statewide average for similar facilities.
Policy M-2.1	**Roadway Plan.** Plan, design, and regulate roadways in accordance with the General Plan Circulation Diagram and City's Roadway Classifications.	The project is consistent with all development standards set forth by these cities.	No development would occur.
Policy M-2.3	**System Completion.** Ensure completion of the roadway system through the elimination of substandard width segments and construction of missing links.	The roadway system would be complete and meet all design standards.	No development would occur, and therefore no system completion.
Policy M-2.4	**North County Corridor.** Continue participation in the planning, preservation of right-of-way, and ultimate implementation of the North County Corridor.	The project would implement the North County Corridor.	No North County Corridor would be implemented.
Policy M-2.10	**Timing of Improvements.** Provide identified transportation improvements in a timely manner to meet the needs of the community.	The proposed project would provide transportation improvements that support the projected increase in traffic volumes and efficient movement of goods.	Traffic congestion will continue to worsen due to projected traffic volume increases.
Policy M-2.14	**Traffic Control Strategies.** Promote signal coordination along expressways and major arterials to effectively serve large traffic demands, and continue to work with Caltrans to implement traffic control strategies that will improve the level of service on the City's street system.	Transportation system management strategies such as intersection and signal lighting, signal timing optimization, turn lanes, and pavement striping, will be incorporated into the project as appropriate.	Traffic congestion will continue to worsen due to projected traffic volume increases.
Policy M-2.15	**Intelligent Transportation Systems.** Evaluate and implement cost effective intelligent transportation systems (such as signal coordination, centralized traffic control, and real-time travel information) to manage traffic flows.	ITS such as signal coordination and traffic cameras will be incorporated into the project final design.	Traffic congestion will continue to worsen due to projected traffic volume increases.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Goal M-3	Enhanced bicycle, pedestrian and equestrian facilities that are accessible, safe, and convenient.	The North County Corridor would accommodate Class 3 bike routes along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Policy M-3.1	**Bicycle and Pedestrian Master Plan.** Implement and maintain the City's Bicycle and Pedestrian Master Plan to guide the systematic planning, design, funding and construction of new and enhanced bicycle and pedestrian facilities.	The North County Corridor would accommodate Class 3 bike routes along Segments 2 and 3. Pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3.	No additional bicycle or pedestrian improvements will be made to the existing roadway system within the project area.
Policy M-4.5	**Rights-of-Way Preservation.** Design expressways, arterials and major collectors to include adequate rights-of-way to accommodate bus stops and/or pull-out lanes, where appropriate.	The project would incorporate designs to accommodate bus operation where appropriate.	No change would occur.
Policy M-5.1	**Efficient Goods Movement.** Support infrastructure improvements and the use of emerging technologies that facilitate the timely movement of trade, including facilities for the efficient intermodal transfer of goods between truck, rail, and air transportation modes.	The project would support the efficient movement of goods and services throughout the region by providing a more direct and dependable truck route, increasing the average operating speeds of all vehicles, and reducing the number of areas of conflict between motorized and non-motorized means of travel.	Traffic congestion on existing truck routes will continue to inhibit the efficient movement of goods.
Policy M-5.2	**Truck Routes.** Designate truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses. Ensure that adequate pavement depth, lane widths, bridge capacities, and turning radii are maintained on truck routes.	The project would accommodate truck traffic and direct trucks away from residential neighborhoods.	Trucks would continue to pass through residential neighborhoods.
Policy M-5.3	**North County Corridor.** Work cooperatively with Caltrans and the Stanislaus Council of Governments to plan and fund connections between Oakdale and the future North County Corridor, in particular to the City's industrial area.	Alternatives 1A, 2A, and 1B would provide connection to the City's industrial area. Alternative 2B would not be located adjacent to the City's industrial area.	No connection would occur.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy M-7.4	**Multi-Jurisdictional Corridors.** Work with adjacent jurisdictions to identify transportation corridors that should be linked across jurisdictional boundaries to ensure that sufficient right-of-way is preserved and that operational and improvement standards are consistent.	North County Corridor Transportation Expressway Authority (NCCTEA) is represented by California Department of Transportation (Caltrans), Stanislaus County, and the cities of Oakdale, Riverbank and Modesto. The project would provide access to the cities of Modesto, Riverbank, and Oakdale, as well as unincorporated areas in northern Stanislaus County. Operational and improvement standards will be consistent throughout the corridor.	No corridor would be implemented.
Policy M-7.5	**Multi-Jurisdictional Plans.** Coordinate transportation and land use plans and policies with local and regional planning agencies. Incorporate the Regional Transportation Plan and the Stanislaus County Congestion Management Program as part of the City's transportation system.	The project is in conformance with the Regional Transportation Plan and the Stanislaus County Congestion Management Program.	No change would occur.
Natural Resources			
Goal NR-1	Conservation and enhancement of Oakdale's open spaces and significant biological resources.	The proposed project was designed to avoid and minimize any adverse impacts to biological resources. Measures will be implemented to avoid, minimize, and/or mitigate any impacts wherever feasible. These measures will be discussed in the Natural Environment Study (NES) prepared for this project.	No impact would occur.
Policy NR-1.1	**Open Space.** Ensure the conservation of lands designated for open space within the City.	Conversion of open space is discussed in **Section 3.1.2** and **3.1.3.**	No impact would occur.
Policy NR-1.4	**Preservation.** Preserve unique and valuable natural resources and associated habitats, including special-status species, in coordination with federal, state, and local resource agencies.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse impacts to natural resources and associated habitats. Additionally, meetings with resource and permitting agencies are ongoing, including U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. Measures will be implemented to avoid and/or minimize any impact wherever feasible. These measures will be discussed in the NES and BA prepared for this project.	No impact would occur.
Policy NR-1.5	**Resources Assessment.** Require discretionary development proposals that could potentially impact natural resources to conduct a biological resources assessment to ensure that project-related impacts are considered and mitigated consistent with local, state and federal regulations.	A NES and a BA will be prepared for the project to assess potential impacts to natural and biological resources.	No impact would occur.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy NR-1.6	**Avoidance.** Ensure new development projects avoid, to the extent feasible, significant biological resources (e.g. areas of rare, threatened, or endangered species).	The proposed project was designed to avoid, minimize, and/or mitigate any adverse impacts to biological resources. Measures will be implemented to avoid and/or minimize any impacts wherever feasible. These measures will be discussed in the NES and BA prepared for this project.	No impact would occur.
Goal NR-3	Improved air quality and reduced greenhouse gas emissions in the City and region.	The project would reduce greenhouse gas emissions and improve air quality by reducing existing and future traffic congestion on the existing SR-108 and the surrounding regional transportation network.	Greenhouse gas emission would increase as traffic congestion on existing SR-108 continues to worsen.
Policy NR-3.1	**Regional Coordination.** Participate in regional planning efforts including coordination with the San Joaquin Valley Air Pollution Control District, Stanislaus Council of Governments, and other jurisdictions on programs to reduce air quality impacts and attain state and federal air quality standards.	Temporary construction-related air quality impacts would occur along the North County Corridor. Measures will be implemented to avoid, minimize, and/or mitigate any impacts wherever feasible. The project would not have a substantial adverse impact on air quality.	Air quality would continue to worsen as traffic congestion on existing SR-108 continues to worsen.
Policy NR-3.3	**Construction Emissions.** Require new development projects to incorporate feasible measures that reduce emissions from construction, grading, excavation, and demolition activities to avoid, minimize, and/or offset their impacts consistent with San Joaquin Valley Air Pollution Control District requirements.	The project would have temporary construction-related air quality impacts along the North County Corridor. Measures will be implemented to avoid, minimize, and/or mitigate any impacts wherever feasible.	No impact would occur.
Policy NR-3.4	**Operational Emissions.** Require new development projects to incorporate feasible measures that reduce operational emissions through project and site design and use of best management practices to avoid, minimize, and/or offset their impacts consistent with San Joaquin Valley Air Pollution Control District requirements.	The proposed project was designed to avoid and minimize any adverse impacts to air quality. Measures will be implemented to avoid, minimize, and/or mitigate any impacts to air quality wherever feasible. Air quality impacts are discussed in detail in the Air Quality Report.	No impact would occur.
Policy NR-3.5	**SJVAPCD Consultation.** Require consultation and coordination with the San Joaquin Valley Air Pollution Control District for any projects that may have a potential health risk impact or may expose the public to hazardous air pollutants, and on compliance with adopted rules and regulations.	The project will comply with rules and regulations adopted by the SJVAPCD. Caltrans will continue to consult and coordinate with the SJVAPCD.	No impact would occur.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy NR-3.6	**Toxic Air Pollutants.** Locate uses, facilities and operations that may produce toxic or hazardous air pollutants (e.g., industrial uses, highways) an adequate distance from sensitive receptors (e.g., housing and schools), consistent with California Air Resources Board recommendations.	The project would be located an adequate distance from sensitive receptors, consistent with all California Air Resource Board Recommendations.	No impact would occur.
Policy NR-4.3	**Natural Open Space Areas.** Preserve areas that provide important groundwater recharge, stormwater management, and water quality benefits such as undeveloped open spaces, natural habitat, riparian corridors, wetlands, and other drainage areas.	The project would provide drainage swales along the roadway. Measures will be implemented to avoid, minimize, and/or mitigate any impacts wherever feasible. These measures will be discussed in the NES and BA prepared for this project.	No impact would occur.
Policy NR-4.4	**National Pollution Discharge Elimination System.** Regulate construction and operational activities to incorporate stormwater protection measures and best management practices in accordance with the City's National Pollution Discharge Elimination System (NPDES) permit.	The project would not have adverse impacts on water quality or hydrology. The project will comply with the City's NPDES permit, and best management practices will be followed during project construction.	No impact would occur.
Policy NR-7.1	**Preservation.** Protect and preserve significant paleontological, archaeological, and historic resources, including those recognized at the national, state, and local levels.	The project would disturb sediments within areas with high potential to contain paleontological resources. Four properties within the project's Primary Impact Area are considered historical resources. Measures will be implemented to avoid and, minimize, and or mitigate any potential impacts to paleontological resources, and no historic resources will be impacted by the project alternatives. Measures for paleontological resources will be outlined in a Paleontological Mitigation Plan (PMP) prepared for the proposed project. No sensitive archaeological resources are present within the project area.	No impact would occur.
Policy NR-7.5	**Consultation.** Consult with the appropriate organizations and individuals early in the development process (e.g., Information Centers of the California Historical Resources Information System, Native American Heritage Commission, and Native American groups and individuals) to minimize potential impacts to cultural resources.	Cultural resources consultation was conducted as part of the project. The Native American Heritage Commission (NAHC) was contacted via letter on February 26, 2014, and on March 20, 2014, letters were sent to the Native American contacts on the list provided by the NAHC. Additionally, record searches of the project area were conducted in 2008 and 2012.	No impact would occur.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Policy NR-7.6	**Resource Assessment.** Require discretionary development proposals that could potentially impact cultural resources to conduct a cultural resources survey prior to approval of new development, rehabilitation efforts, and remodels to ensure that potential sites are identified for avoidance or special treatment.	A mixed survey strategy was utilized to survey the primary project impact area and consisted of a pedestrian field survey coverage and Multidimensional Photogrammetry survey coverage.	No impact would occur.
Policy NR-7.9	**Archaeological and Paleontological Resources.** Ensure compliance with protocols that protect or mitigate impacts to archaeological and paleontological resources.	The project would be in compliance with protocols to avoid, minimize, and/or mitigate any impacts associated with archaeological and paleontological resources. No sensitive archaeological resources are present within the project area. A PMP will be prepared to discuss measures to reduce impacts to paleontological resources.	No impact would occur.
Noise			
Goal N-1	Minimal exposure of residents and businesses to harmful noise and vibrations.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Noise impacts are analyzed in a Noise Study Report and will be considered during alternative selection. Measures will be implemented to avoid, minimize, and/or mitigate any impacts.	No impact would occur.
Policy N-1.8	**Mitigation Measures along Roadways.** Include noise mitigation measures in the design of all future streets and highways, and improvements along existing streets and highways. Measures should emphasize the establishment of natural buffers or use of setbacks between roadways and adjoining noise sensitive uses when feasible.	The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Noise impacts are analyzed in a Noise Study Report and will be considered during alternative selection. Measures will be implemented to avoid, minimize, and/or mitigate any impacts.	No impact would occur.
Policy N-1.11	**Construction Noise.** Minimize construction-related noise and vibration by limiting construction activities within 500 feet of noise-sensitive uses to 7:00 A.M. to 6:00 P.M. on weekdays, 8:00 A.M. to 5:00 P.M. on Saturdays, and no construction on Sundays and holidays unless permission for the latter has been granted by the City.	Temporary construction-related noise impacts will be avoided, minimized, and/or mitigated though best management practices, and will comply with all local noise ordinances.	No impact would occur.

City of Oakdale General Plan	Policy/Goal Content	Build Alternatives 1A, 1B, 2A, 2B	No-Build
Noise N-1.12	**Vibration Standards.** Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria as shown in Table N-6 (Groundborne Vibration Impact Criteria for General Assessment).	Temporary construction-related vibration will be minimized though best management practices. Temporary construction-related vibration impacts will be avoided, minimized, and/or mitigated through best management practices, and will comply with the applicable criteria.	No impact would occur.
Noise N-1.13	**High Noise-Generating Uses.** Locate new industrial projects or other high noise-generating uses away from noise-sensitive land uses and minimize excessive noise through project design features that include noise control, as well as the use of landscaped buffers.	The project is a freeway/expressway and would not include high noise-generating uses. The proposed project was designed to avoid, minimize, and/or mitigate any adverse noise impacts. Temporary construction-related noise will be minimized through best management practices. Measures will be implemented to avoid, minimize, and/or mitigate any impacts.	No impact would occur.

Source: City of Oakdale, 2013a

Temporary Construction Impacts

No temporary impacts to General Plans and Policies are anticipated as a result of implementation of the project. No substantial adverse short-term noise impacts from construction are anticipated because construction would be done in accordance with Caltrans Standard Specifications and applicable local noise standards, which would avoid and minimize noise impacts during construction. Construction noise would be short term, intermittent, and overshadowed by local traffic noise. See Section 3.2.6, Noise, for details.

No-Build Alternative

Under the No-Build Alternative conditions, the existing SR-108 would remain part of the Caltrans on-system roadway network. Improvements to the existing SR-108 would be limited to intersection improvements, traffic signal installation, limited widening, and maintenance that are planned whether the project is built or not. The No-Build Alternative would result in continued deterioration of roadway level of service, increased traffic congestion, reduced ability to move goods and services, and increased impacts to air quality and noise in the surrounding communities, even with the planned improvements. The No-Build Alternative does not meet the purpose and need of the project and is not consistent with the goals and policies of the general plans of the county or affected cities.

Avoidance, Minimization, and Mitigation Measures

The project has been designed to be consistent with state, regional, and local plans and programs to the extent feasible. During final design, effort would be made to further avoid, minimize, and/or mitigate construction and operational impacts to existing and planned land uses, as more fully discussed in the tables above.

3.1.1.3 Parks and Recreational Facilities

Affected Environment

A Community Impact Assessment (CIA) for the North County Corridor New SR-108 Project was completed in February 2016, and it is summarized here. There are many parks, recreation areas, and open spaces within the vicinity of the project area. As shown in Figure 3.1.1.3-1, in Appendix A, parks and open spaces within the vicinity of the project area include Wesson Ranch Park, Coffee-Clarantina Park, Beyer Park, Stockard Coffee Park, California Avenue Park, Santa Fe Park, Brennan Park, Kerr Park, Valley Oak Recreational Area, Davis Sports Complex, Castleberg Park, and Orange Blossom Recreational Area. The following publicly owned parks are located within half a mile of the project area: Davis Sports Complex, Castleberg Park, and Stockard Coffee Park. However, no publicly owned and operated parks are within the project area.

Rainbow Fields is a privately owned sports complex including 6 fields (4 with lights for nighttime use, 2 without lights), a clubhouse, snack bar, and an outdoor playground. Rainbow Fields is located at the corner of Claus Road and Claribel Road and would be affected by the project.

As there are no publicly owned parks or recreation areas within the project area, there is no Section 4(f) use of parks or recreation areas. Discussion of the three publically owned parks within half a mile of the project area is contained within Appendix C for Section 4(f) Finding.

Environmental Consequences

Build Alternatives 1A, 2A, 1B and 2B

All Build Alternatives would have a permanent impact of 1.5 acres on Rainbow Fields. Although potential frontage acquisitions may be required from the parcel, the project alternatives would not affect the recreational uses of the parcel. Impacts to Rainbow Fields are due to right-of-way needs for the roadway improvements. No permanent impacts would result to the three publicly owned parks within the half mile buffer of the project area.

Temporary Construction Impacts

Implementation of the project would temporarily impact Rainbow Fields during construction, in which access to the privately owned sports complex could be reduced or delayed to allow for construction of the project. Construction-related vehicle access and staging of construction materials would occur within disturbed or developed areas along the length of the project site, including within the acquired portion of Rainbow Fields frontage, thereby affecting access during construction.

No-Build Alternative

Under the No-Build Alternative, because no construction would occur, no impacts of any kind would occur to parks and recreational facilities in the project area.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to Rainbow Fields will be avoided and/or minimized to the greatest extent possible, through careful design, ensuring the minimum acreage required to accommodate the project is acquired. All right-of-way impacts to Rainbow Fields will be compensated for appropriately according to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

3.1.2 Growth

Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the NEPA of 1969, requires evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations 1508.8) refer to these consequences as “indirect impacts.” Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

CEQA also requires the analysis of a project's potential to induce growth. The CEQA guidelines (Section 15126.2[d]) require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

Affected Environment

Growth was analyzed as part of the Community Impact Assessment for the project (February 2016). Expecting continued population increase in the future 50 years, Stanislaus County has adopted strategies for economic development, job/housing balance, infrastructure system and public services expansion, resource protection, cooperation between agencies, and public safety in the Stanislaus County General Plan (1994). Population growth is largely concentrated in the incorporated city areas, including the cities of Modesto, Riverbank, and Oakdale. The county's population had increased 15.09 percent from 2000 to 2010, much higher than the California population average increase of 9.99 percent. The rapid population expansion in recent years is largely related to development in the Bay Area. Roughly one-fifth of the county's residents commute daily to jobs in the Bay Area.

Population forecasts published by the California Department of Finance through 2060 suggest that population growth and its associated development will continue in the study area and surrounding region. Table 3.1.2.-1 summarizes the population projection for Stanislaus County. Stanislaus County population is expected to increase by 76.3 percent over the 45-year period from 2015 to 2060. In comparison, the general population for California is forecasted to grow 35.8 percent.

Table 3.1.2.-1: Population Projection

Year	Stanislaus County resident population numbers
2015	540,794
2020	571,139
2025	605,040
2030	639,754
2035	674,019
2040	707,554
2045	740,090
2050	772,081
2055	804,200
2060	836,635

Source: California Department of Finance, 2013; StanCOG 2016

Cities in the county have proposed or are considering significant expansion of their spheres of influence to accommodate anticipated growth. Most development would not be approved by the County unless first approved by the city within whose sphere of influence it lies. This policy aims to discourage developments that are inconsistent with the land use designation from a specific city's general plan or exceed the existing service level of a sanitary sewer district, domestic water district, or community service district that provides service to the unincorporated area.

First-Cut Screening

A first-cut screening for growth potential was conducted using the following questions (see flowchart in Figures 3.1.2-1 and 3.1.2-2):

Question 1: Does the project have the potential to change accessibility?

Answer 1: Yes. The project proposes roadway widening and construction of new roadway in urban fringe areas, and it has the potential to change accessibility. The Build Alternatives are intended to provide many access-related beneficial effects such as reduced congestion, increased traffic safety and more efficient movement of people and goods.

All Build Alternatives would result in a redistribution of traffic volumes and an overall reduction in traffic volumes on major east-west roadways such as the existing SR-108, Patterson Road, and Claratina Avenue, as some of that traffic is shifted to the new North County Corridor, improving travel times. Additionally, the overall amount of daily travel (reflected in the vehicle miles of travel measures) will be slightly less under with-project conditions when compared to no-build conditions for all analysis years, which will reduce the cost of travel. Any project alternative would have positive region-wide impacts in reducing travel times and delays caused by congestion.

Additionally, while transportation projects generally do not result in the creation of significant permanent new jobs within a community, they may affect employment in positive or negative ways. Construction of the proposed project may directly create new jobs in the local community and larger region. Purchases by construction team members may generate additional sales revenue in the community. Businesses and people relocated by the project would likely be moved to nearby communities, and the characteristics of local employment, labor force, and customer base would not change significantly.

Further, the North County Corridor would improve the movement of people, goods, and recreation by providing a new east-west transportation facility. Once the project is completed, interregional commuters and truck traffic would be directed away from local streets. Businesses along the future North County Corridor would benefit from increased visibility and improved circulation. Businesses farther from the North County Corridor would have decreased exposure due to smaller traffic volumes. Implementation of the North County Corridor would result in improved accessibility, higher level of service along local streets, reduced queuing (traffic backups), and improved air quality. As a result, efficiency in local communities would increase, creating a better business environment.

Question 2 and 3: Consider factors such as project type, project location, and growth pressure. Is the project-related growth reasonably foreseeable?

Answer 2: Yes. The project could indirectly affect land use patterns, population density, and/or growth rate in the study area. The rate of population growth for 2015-2020 is 4.63 percent in Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). The rate of economic growth for 2015-2020 in the form of expected job growth is 7.4 percent for Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). The project would accommodate the forecasted population growth and economic growth by continuing to provide access to the region without significant delay. Due to the project's accommodation of this population and economic growth, growth related to the project is reasonably foreseeable.

Question 3: If there is a project-related growth, could it impact resources of concern?

Answer 3: Maybe. Land use in the project area consists of urbanized developments, agricultural lands, and industrial areas. Resources of concern within the project area include wetlands, vernal pools, prime farmland, and potentially threatened/endangered species. It was determined that further analysis was needed.

Figure 3.1.2-1: First-Cut Screening Process

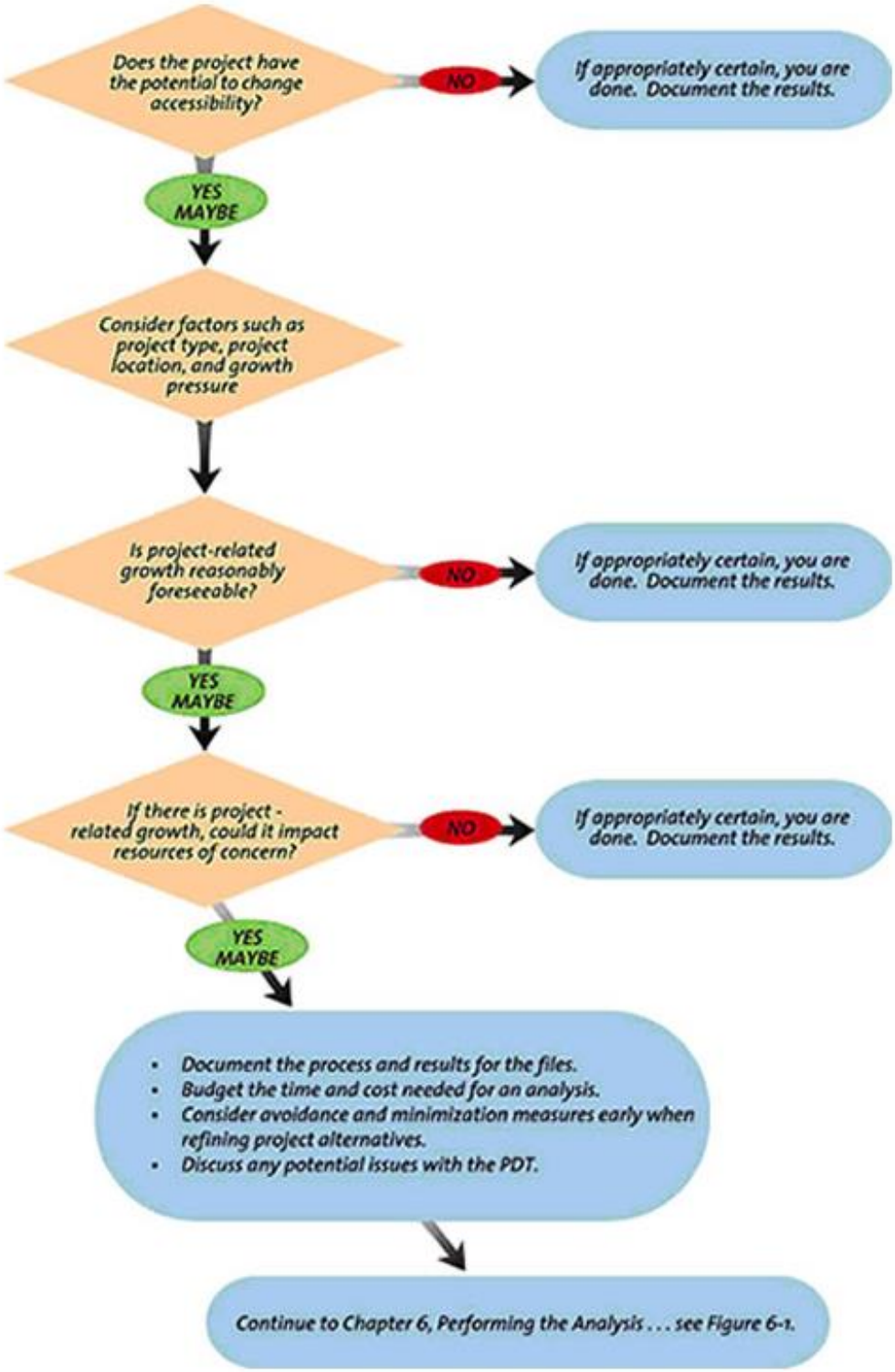
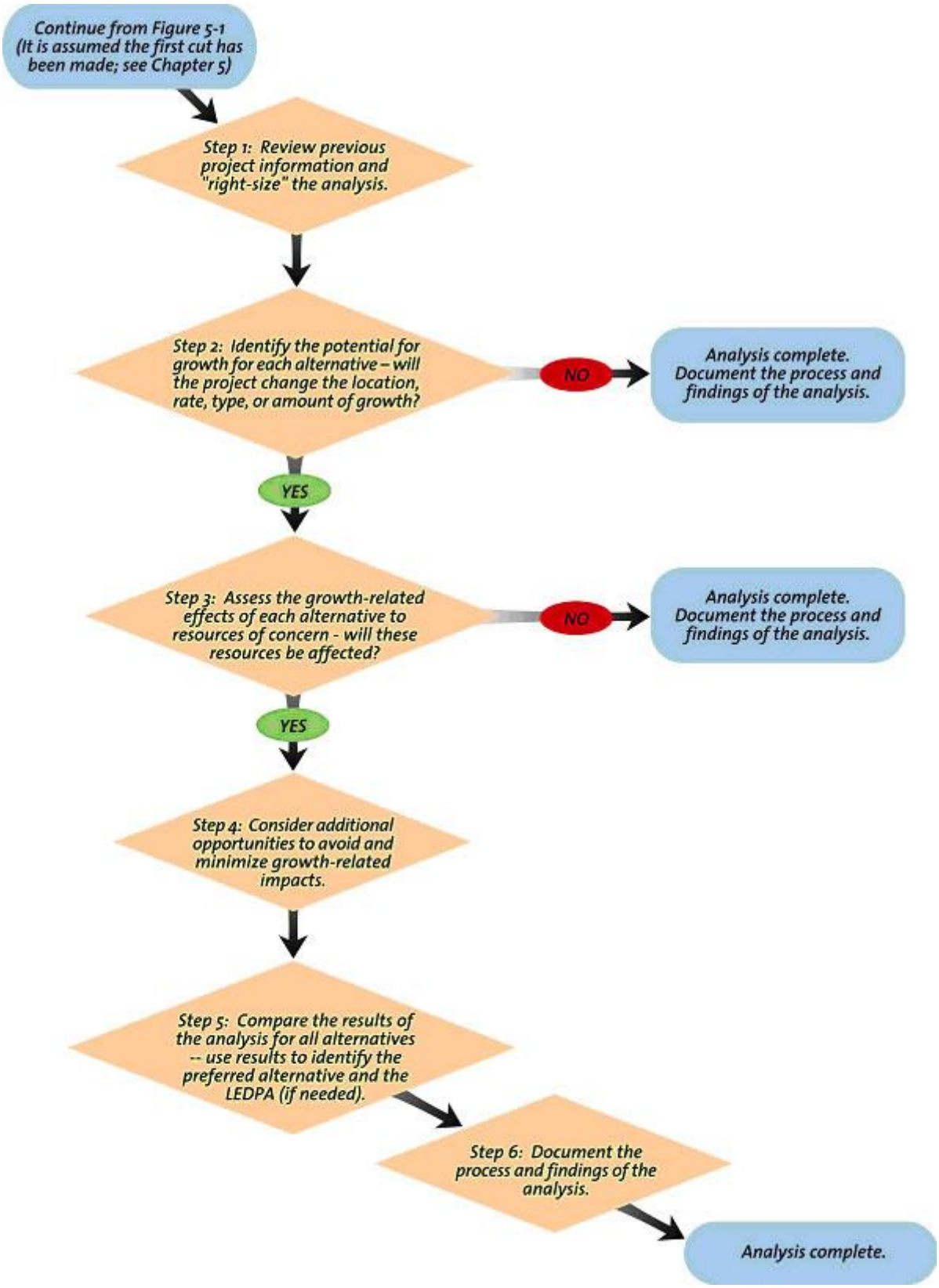


Figure 3.1.2-2: Growth–related Impact Analysis



Environmental Consequences

Growth-Related Effect Analysis

A growth-related effect analysis is used to determine whether a transportation project could contribute to a growth-related effect that would affect resources of concern. As shown in Figure 3.1.2-2, the following steps serve as guidelines for identifying and assessing growth-related effects of a proposed transportation project and are used in the Environmental Consequences section below:

- Step 1: Review Previous Project Information and "Right-size" the Analysis
- Step 2: Identify the Potential for Growth for Each Alternative
- Step 3: Assess the Growth-related Effects of each Alternative to Resources of Concern
- Step 4: Consider Additional Opportunities to Avoid and Minimize Growth-related Impacts
- Step 5: Compare the Results of the Analysis for All Alternatives
- Step 6: Document the Process and Findings of the Analysis

Build Alternatives 1A, 2A, 1B and 2B

Step 1: Right-Size the Analysis

The first-cut screening suggests that growth related to the project is reasonably foreseeable, and this growth may affect the resources of concern in the region.

Both quantitative and qualitative data sources were gathered to analyze growth-related project impacts. Quantitative data included U.S. census data on the county's and cities' existing populations, growth forecast from the California Department of Finance, and technical studies on the resources of concern for the proposed project. Qualitative information included the project area's county and cities general plan goals, specific plan development goals, and future land use plans.

The existing roadway network in the study area was not planned to accommodate the amount of growth that has occurred in recent years, nor growth projected to occur in the region in the future. As a result, traffic congestion has become an increasing problem on some local roadways. To resolve the issue, the North County Corridor was proposed by regional authorities and was included in Stanislaus County General Plan, Stanislaus County Regional Transportation Plan, and the cities of Modesto, Riverbank and Oakdale general plans.

Step 2: Potential Growth

The *Regional Growth Forecast 2014-2040* in the Regional Transportation Plan indicates that the population in Stanislaus County will increase by 48.6 percent between 2010 and 2040, regardless of whether the 2018 Regional Transportation Plan is implemented. The North County Corridor is one of the projects under the 2018 Regional Transportation Plan that is designed and intended to accommodate anticipated growth up to 2040. Goal 4 of the Regional Transportation Plan states that the plan aims to provide a mix of land uses and compact development patterns and direct development toward existing infrastructure, which will preserve agricultural land, open space, and natural resources.

The purpose of the North County Corridor is to address existing congestion and route continuity concerns. The proposed improvements are needed to keep pace with developing conditions and prevent future deterioration in levels of service. The proposed project also aims to improve access within and between existing and future communities, including those of Modesto, Riverbank, Oakdale, and the unincorporated area of Stanislaus County.

The project study area encompasses large areas of land identified to have high growth potential. These areas include the cities of Modesto, Riverbank, Oakdale, and each city's sphere of influence. Claribel Road between Tully Road and Claus Road is the boundary of the Modesto and Riverbank spheres of influence. Land use along this road consists of urban development and agricultural land. This area is considered urban fringe and has high growth potential. Likewise, the Oakdale sphere of influence is another area where future growth would occur.

The City of Oakdale has designated future growth areas. All alternatives of the proposed project were designed to accommodate and support future growth in these areas. Development in the following areas would be likely to occur regardless of which alternative is chosen:

- South Oakdale Industrial Specific Plan Area – The entire South Oakdale Industrial Specific Plan area is located within the existing City limits and is zoned for Light Industrial and Limited Industrial land uses.

- Crane Crossing Specific Plan Area – A portion of this Specific Plan has been annexed into the City of Oakdale. The area noted as the "South Area" in the Specific Plan is within existing City limits.

- Sierra Point Specific Plan Area – This Specific Plan has been adopted by the City of Oakdale, and is a potential future annexation area.

- Future Specific Plan Area 5 – This Specific Plan Area contains approximately 707 acres and is planned for a variety of land uses, including low, medium, and high density residential, commercial, parks, and an elementary school. This plan is important to provide commercial opportunities and circulation connections to the NCC.

Alternative 1A

Alternative 1A shares the same alignment with the other three alternatives in Segment 1. No unplanned growth is anticipated within Segment 1. In Segment 2, this alternative goes through land just east of the City of Riverbank's sphere of influence and enters the City of Oakdale's future sphere of influence at Patterson Road. This alignment is next to the southern edge of South Oakdale Industrial Specific Plan Area and the Future Specific Plan Area 5. This alignment is about 1 mile south of the Crane Crossing Specific Plan Area. In Segment 3, Alternative 1A passes through the Sierra Point Specific Plan Area. This segment of Alternative 1A is also within the City of Oakdale's future sphere of influence. Among all Build Alternatives, Alternative 1A is closest to lands that have higher levels of planned growth in the future and is most compatible with the goals identified in the Regional Transportation Plan.

Alternative 1B

Alternative 1B follows the same alignment as Alternative 1A in Segments 1 and 2, so it crosses the same sphere of influence areas in Riverbank and Oakdale. In Segment 3, Alternative 1B extends outside of the City of Oakdale's sphere of influence. Land use along this alignment is mostly agricultural, and no planning documents have been approved to transform the land use near this alignment. Alternative 1B is close to some higher planned growth areas, but also passes areas with lower levels of planned growth.

Alternative 2A

Alternative 2A shares the same alignment with the other three alternatives in Segment 1. In Segment 2, Alternative 2A is outside any city boundary or sphere of influence. Land use along this alignment is mostly agricultural, and no planning documents have been approved to develop land near this alternative in Segment 2. In Segment 3, Alternative 2A passes through the Sierra Point Specific Plan Area. This segment of Alternative 2A is also within the City of Oakdale's future sphere of influence. Among all alternatives, Alternative 1A is closest to lands with high planned growth potential in the future. Alternative 2A is close to some higher planned growth areas, but also passes areas with lower levels of planned growth.

Alternative 2B

Alternative 2B shares the same alignment with the other three alternatives in Segment 1. In Segment 2, Alternative 2B is outside any city boundary or sphere of influence. In Segment 3, Alternative 1B extends outside the City of Oakdale's sphere of influence. Land use along this alignment in Segments 2 and 3 is mostly agricultural, and no planning documents have been approved to develop land in this area. Among all build alternatives, Alternative 2B is farthest from lands that have higher levels of planned growth in the future.

All alternatives were designed to accommodate and support future growth in areas defined in approved general plans and specific plans in the county and cities. The proposed project would not directly result in unplanned growth. The project would not create additional public services on which homes and businesses rely, such as water services from private wells and septic systems. In addition, the project would not create access to previously inaccessible areas.

Implementation of the project, however, would result in increased accessibility in areas surrounding the project, especially areas at intersections and interchanges. Research has shown that although accessibility improvements rarely change the rate of growth of a region, change in accessibility can influence the direction of growth in a region and the rate of growth in local areas. Even in areas where there is no net change in the overall amount of growth, the design or location of a transportation project can alter the patterns of land use and extent of potential impacts to resources. In addition, reduced congestion associated with the proposed project could influence travel behavior, trip patterns, or the attractiveness of some undeveloped areas along the corridor. Therefore, the selection of a specific project alternative would result in different development patterns in the future.

Most of the undeveloped land along the entire proposed corridor is agricultural land. In Segment 1, agricultural lands are more fragmented due to proximity to the cities of Modesto and Riverbank. Larger areas of agricultural lands can be found in Segments 2 and 3. As emphasized by the city and county planning policies, preservation of agricultural lands is the main planning goal in the county and nearby cities. Conversion of farmland in the region has

also been limited by local, state, and federal policies. Currently, no other development besides the specific plan areas mentioned are planned in the vicinity of the project, and it appears that, for the foreseeable future, agricultural uses will continue to dominate.

In the future, factors such as transportation, population growth, and economic growth, availability of developable land, lower cost, and desirable location along the future corridor may lead to increased growth pressure in the project study area. The cities of Modesto, Riverbank, and Oakdale are all considering the expansion of their facilities or limits of sphere of influence in light of such expected growth. As these expansion plans take place, future development is likely to be attracted to the developable land along the proposed corridor, and such growth pressure may act as a factor to accelerate the conversion of agricultural and other open space lands to development uses. Ultimately, the cities and Stanislaus County have the decision-making authority over land use in terms of location, amount, type, and rate of development pursuant to its respective plans and policies.

Step 3: Growth-related Effects

Due to the above reasons, a conclusion can be drawn that the project is unlikely to result in unplanned growth, and it would not change growth patterns. However, implementation of any of the build alternatives may attract future development in the region towards the corridor. Consequently, compared to the No-Build Alternative, the local rate of growth along the selected alignment may accelerate.

The Build Alternatives of the North County Corridor are within or close to the three cities' spheres of influence, where future growth and development are anticipated and planned for. Such growth is expected to occur regardless of whether the project is implemented, and the project is needed to provide adequate infrastructure for anticipated future growth, as the County Regional Transportation Plan and specific plan documents have assumed the existence of the North County Corridor in their analyses. Also, this growth would comply with Goal 4 of the County Regional Transportation Plan: "Provide mixed land uses and compact development patterns, and direct development toward existing infrastructure to preserve agricultural land, open space, and natural resources."

The main resource of concern within the spheres of influence is farmland. Other developable lands, such as empty lots or abandoned properties, are also present in the specific plan areas. Because the North County Corridor is a project included in the County's Regional Transportation Plan and approved by the cities, effects of planned growth in these areas and effects on natural resources have been analyzed by local jurisdictions through their land use section of their general and specific plan documents.

In areas outside the cities' spheres of influence, the North County Corridor may have the potential to attract future development. Such areas include the development of agricultural land along all alternatives in Segment 2 and land along Alternatives 1B and 2B in Segment 3. Resources in these areas include farmland, fragmented natural habitat and special-status species habitat. Currently, there are no future/foreseeable development plans in unincorporated county land. Habitat for many species overlaps with one another; many of the bird species have a similar foraging and/or nesting habitat within the project area. In general, there are fewer resources of concern within the cities' spheres of influence, as they are fragmented and disturbed by human inhabitation. The project's direct effects to farmland, natural communities of concern, and special-status species are summarized in Table 3.1.2-2.

Table 3.1.2.-2: Effects to Resources of Concern

Resource Affected	Affect Area (Acres)			
	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
Farmland	470	576	397	540
Natural Communities of Special Concern[1]	3.58	6.49	4.03	8.52
Tricolored Blackbird Foraging Habitat	335.96	409.29	330.04	405.43
Western Burrowing Owl Suitable Habitat	12.34	31.45	13.44	41.66
Swainson's Hawk Foraging Habitat	335.96	409.29	330.04	405.43
Northern Harrier Nesting and Foraging Habitat	348.3	440.74	343.48	447.09
White-Tailed Kite Foraging Habitat	335.96	409.29	330.04	405.43
California Horned Lark Nesting and Foraging Habitat	348.3	440.74	343.48	447.09
Merlin Foraging Habitat	335.96	409.29	330.04	405.43
Loggerhead Shrike Nesting and Foraging Habitat	336.96	412.59	331.04	408.73
Pacific Pond Turtle Aquatic Habitat	8.42	0.86	0.29	5.82
Western Spadefoot Toad Aquatic Habitat	0.43	0.42	1.23	1.56

[1] Natural Communities of Special Concern includes interior live oak woodland, blue oak savannah, perennial marsh, seasonal marsh, riparian scrub, and seasonal wetland.

Source: Natural Environment Study 2016

As noted in the table, Alternatives 1A and 2A would have relatively smaller direct effects on the resources, and Alternatives 1B and 2B would have greater direct effects. Resources outside of the project's Primary Impact Area were not surveyed; however, it is assumed that the distribution of these resources in a larger area follows a similar pattern and density as the resources surveyed along the alternative alignments. Therefore, future development would, on average, produce less growth-related effect along the alignments of Alternatives 1A and 2A than a similar level of development along Alternatives 1B and 2B.

Potential adverse effects to resources in the area, including farmland, natural habitat and special-status species, have been or will be evaluated in the county and cities' land use development plans for specific development projects. In addition, future projects proposed to occur in the county will be required to perform environmental assessments to ensure minimal adverse effects to any resources of concern.

Step 4: Additional Opportunities to Avoid and Minimize Growth-related Effects

Growth effect created by all the project alternatives will be minimized through land use policies and the construction schedule. Municipal growth boundaries and zoning code set forth by the county and cities will restrict unplanned growth. Agricultural land in the study area is also protected by the Farmland Protection Policy Act, the Williamson Act, and/or local policies.

Step 5: Compare the Results

As discussed previously, all project alternatives are designed to accommodate past and future planned regional growth as discussed in the Stanislaus County General Plan, Regional Transportation Plan, and cities' general plans and specific area plans. Given the growth in Stanislaus County that has occurred without the project, the North County Corridor is being planned to accommodate growth that has already occurred, with limited capacity to induce further growth. Future development and investment in the region are expected to occur mainly in response to underlying economic conditions, including supply and demand for housing, goods and services, and only marginally due to improved travel time and accessibility. Other factors that would influence future development along the North County Corridor include existing infrastructure, land prices, and physical constraints.

Although the North County Corridor project would mostly accommodate previous growth that has occurred as well as future planned growth rather than induce new unplanned growth, it would change accessibility and mobility within the area and could potentially contribute to improved accessibility to and from the surrounding metropolitan areas. By reducing traffic bottlenecks and current stop-and-go vehicular traffic, the build alternatives would facilitate the flow of traffic, leading to time savings for the traveler. The project would have the effect of providing a better connection by means of a major new multi-lane, limited access highway.

The increased accessibility created by the North County Corridor project may affect the location of expected growth because improved access to the region could make the parcels adjacent to the corridor more desirable. However, on a regional scale, the rate, type, and amount of growth in the project vicinity are not expected to substantially change due to land use controls shaped by local and regional plans and policies, and a desire to approve projects that are compatible with the surrounding land uses. Growth has been occurring in the Cities of Modesto, Riverbank, and Oakdale, and the project would accommodate the circulation demands that have been created by past and ongoing developments in the three cities' sphere of influence. This would also potentially indirectly influence development in the surrounding unincorporated areas.

In summary, none of the build alternatives are expected to substantially influence the overall amount or type of regional growth or influence the redistribution of economic development and population. The pattern and rate of population and housing growth would remain consistent with the population expected in existing planning documents for the area. Growth in Stanislaus County is expected to follow the trend of the Central Valley's population growth, which is fueled by high birthrates and the immigration of people from other parts of California. The potential for growth in the area is consistent with local land use plans and current trends; the project would not substantively influence growth, and no growth-related impacts are expected. Current growth trends and potential future growth are considered in local land use plans, and the project would not influence growth that is not currently planned. The project would not result in direct adverse growth-related impacts.

It is important to note that future development patterns would ultimately be determined by multiple factors such as population growth, economic growth, land availability, cost and desirability, as well as the approval of land use change by the County or cities. The rate of population growth for 2015-2020 is 4.63 percent in Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). The rate of economic growth for 2015-2020 in the form of expected job growth is 7.4 percent for Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). All the Build Alternatives to varying degrees will accommodate the forecasted growth listed above. Each Build Alternative is discussed in detail below.

Alternative 1A

Of the four Build Alternatives, Alternative 1A is closest to the cities' spheres of influence, where existing and planned future development will occur regardless of project implementation. Therefore, Alternative 1A will accommodate planned growth in the project area. This alternative would also direct future growth toward existing urban cores, as well as form a desirable future growth pattern according to the Regional Transportation Plan.

In general, there are fewer resources of concern in a city's sphere of influence due to previous development and human disturbance. Therefore, growth along the Alternative 1A alignment also would have less effect on resources compared to other alternatives. By selecting this alternative, future growth will be attracted toward an existing planned development area.

Alternative 1B

Alternative 1B is also close to the cities' sphere of influence and would adequately support the foreseeable growth in the project area; however, compared to Alternative 1A, this alternative may cause greater pressure in the future (though no current development plans are under consideration in this area) to develop land along its alignment in Segment 3. This alternative would be inconsistent with Goal 4 in the County's Regional Transportation Plan for compact growth and preservation of agricultural lands, open space and natural resources.

In Segment 3, Alternative 1B extends farther away from the specific plan areas, outside of any city's sphere of influence. Resources such as farmland and natural habitat are less disturbed in these areas. Therefore, compared to Alternative 1A, potential future development along Alternative 1B would have a greater effect on resources of concern, and this alternative is less favorable.

Alternative 2A

Alternative 2A is also close to the cities' sphere of influence and would adequately support the foreseeable growth in the project area; however, compared to Alternative 1A, this alternative may cause greater pressure to develop land along its alignment in Segment 2 (though no current development plans are under consideration in this area). This alternative would be inconsistent with Goal 4 in the County's Regional Transportation Plan for compact growth and preservation of agricultural lands, open space and natural resources.

In Segment 2, Alternative 2A extends farther away from the specific plan areas, outside of any city's sphere of influence. Resources such as farmland and natural habitat are more abundant and intact in these areas. Therefore, compared to Alternative 1A, potential future development

along Alternative 2A would have a greater effect on resources of concern, and this alternative is less favorable.

Alternative 2B

Of the four Build Alternatives, Alternative 2B is farthest from the cities' spheres of influence and specific plan areas. This alternative may cause greater pressure to develop land along its alignment in Segments 2 and 3 (though no current development plans are under consideration in these areas). This alternative would be the most inconsistent with Goal 4 in the County's Regional Transportation Plan for compact growth and preservation of agricultural lands, open space and natural resources.

In Segments 2 and 3, Alternative 2B passes through a large swath of undeveloped, unincorporated agricultural land far away from any specific plan areas. Future land development along this alternative (if approved by the County) would likely result in development far from urban cores, plus greater effect to resources of concern than development associated with Alternatives 1A, 1B, and 2A. Therefore, Alternative 2B is the least favorable alternative.

Step 6: Findings of Analysis

The project will adequately accommodate planned growth in the region. Implementation of any Build Alternative has the potential to attract future residential, commercial, and industrial development in the region toward the corridor and increase the local rate of growth along the selected alignment. Future development patterns would ultimately be determined by multiple factors such as population growth, economic growth, land availability, cost and desirability, as well as the approval of land use change by the County or cities. As suggested by the analysis, Alternative 1A is the most favorable alternative on the basis of growth, as development along its alignment is most foreseeable and would result in less risk to resources of concern. Alternative 1A also meets the goals under the County Regional Transportation Plan for compact development and preservation of farmland, open space, and natural resources. The rate of population growth for 2015-2020 is 4.63 percent in Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). The rate of economic growth for 2015-2020 in the form of expected job growth is 7.4 percent for Stanislaus County (California County-Level Economic Forecast 2015, Caltrans and California Economic Forecast). All the Build Alternatives to varying degrees will accommodate the forecasted growth listed above. Alternatives 2A and 1B are also relatively favorable, as they are both partially within the cities' spheres of influence and planned development areas.

No-Build Alternative

Planned growth would still occur even if the No-Build Alternative is selected; however, growth would occur in a different manner. Under No-Build Alternative conditions, congestion on existing SR-108 will continue to worsen as a result of the increased population and traffic volume, resulting in inefficient movement of people and goods. Resources of concern in the project area would not be affected by the project; however, by not implementing the North County Corridor project as planned in the Regional Transportation Plan, growth may be attracted to other areas with better traffic circulation. Areas that are more accessible throughout the county may experience growth at a higher rate than identified in the Regional Transportation Plan. The No-Build Alternative does not meet the purpose and need of the project.

The project conforms with most of the circulation analysis and goals, plans, programs, and policies identified in the Stanislaus County General Plan, Stanislaus County Regional Transportation Plan, and the general plans and specific plans of the cities of Modesto, Riverbank and Oakdale. Goals and policies such as sustainable development, land use and transportation planning, farmland conservation, natural resource conservation, and jobs-housing balance have been identified in regional and local plans to avoid and minimize any growth-related effects.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures by Stanislaus County will ensure farmland impacts are minimized:

- Conversion of farmland to non-farmland uses will be mitigated by preserving an equal amount of agricultural land within the County in those areas that have not been approved or proposed for urban uses. This is consistent with Stanislaus County's current policy in the Farmland Mitigation Program Guidelines of requiring 1:1 replacement for agricultural land impacted by proposed projects where feasible.

- If 1:1 replacement is not available in the County, agricultural easements administered by land trusts (examples include Ducks Unlimited, The Nature Conservancy, American Farmland Trust) or other non-profit entities on agricultural parcels will be considered as a means to mitigate for the permanent loss of agricultural land within the Stanislaus County region.

- Mitigation at a 1:1 ratio for acquired agricultural lands will be accomplished through purchase of credits through an organization such as the Agricultural Land Stewardship Program established by the California Farmland Conservancy, administered by the Division of Land Resource Protection, to mitigate for the permanent loss of agricultural land within the Stanislaus County region. The Agricultural Land Stewardship Program is a grant program that aids in purchasing and/or partially funding agricultural easements. Under this program, any property proposed for easement must meet certain criteria (e.g., location, soil quality, water availability) that make it a priority for the potential easement holder organization to pursue an easement. If the potential easement holder wishes to pursue an easement on the proposed property, the organization would negotiate terms with the landowner, including price (unless the easement is to be donated) and restrictions. If the easement is to be purchased, the potential easement holder may seek grant funding under this program.

- Where parcels are bisected by a segment of the proposed project, but enough usable land remains on either side of the highway to be cultivated, access for livestock, machinery, and/or drainage shall be constructed where feasible in order to provide access to both portions of the property so that the land is still viable for farming operations.

Avoidance, minimization, and mitigation measures for Prime Farmland are discussed in Section 3.1.3.

3.1.3 Farmlands

Regulatory Setting

NEPA and the Farmland Protection Policy Act (7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance.

CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

Affected Environment

Farmland was analyzed as part of the *Community Impact Assessment* (February 2016) for the project. Agriculture is the leading industry in Stanislaus County, and farmlands occur throughout the study area. Agricultural land use in Stanislaus County includes approximately 147,530.5 acres of Prime Farmland and 13,696.3 acres of Farmland of Statewide Importance. Agricultural land uses include livestock grazing; hay production; dairies; walnut, almond, and various fruit orchards; row crops; and nurseries. According to the Stanislaus County Crop Report for 2014, Stanislaus County farmland production is about $4.4 billion annually. Stanislaus County had a net change in Prime Farmland of -2,731 acres and 26 for farmland of Statewide Importance (from 2008 to 2010), according to the California Department of Conservation. The study area consists of pockets of farmland in Segment 1 and large areas of farmland in Segments 2 and 3.

The project area consists of about 2,000 acres of farmland (Prime Farmland and Farmland of Statewide Importance), which represent 41 percent of the project area's total land use. According to Natural Resources Conservation Service soils maps, Prime Farmland is concentrated at the west end of the project area between Tully Road and Oakdale Road, and at the east end near Crane Road, Langworth Road, Stearns Road, Sierra Road, and SR-120. Farmland of Statewide Importance is present in Segments 2 and 3, scattered between Langworth Road and SR-120. Figure 3.1.3-1 shows the distribution of farmland according to Farmland Mapping and Monitoring Program 2012 data, which is the most current data available.

The protection and value of agricultural land in Stanislaus County are discussed in the Agricultural Element of the Stanislaus County General Plan (summarized in Table 3.1.1.2-1.) Agricultural lands in Stanislaus County represent a valuable resource, and the general plan identified goals and policies to strengthen the agricultural sector of the economy, conserve agricultural lands for agricultural uses, and protect the natural resources that sustain agriculture in Stanislaus County (Stanislaus County, 1994).

Environmental Consequences

<u>Build Alternatives 1A, 2A, 1B and 2B</u>

Depending on the project alternative, conversion of approximately 397 to 576 acres of agricultural parcels to public right-of-way would be required to accommodate the proposed

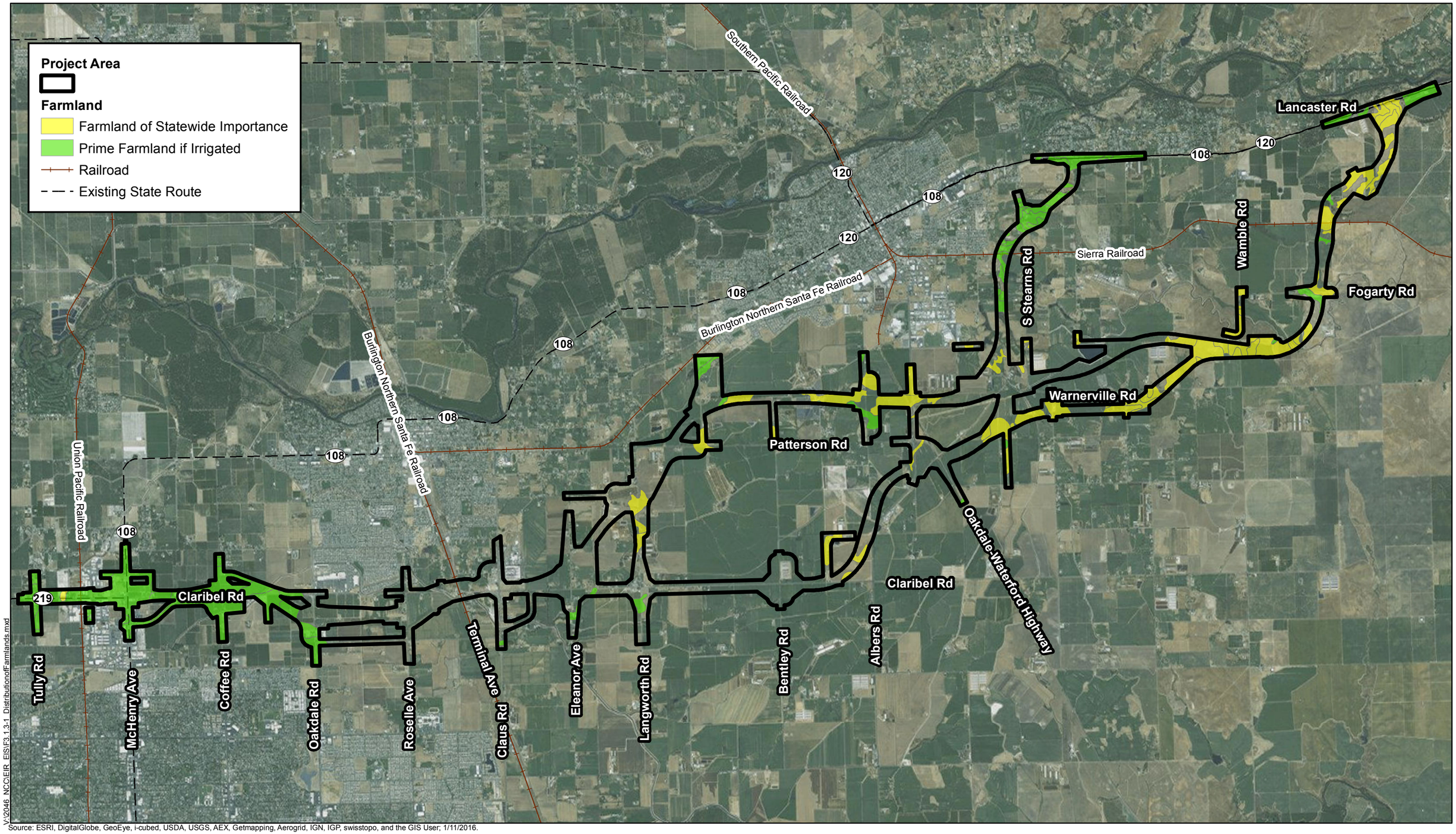
expansion of roadways within the North County Corridor. Table 3.1.3-1 shows the acreage of farmland affected by each alternative, as well as the percentage of each type of farmland affected relative to the total amount of that type in Stanislaus County. As shown in the table, Alternatives 1A and 2A would cause greater impacts to Prime Farmland by affecting 0.24 percent of the County's total Prime Farmland; Alternatives 1B and 2B would have greater impacts to the total amount of farmland.

Table 3.1.3-1: Farmland Impacts by Alternative

Farmland Type	Total Acres and Percentage of Farmland Impacts			
	Alternative 1A	**Alternative 1B**	**Alternative 2A**	**Alternative 2B**
Prime Farmland	352 (0.24%)	296 (0.20%)	356 (0.24%)	291 (0.20%)
Farmland of Statewide Importance	118 (0.85%)	280 (2.04%)	41(0.27%)	249 (1.75%)
Total (Acres)	**470**	**576**	**397**	**540**

Source: Community Impact Assessment, 2016
Note: The percentage is the percentage of each type of farmland affected relative to the total amount of that type in Stanislaus County.

Impacts to farmland were determined through cut/fill and right-of-way limits of all build alternates and were overlaid onto Farmland Mapping and Monitoring Program/Natural Resources Conservation Service files. The federal process to assess farmland impacts is guided by the provisions of the Farmland Protection Policy Act, which calls for completion of Form CPA-106 (Farmland Conversion Impact Rating for Corridor Projects – located in Appendix C of the Community Impact Assessment, 2016) for linear transportation projects. In accordance with the instructions for CPA-106, Sections I and III were completed and the form sent to the Natural Resources Conservation Service office in the U.S. Department of Agriculture Service Center in Modesto. Natural Resources Conservation Service staff determined that the study area contained 1,005 acres of Prime Farmland subject to the Farmland Protection Policy Act, completed Sections II, IV, and V of the form, and returned the form to the County. After the County received the form from Natural Resources Conservation Service, Sections VI and VII were completed, yielding a total corridor assessment value for the farmland in the study area. A determination was then made about whether the proposed conversion was consistent with the Farmland Protection Policy Act. Table 3.1.3-2 shows the conversion score of each Build Alternative.



V:\2046_NCC\EIR_EIS\F3.1.3-1_DistributionofFarmlands.mxd

Source: ESRI, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User; 1/11/2016.

0 1 2 3 4 5 Miles

FIGURE 3.1.3-1
Distribution of Farmlands within the Project Area
EA: 10-0S8000, Project ID # 1000000263
North County Corridor New State Route 108 Project
Stanislaus County, California

Table 3.1.3-2: Total Farmland Impacts by Build Alternative

Alternatives	Number of Farmland Parcels Affected	Land Converted (acres)	Percent of farmland in County Converted	Percent farmland in State	Farmland Conversion Impact Rating
Alternative 1A	221	470	0.13%	0.004%	135
Alternative 1B	218	576	0.16%	0.005%	136
Alternative 2A	216	397	0.11%	0.003%	134
Alternative 2B	210	540	0.15%	0.004%	137

Source: Community Impact Assessment, 2016

The Natural Resources Conservation Service (NRCS) farmland conversion guidance indicates that "sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated." As indicated in Table 3.1.3-2, farmland in the study area received a total corridor assessment value of 134 to 137 on Form CPA-106. According to the form, all Build Alternatives would have similar impacts to farmland within the project corridor. All Build Alternatives received a total score of less than 160; therefore, no additional sites need to be evaluated. Existing policy within Stanislaus County provides for conversion of farmland to non-farmland uses to be mitigated by preserving an equal amount of agricultural land within the county in those areas that have not been approved or proposed for urban uses. Implementation of the following measures by Stanislaus County will ensure farmland impacts are minimized:

- Conversion of farmland to non-farmland uses will be mitigated by preserving an equal amount of agricultural land within the County in those areas that have not been approved or proposed for urban uses. This is consistent with Stanislaus County's current policy in the Farmland Mitigation Program Guidelines of requiring 1:1 replacement for agricultural land impacted by proposed projects where feasible.

- If 1:1 replacement is not available in the County, agricultural easements administered by land trusts (examples include Ducks Unlimited, The Nature Conservancy, American Farmland Trust) or other non-profit entities on agricultural parcels will be considered as a means to mitigate for the permanent loss of agricultural land within the Stanislaus County region.

- Mitigation at a 1:1 ratio for acquired agricultural lands will be accomplished through purchase of credits through an organization such as the Agricultural Land Stewardship Program established by the California Farmland Conservancy, administered by the Division of Land Resource Protection, to mitigate for the permanent loss of agricultural land within the Stanislaus County region. The Agricultural Land Stewardship Program is a grant program that aids in purchasing and/or partially funding agricultural easements. Under this program, any property proposed for easement must meet certain criteria (e.g., location, soil quality, water availability) that make it a priority for the potential easement holder organization to pursue an easement. If the potential easement holder wishes to pursue an easement on the proposed property, the organization would negotiate terms with the landowner, including price (unless the easement is to be donated) and restrictions. If the easement is to be purchased, the potential easement holder may seek grant funding under this program.

- Where parcels are bisected by a segment of the proposed project, but enough usable land remains on either side of the highway to be cultivated, access for livestock,

machinery, and/or drainage shall be constructed where feasible in order to provide access to both portions of the property so that the land is still viable for farming operations.

The Williamson Act is a California law that provides property tax relief to owners of farmland and open-space land in exchange for a 10-year agreement that the land will not be developed or otherwise converted to another use. The motivation for the Williamson Act is to promote voluntary land conservation, particularly farmland conservation. About 2,000 acres of agricultural lands within the project area are currently under Williamson Act contracts (Community Impact Assessment, February 2016). Table 3.1.3-3 shows project impacts by Build Alternative to properties currently enrolled in Williamson Act contract.

Table 3.1.3-3: Total Williamson Act Acres within the Project Area

	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
Number of impacted parcels under Williamson Act contracts	72	89	75	77
Total acres of farmland under Williamson's Act contracts impacted by project	351	540	305	495
Percentage of total acres of impact to farmland under Williamson Act contracts in Stanislaus County	0.05%	0.08%	0.05%	0.07%
Number impacted parcels dropping out of Williamson Act contracts	1	1	1	1

Source: Community Impact Assessment, 2016

As shown in Table 3.1.3-3, Alternative 1B would have the greatest impact on the acreage of farmland under Williamson Act contract (540 acres). Each of the project alternatives would cause one parcel to drop out of its Williamson Act contract. Each Build Alternative would remove the same parcel from Williamson Act contract; the parcel is 9.6 acres. Williamson Act contract parcels affected by partial acquisition would have their contracts amended during the right-of-way process. Among all Build Alternatives, Alternative 2A would have the smallest impact on farmland under Williamson Act contract (305 acres, representing 0.05 percent of total farmland under Williamson Act contract in Stanislaus County).

According to CEQA Guidelines, Section 15206, cancellation of Williamson Act contracts for parcels exceeding 100 acres is considered to be "of statewide, regional, or area wide significance," and therefore subject to additional noticing and review requirements under CEQA. Even though in some instances impacted Williamson Act properties may stay enrolled in the Williamson Act program, there are no feasible avoidance, minimization, mitigation, or design measures that could be implemented to diminish potential impacts on Williamson Act-enrolled lands.

The purpose of the project is ultimately to build a west-east roadway that would improve regional network circulation, relieve existing traffic congestion, reduce traffic delay, accommodate future traffic, and benefit the regional economy. Once implemented, the project

would benefit agricultural businesses surrounding the study area by providing improved transportation conditions and more efficient movement of goods and services.

Unavoidable impacts to farmland will be minimized by project design and the mitigation measures discussed below.

Temporary Construction Impacts

Implementation of any alternative would result in temporary construction impacts to Prime Farmland and to parcels under Williamson Act contract. The project will require temporary construction easements for the temporary construction impacts, which include construction equipment staging and relocating irrigation lines.

No-Build Alternative

Under the No-Build Alternative conditions, no farmland acquisition or conversion would occur; however, the No-Build Alternative does not meet the purpose and need of the project.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in adverse impacts to agricultural resources. The project has been designed to be consistent with state, regional, and local plans and programs to the extent feasible. During final design, effort would be made to further avoid, minimize, and/or mitigate construction and operational impacts to existing farmland and be consistent with Stanislaus County policies, as more fully discussed in the tables above. Implementation of the following measures by Stanislaus County will ensure farmland impacts are minimized:

- Conversion of farmland to non-farmland uses will be mitigated by preserving an equal amount of agricultural land within the County in those areas that have not been approved or proposed for urban uses. This is consistent with Stanislaus County's current policy in the Farmland Mitigation Program Guidelines of requiring 1:1 replacement for agricultural land impacted by proposed projects where feasible.

- If 1:1 replacement is not available in the County, agricultural easements administered by land trusts (examples include Ducks Unlimited, The Nature Conservancy, American Farmland Trust) or other non-profit entities on agricultural parcels will be considered as a means to mitigate for the permanent loss of agricultural land within the Stanislaus County region.

- Mitigation at a 1:1 ratio for acquired agricultural lands will be accomplished through purchase of credits through an organization such as the Agricultural Land Stewardship Program established by the California Farmland Conservancy, administered by the Division of Land Resource Protection, to mitigate for the permanent loss of agricultural land within the Stanislaus County region. The Agricultural Land Stewardship Program is a grant program that aids in purchasing and/or partially funding agricultural easements. Under this program, any property proposed for easement must meet certain criteria (e.g., location, soil quality, water availability) that make it a priority for the potential easement holder organization to pursue an easement. If the potential easement holder wishes to pursue an easement on the proposed property, the organization would negotiate terms with the landowner, including price (unless the easement is to be donated) and restrictions. If the easement is to be purchased, the potential easement holder may seek grant funding under this program.

- Where parcels are bisected by a segment of the proposed project, but enough usable land remains on either side of the highway to be cultivated, access for livestock, machinery, and/or drainage shall be constructed where feasible in order to provide access to both portions of the property so that the land is still viable for farming operations.

3.1.4 Community Impacts

3.1.4.1 Community Character and Cohesion

Regulatory Setting

NEPA of 1969, as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S. Code 4331[b][2]). The Federal Highway Administration in its implementation of NEPA (23 U.S. Code 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Because this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

Population and housing information was compiled into a descriptive account of the physical dimensions and social characteristics of the project area to provide an overview of a range of local and regional demographic characteristics, including population growth, race and ethnic group, age, and housing density. Information on population and housing is obtained from the U.S. Census Bureau and local planning documents. This information helps determine whether the proposed project has environmental justice concerns. Population and housing are discussed in this document at a regional level and in a more detailed examination within the project area. Below is a description of the potentially affected communities and neighborhoods within the project area as defined within planning documents and by local knowledge (Community Impact Assessment, February 2016, Draft Relocation Impact Report, January 2016, and Final Relocation Impact Statement March 2019).

Population Characteristics/Community Character

Population and Growth

The 2010 U.S. Census found that Stanislaus County has a population of 514,453. The population has grown 15.09 percent since 2000. This growth rate was much higher than the state average rate of 9.99 percent. During this period, the city of Modesto had a lower population growth rate of 6.52 percent, while population in the cities of Riverbank and Oakdale increased by 43.3 percent and 33.36 percent, respectively. The total population of the county is

concentrated in the cities. Areas with the highest population density are found within census tracts 3.03 and 3.04 (both in Riverbank), where population density is 5,711.1 persons per square and 4,953.3 persons per square mile, respectively. Unincorporated areas in census tracts 1.02 and 28.02 have the lowest population densities, which are 44.7 and 182.7 persons per square mile, respectively. Figure 3.1.4.3, Census Tracts within the Project Area, is found in in Appendix A.

As of 2010, the population within the 12 census tracts representing the study area was 69,623, making up about 13.5 percent of the County's total population. High population within the study area was found largely in the city boundaries, although variation between census tracts exists. Among the 12 census tracts, 4.02 (Unincorporated/Modesto), 2.03 (Oakdale), and 5.01 (Modesto) contain the largest populations. Census tracts 5.05 (Modesto) and 1.02 (unincorporated) have the smallest populations.

Table 3.1.4.1-1 shows the total population and population density of the state, county, cities, and contiguous census tracts.

Table 3.1.4.1-1: Total Population and Population Density in 2010

Jurisdiction	Total Population	Population Density (persons per square mile)
California	37,253,956	227.6
County		
Stanislaus County	514,453	344.2
Affected Communities		
City of Modesto	201,165	5,423.4
City of Oakdale	20,675	3,392.1
City of Riverbank	22,678	5,509.7
Study Area Census Tracts		
Census Tract 1.02 (Unincorporated)	3,869	44.7
Census Tract 2.02 (Oakdale)	6,593	4,259.8
Census Tract 2.03 (Oakdale)	8,756	2,152.3
Census Tract 3.03 (Riverbank)	5,883	5,711.1
Census Tract 3.04 (Riverbank)	5,003	4,953.3
Census Tract 4.02 (Unincorporated/Modesto)	10,095	6,24.3
Census Tract 4.03 (Modesto)	4,317	2,858.2
Census Tract 4.04 (Modesto)	5,564	3,663.6
Census Tract 5.01 (Unincorporated)	7,165	526.2
Census Tract 5.05 (Modesto)	1,773	3,585.4
Census Tract 5.06 (Modesto)	4,295	2,855.7
Census Tract 28.02 (Unincorporated)	6,310	182.7

Source: U.S. Census Bureau 2010

Race and Ethnicity

As of 2010, Stanislaus County's majority ethnic composition is White (65.57 percent), with smaller portions of Black/African American (2.86 percent), Asian (5.07 percent), Native (American Indian, Alaska Native, Hawaiian Native) (1.81 percent), "some other race" (19.28 percent), and "two or more races" (5.4 percent). In addition, 41.92 percent of the total population

in Stanislaus County identified themselves as Hispanic. According to the U.S. Census definition, people who identify their origin as Spanish, Hispanic, or Latino may be of any race, so the percentage for Hispanic should not be added to percentages for racial categories.

Table 3.1.4.1-2 shows the ethnic compositions in the study area cities and census tracts, which follow a similar pattern as the county, with a majority of the population in the study area census tracts being White. Census tracts 1.02 (unincorporated) and 4.03 (Modesto) have the largest percentage of White residents, and census tracts 3.04 and 3.03 (both in Riverbank) have the highest percentage of Hispanic residents. Compared to the other census tracts and the County average, census tracts 5.06 and 5.05 (both in Modesto) contain a higher percentage of Black/African American population, and census tracts 5.05 and 5.01 (both in Modesto) contain a higher percentage of Asian residents.

Table 3.1.4.1-2: Ethnic Composition in 2010

Jurisdiction	White	Black/ African American	American Indian, Alaska, Hawaiian Native	Asian	Some Other Race	Two or More Races	Hispanic*
County							
Stanislaus County	65.57	2.86	1.81	5.07	19.28	5.4	41.92
Affected Communities							
City of Modesto	65.04	4.17	2.2	6.74	15.53	5.4	35.48
City of Oakdale	80.09	0.79	1.19	2.24	11.54	4.15	26.11
City of Riverbank	65.93	2.12	1.57	3.4	21.82	5.16	52.13
Study Area Census Tracts							
Census Tract 1.02 (Unincorporated)	86.74	0.1	1.42	1.68	6.64	3.41	18.45
Census Tract 2.02 (Oakdale)	76.79	1.14	0.88	3.34	13.54	4.31	29.91
Census Tract 2.03 (Oakdale)	78.16	0.73	1.31	2.25	13.67	3.87	27.68
Census Tract 3.03 (Riverbank)	69.51	2.02	1.46	2.18	19.48	5.35	53.85
Census Tract 3.04 (Riverbank)	56.67	1.38	1.54	0.64	34	5.78	72.82
Census Tract 4.02 (Unincorporated/Modesto)	71.63	2.35	1.5	6.05	13.06	5.42	33.96
Census Tract 4.03 (Modesto)	80.24	2.5	1.9	3.73	6.83	4.79	21.75
Census Tract 4.04 (Modesto)	71.57	4.04	1.31	9.9	7.17	6	23.96
Census Tract 5.01 (Unincorporated)	68.12	2.9	1.54	7.13	15.13	5.18	30.03
Census Tract 5.05 (Modesto)	60.20	4.76	3.08	11.26	13.07	7.62	30.26
Census Tract 5.06 (Modesto)	71.9	5.12	1.91	4.38	10.97	5.73	28.45
Census Tract 28.02 (Unincorporated)	73.33	0.67	1.62	1.32	18.73	4.34	37.78

Source: U.S. Census Bureau 2010
**Note: According to the U.S. Census definition, people who identify their origin as Spanish, Hispanic, or Latino may be of any race. The percentage for Hispanic should not be added to percentages for racial categories.*

Income Distribution

In economics, “income distribution” is how a nation’s total Gross Domestic Product (GDP) is distributed amongst its population. Table 3.1.4.1-3 shows the household income of the County, cities, and census tracts. In general, income distribution in all communities and contiguous

census tracts of the North County Corridor roughly follows the idealized hypothetical income distribution curve, where the percentage of highest-earning and lowest-earning households is low, and the percentage of medium-earning households is high.

Table 3.1.4.1-3: Household Income Distribution (Percentage)

Jurisdiction	$10k or less	$10k-$20k	$20k-$30k	$30k-$40k	$40k-$50k	$50k-$75k	$75k-$100k	$100k-$150k	$150k-$200k	$200k or more
County										
Stanislaus County	6.02	12.61	11.59	10.81	9.1	18.48	12.34	12.31	3.86	2.88
Affected Communities										
City of Modesto	6.07	13.19	11.68	11.05	8.73	18.48	11.77	12.2	3.79	3.05
City of Oakdale	6.68	11.94	6.91	9.29	7.77	21.33	13.54	15.44	3.4	3.69
City of Riverbank	3.29	10.4	10.32	12.82	9.18	18.32	14.6	14.24	4.4	2.43
Study Area Census Tracts										
Census Tract 1.02 (Unincorporated)	0.81	3.97	8.09	11.4	11.84	12.94	11.03	22.5	7.06	10.37
Census Tract 2.02 (Oakdale)	6.78	11.04	4.75	12.13	5.79	20.54	12.82	17.33	5.2	3.61
Census Tract 2.03 (Oakdale)	7.96	13.28	8.56	8.31	10.05	16.87	14.52	15.57	3.11	1.78
Census Tract 3.03 (Riverbank)	2.56	6.34	14.24	11.8	9.53	22.21	16.28	12.03	2.97	2.03
Census Tract 3.04 (Riverbank)	4.19	19.36	11.58	11.58	10.76	20.85	10.69	10.69	0	0.3
Census Tract 4.02 (Unincorporated/ Modesto)	4.07	8.29	6.61	9.37	5.94	16.84	17.69	18.58	8.67	3.94
Census Tract 4.03 (Modesto)	3.46	10.11	6.71	10.25	9.12	19.36	11.38	16.04	7.07	6.5
Census Tract 4.04 (Modesto)	7.56	15.46	7.17	8.58	9.65	13.81	12.55	20.99	2.76	1.45
Census Tract 5.01 (Unincorporated)	0	5	4.45	7.29	11.7	18.02	17.98	17.98	6.45	11.11
Census Tract 5.05 (Modesto)	2.09	7.64	12.75	8.68	10.22	19.83	15.33	15.33	6.65	1.48
Census Tract 5.06 (Modesto)	7.72	21.9	11.66	9.49	5.89	14.29	12.46	7.2	5.83	3.54
Census Tract 28.02 (Unincorporated)	6.91	7.4	14.31	5.51	13.28	24.24	12.63	11.99	1.62	2.11

Source: U.S. Census Bureau, 2010

Neighborhoods/Communities/Community Character

Areas exhibiting longer homeowner tenures are also expected to have greater community cohesion, due to homeowners being actively engaged in their community for a longer period of time. Areas with high proportions of older adults are also indicative of places with elevated community cohesion, as older adults generally show higher levels of community and civic involvement than younger residents. Areas with high proportions of minority residents and/or cultural homogeneity (explored in this section through an analysis of linguistic [language]

isolation) are also expected to have greater community cohesion, resulting from a shared ethnic and/or cultural background.

Table 3.1.4.1-4 shows factors that may indicate community cohesion, including percentage of owner-occupied housing, average length of home tenure, and percentage of linguistically isolated households within the study area. According to the 2010 U.S. Census data, 55.36 percent of the occupied housing units in Stanislaus County are occupied by the owner, and 10 of the 12 census tracts have owner-occupied housing proportions higher than that of the county. Census tracts 5.05 and 5.06, both in the City of Modesto, are the only census tracts with a lower-than-county owner-occupied housing rate (51.78 percent and 50.75 percent, respectively). Land use in census tract 5.06 is largely business parks and regional commercial developments. Land use in census tract 5.05 consists of residential developments, farmland, and business parks.

Table 3.1.4.1-4: Home Occupancy and Length of Residency

Jurisdiction	Owner-Occupied Housing	Average Length of Tenure (Years)	Linguistically Isolated Households
County			
Stanislaus County	99,364 (55.36%)	8.92	9.1%
Affected Communities			
City of Modesto	39,422 (52.53%)	9.05	6.7%
City of Oakdale	4,454 (56.94%)	8.84	3.6%
City of Riverbank	4,753 (67.24%)	7.99	10.2%
Study Area Census Tracts			
Census Tract 1.02 (Unincorporated)	1,122 (76.80%)	9.69	0%
Census Tract2.02 (Oakdale)	1,313 (56.55%)	7.76	3.9%
Census Tract 2.03 (Oakdale)	1,930 (57.03%)	7.85	4.7%
Census Tract 3.03 (Riverbank)	1,313 (73.27%)	6.10	7.7%
Census Tract 3.04 (Riverbank)	888 (61.62%)	9.21	19.7%
Census Tract 4.02 (Unincorporated/Modesto)	2,490 (74.71%)	8.43	5.2%
Census Tract 4.03 (Modesto)	1,207 (74.05%)	9.60	0.5%
Census Tract 4.04 (Modesto)	1,379 (62.51%)	7.07	3.1%
Census Tract 5.01 (Unincorporated)	1,884 (76.49%)	8.60	3.8%
Census Tract 5.05 (Modesto)	918 (51.78%)	9.86	0.8%
Census Tract 5.06 (Modesto)	979 (50.75%)	7.18	6.4%
Census Tract 28.02 (Unincorporated)	1,314 (59.62%)	10.16	4.6%

Source: Community Impact Assessment, 2016

Data on the average length of home tenure is provided by the 2006-2010 American Community Survey 5-year Estimates (American Community Survey, 2010a). Length of home residency can typically give a general indication of the residential stability of an area. The estimated average length of home residency of Stanislaus County is 8.92 years. For the study area, census tracts 28.02 and 1.02 (both in unincorporated area), and 5.05, and 4.03 (both in Modesto) showed the longest average home residency. Census tracts within the three incorporated cities, except 4.03 and 5.05, are occupied by relatively recent owners or renters attributed to the cities' population

booms in recent years. Residents in census tract 3.03 (Riverbank) have the shortest average length of home tenure (6.1 years).

Linguistically isolated households are those in which no person older than 14 responded that they speak English at least "very well" to the U.S. Census. According to 2006-2010 American Community Survey 5-year Estimates (American Community Survey. 2010b), census tract 1.02 (unincorporated), 4.03 (Modesto), and 4.04 (Modesto) have the lowest percentage of linguistically isolated households (0 to 3.1 percent). Census tract 3.04 (Riverbank) has the highest (19.7 percent) of linguistically isolated population, a higher percentage than the county as a whole.

Most of the proposed project is in the fringe of existing urban developments. Within the project area, one religious institution is found in census tract 5.06; three religious institutions and one private-owned sports field are found in census tract 4.02. No community gathering places such as schools, parks, markets, or theatres are present within the project area.

Segments 2 and 3 are mostly scattered rural residences and not cohesive neighborhoods. Given the data on age, percentage of owner-occupied homes, length of householders tenure, proportion of linguistically isolated households, and presence of community gathering facilities, it can be inferred that communities in census tracts 4.03 and 5.05 (both in Modesto) and 28.02 and 1.02 (both in unincorporated area) are likely to have higher community cohesion due to the longer home residency. Community cohesion in census tract 3.04 is also likely to be high due to the significantly higher percentage of linguistically isolated households within the community. Three community gathering facilities within the project area are in census track 4.02, indicating these communities are likely to have higher community cohesion. Other census tracts do not display significant factors that indicate high community cohesion.

Housing

There are 747 residential parcels in the project area and 22,014 within the Secondary Impact Area. It is assumed that housing in the Primary Project Area will follow the same housing statistics with housing in their respective census tract.

In 2010, housing units within the contiguous census tracts of the North County Corridor composed 14.4 percent of all housing units within Stanislaus County. The rates of occupied housing units are above 90 percent throughout the county and the study area, while the median home price differed drastically from $199,500 (census tract 3.03, Riverbank) to $639,000 (census tract 1.02, unincorporated). The county's average home price is $285,200. The home price throughout the study area can be affected by factors such as parcel size and condition of the housing structure.

As discussed above, average owner-occupied housing rates within the contiguous census tracts of the North County Corridor are generally higher than or comparable to that of the county (55.36 percent), except for census tracts 5.05 and 5.06 (both in Modesto). These census tracts also have a renter-occupied housing rate higher than the county's 36.67 percent.

The average household and family sizes in the study area is 3.02, which is comparable to the county's 3.08. Six of the 12 contiguous census tracts have an equal or higher number of persons per household than that of the county average, suggesting that these areas are more likely to house families with children younger than 18. The highest persons-per-housing rates are found in census tracts 3.03 and 3.04, both within the City of Riverbank. The lowest persons-per-housing rates are found in census tracts 5.06, 4.03, and 4.03, all within the City of Modesto.

Table 3.1.4.1-5 summarizes the housing profile of the county, cities, and census tracts.

Table 3.1.4.1-5: Housing Profile

Jurisdiction	Total Housing Unit	Housing units occupied	Owner-occupied housing	Renter-occupied housing	Median home price (2006-2010)	Persons per Household
County						
Stanislaus County	179,503	92.02%	55.36%	36.67%	$285,200	3.08
Affected Communities						
City of Modesto	75,044	92.09%	52.53%	39.56%	$282,500	3.38
City of Oakdale	7,822	93.17%	56.94%	36.23%	$287,300	2.81
City of Riverbank	7,069	93.07%	67.24%	25.83%	$253,700	3.42
Study Area Census Tracts						
Census Tract 1.02 (Unincorporated)	1,461	94.39%	76.80%	17.59%	$639,000	2.81
Census Tract 2.02 (Oakdale)	2,322	92.08%	56.55%	35.53%	$287,900	3.03
Census Tract 2.03 (Oakdale)	3,384	92.91%	57.03%	35.87%	$279,990	2.78
Census Tract 3.03 (Riverbank)	1,792	94.20%	73.27%	20.93%	$199,500	3.46
Census Tract 3.04 (Riverbank)	1,441	89.38%	61.62%	27.76%	$261,200	3.88
Census Tract 4.02 (Unincorporated /Modesto)	3,333	94.54%	74.71%	19.83%	$347,100	3.2
Census Tract 4.03 (Modesto)	1,630	95.09%	74.05%	21.05%	$263,600	2.72
Census Tract 4.04 (Modesto)	2,206	92.25%	62.51%	29.74%	$295,800	2.73
Census Tract 5.01 (Unincorporated)	2,463	93.75%	76.49%	17.26%	$424,600	3.1
Census Tract 5.05 (Modesto)	1,773	89.34%	51.78%	37.56%	$307,600	3.08
Census Tract 5.06 (Modesto)	1,929	92.28%	50.75%	41.52%	$243,900	2.41
Census Tract 28.02 (Unincorporated)	2,204	91.88%	59.62%	32.26%	$322,900	3.11

Source: U.S. Census Bureau 2010

For each housing element period, the California Department of Housing and Community Development (HCD) prescribes housing allocations for each California region. In the planning period of January 1, 2014 through September 30, 2023, the StanCOG regional housing need was projected to be 21,330 units (HCD, 2013). Planned residential development areas in the vicinity of the proposed project include the following:

- Salida Community Plan Area (Modesto), with approximately 6,405 dwelling units
- Sierra Pointe Specific Plan Area (Oakdale), with 901 dwelling units
- Crane Crossing Specific Plan Area (Oakdale), with approximately 1,039 dwelling units
- Bridle Ridge Specific Plan (Oakdale) low density residential homes, parks, schools, and commercial use
- Future Specific Plan Area 5 (Oakdale) 707 acres with low, medium, and high density residential, commercial, parks, and an elementary school

Residential density designations in the Land Use Elements of all four applicable general plans anticipate population increases within their jurisdictions. This is particularly true for communities within the study area, some of which are within the spheres of influence of the fast-growing cities and expected to urbanize in the near future. The main element of the jobs/housing balance concept is to locate residential areas near job centers and commercial services with the premise that commuting, the overall number of vehicle trips, and the resultant vehicle miles

traveled can be reduced. In addition to creating a more balanced and holistic community, modest environmental benefits may come from reduced vehicle miles traveled.

Stanislaus County encourages "smart growth," a concept to locate housing around a variety of transportation choices and create "walkable" and bicycle- and pedestrian-friendly neighborhoods. This concept is incorporated in all four applicable general plans. Alternative modes of transportation are also promoted by these communities. Such concepts are designed to have a positive effect on the jobs/housing balance, while reducing vehicle trips within the communities.

Job/housing balance is also addressed in the three cities' general plans. City of Modesto has set a goal for jobs/housing balance by facilitating business growth and encouraging the economic revitalization of the downtown. The City of Riverbank encourages compact development, mixed-use designations, and more balanced circulation. The City of Oakdale plans to develop a compact community form that incorporates smart growth principles.

The 2010 U.S. Census gathered information on the amount of time that people spent commuting to and from the workplace, which in turn gives a general idea of those in the population who work and live within the same area. As of 2010, an estimated 198,972 people in Stanislaus County were over age 16 and employed. According to the 2010 U.S. Census, the average commute time of Stanislaus County workers is 24.5 minutes. As shown in Table 3.1.4.1-6, travel time of the workers in each census tract ranges from 23.9 minutes (4.04, Modesto) to 31.6 minutes (28.02, unincorporated). Workers in 10 of the 12 census tracts have higher average commute times than that of workers within the county. The project would reduce commute times for long-distance commuters.

In general, as the jobs/housing balance efforts help reduce commuting times and vehicle trips, shorter commute times may indicate a higher jobs/housing balance as a whole; those who have lengthy commute times do not contribute to a balance of housing and jobs.

Table 3.1.4.1-6: Commute Times

Jurisdiction	Average Commute Time to Work (minutes)
County	
Stanislaus County	24.5
Affected Communities	
City of Modesto	22.7
City of Oakdale	26.3
City of Riverbank	27.9
Study Area Census Tracts	
Census Tract 1.02 (Unincorporated)	24.1
Census Tract 2.02 (Oakdale)	28.1
Census Tract 2.03 (Oakdale)	27.6
Census Tract 3.03 (Riverbank)	27.9
Census Tract 3.04 (Riverbank)	26.2
Census Tract 4.02 (Unincorporated /Modesto)	29.9
Census Tract 4.03 (Modesto)	27.2
Census Tract 4.04 (Modesto)	23.9
Census Tract 5.01 (Unincorporated)	28.3
Census Tract 5.05 (Modesto)	24.9

Jurisdiction	Average Commute Time to Work (minutes)
Census Tract 5.06 (Modesto)	25.7
Census Tract 28.02 (Unincorporated)	31.6

Source: U.S. Census Bureau 2010

Economic Conditions

Transportation projects can have important effects on the community and regional economies of a given community. This section provides a general economic overview of the region, and discussion of business activities, employment, and fiscal conditions of the study area. Also, it includes an examination of the businesses in the project area. Variables and data used in this economic evaluation include land use designations, employment, and income data from the U.S. Census Bureau.

The leading industry in Stanislaus County is agriculture, which generates an annual gross value in excess of a billion dollars into the local economy. This initial value of farm production has a ripple, or multiplier, effect in the economy by generating related activities, such as food processing, retail and wholesale trade, marketing, transportation, and related services. Located in the Central Valley, Stanislaus County consistently ranks among the top 10 agricultural counties in the state. In recent years, while its economic base remains mainly agricultural, the county's economy is diversifying. This change is largely associated with the population growth, especially in the incorporated urban areas of Modesto, Riverbank, and Oakdale.

According to 2010 U.S. Census data, industries providing the most employment in Stanislaus County are education, health and social services, retail trade, manufacturing, art, entertainment, recreation, accommodation, and food services.

Commercial, industrial, residential, and agricultural land uses are within and surrounding the project area. A mix of land use within the study area includes residential, business park commercial, regional commercial, industrial, and mixed-use development. Segment 1 of the project area consists of residential, commercial, civic, and industrial/business park. In Segment 2, Alternatives 1A and 1B border the City of Oakdale's South Oakdale Industrial Specific Plan area, and land uses along Alternatives 2A and 2B consist of agricultural lands. In Segment 3, Alternatives 1A and 2A pass the City of Oakdale's Sierra Pointe Specific Plan area, where residential, park and open space, and mixed-use corridor land uses are planned. Alternatives 1B and 2B are farther east, passing through mainly agricultural lands.

Farmlands in the study area include Prime Farmland and Farmland of Statewide Importance. Agricultural land uses are present throughout the project area, but more concentrated in Segments 1 and 3.

Employment and Income

Income

Median household income is the middle value of all incomes arranged from highest to lowest in a selected geographical area. The most recent data for the study area is from 2010. As shown in Table 3.1.4.1-7, the median household incomes of residents in California and Stanislaus County are $57,708 and $53,261, respectively. Median household income in the study area varies from $41,961 (census tract 3.04, Riverbank) to $92,917 (census tract 1.02,

unincorporated), and 10 of the 12 contiguous census tracts of the North County Corridor have higher median household incomes than that of the county.

The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. According to the 2010 U.S. Census data, 19.9 percent of the population in Stanislaus County lives in poverty. Poverty rate varies from 2.97 percent (census tract 1.02, unincorporated) to 26.16 percent (28.02, unincorporated), and nine of the 12 contiguous census tracts have a lower poverty rate than that of the county. The percentage of population in poverty is shown in Table 3.1.4.1-7.

Employment

Since 2010, the unemployment rate has substantially decreased for Stanislaus County. Unemployment data is not available at the census tract level (U.S. Census Bureau, 2010). Based on data from the U.S. Bureau of Labor Statistics, the unemployment rate in Stanislaus County increased from 15.8 percent in 2009 to 17.3 percent in 2010, and then steadily decreased to 13.0 percent in 2013. This decrease in unemployment is likely a result of the economic recovery after the global financial crisis in 2008. Table 3.1.4.1-8 shows unemployment statistics for the county.

Table 3.1.4.1-7: Median Household Income

Jurisdiction	Median Household Income	% Population in Poverty
California	$57,708	15.80%
County		
Stanislaus County	$53,261	19.90%
Affected Communities		
City of Modesto	$47,983	20.39%
City of Oakdale	$59,842	9.43%
City of Riverbank	$58,308	14.86%
Study Area Census Tracts		
Census Tract 1.02 (Unincorporated)	$92,917	2.97%
Census Tract 2.02 (Oakdale)	$57,070	13.77%
Census Tract 2.03 (Oakdale)	$54,106	12.49%
Census Tract 3.03 (Riverbank)	$59,303	17.09%
Census Tract 3.04 (Riverbank)	$41,961	24.96%
Census Tract 4.02 (Unincorporated / Modesto)	$73,980	9.60%
Census Tract 4.03 (Modesto)	$59,412	10.82%
Census Tract 4.04 (Modesto)	$53,088	7.90%
Census Tract 5.01 (Unincorporated)	$82,895	5.67%
Census Tract 5.05 (Modesto)	$54.552	22.73%
Census Tract 5.06 (Modesto)	$46,778	15.27%
Census Tract 28.02 (Unincorporated)	$51,422	26.16%

Source: U.S. Census Bureau 2010

Table 3.1.4.1-8: Annual Unemployment Rate

	Unemployment Rate				
	2009	**2010**	**2011**	**2012**	**2013**
Stanislaus County	15.8%	17.2%	16.7%	15.1%	13.0%

Source: U.S. Bureau of Labor Statistics,2009-2013

Business Activity

The economy of Stanislaus County is centered largely on agriculture. High-volume employers within and surrounding the study area are likely concentrated around the urban centers in the cities of Modesto, Riverbank, and Oakdale. According to Employment Development Department's annual data for 2010, the estimated labor force in Stanislaus County consisted of 239,800 people, of whom 82.7 percent were employed (198,300 people). Table 3.1.4.1-9 shows labor force distribution by occupation for civilian labors in the study area based on 2010 U.S. Census data.

The 12 contiguous census tracts of the North County Corridor show broadly similar trends in employment categories compared to the county. As listed in Table 3.1.4.1-9, 18.01 percent (census tract 2.03, Oakdale) to 23.27 percent (census tract 28.02, unincorporated) of people in each census tract have occupations in the educational, health and social services, making this category the largest in nine of the 12 census tracts. Other large occupational categories in the study area include retail, food manufacturing, construction, professional services, and entertainment and recreation.

Census tracts 1.02 and 28.02, both in the unincorporated areas that cover Segments 2 and 3 of the study area, have the highest proportion of people (7.43 percent and 9.84 percent, respectively) with occupations in agriculture. Major employers in the county include county government, food-production private businesses, hospitals, schools and universities, publishers, and electric companies.

Table 3.1.4.1-9: Annual Unemployment Rate

Occupation	Agriculture, Forestry, Fishing, Hunting, Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation, Warehousing, Utilities	Information	Finance, Insurance, Real Estate, Rental and Leasing	Professional, Scientific, Management, Administrative, Waste Management Services	Educational, Health and Social Services	Arts, Entertainment, Recreation, Tourism, Accommodation, Food services	Public Administration	Other, Except Public Administration
County													
Stanislaus County	5.7	7.4	13.4	4.6	13.11	4.7	1.3	3.6	6.9	22.6	7.6	3.8	5.3
Affected Communities													
City of Modesto	1.5	7.7	11.4	4.9	15.0	4.3	1.0	4.1	7.3	25.4	8.6	4.4	4.6
City of Oakdale	2.8	9.8	16.8	3.2	11.4	4.6	2.5	3.7	6.0	18.5	9.7	4.1	7.1
City of Riverbank	3.3	8.5	19.5	4.1	13.0	3.8	1.6	6.2	6.3	18.6	7.3	4.8	3.2
Study Area Census Tracts													
Census Tract 1.02 (Unincorporated)	7.4	4.6	8.5	3.3	7.4	6.2	0	7.9	7.6	18.7	6.0	17	5.5
Census Tract 2.02 (Oakdale)	4.3	7.0	9.3	4.8	21.5	2.7	5.3	3.0	5.7	22.8	9.4	2.5	4.4
Census Tract 2.03 (Oakdale)	1.4	11.4	21.0	2.3	8.3	4.2	5.0	3.4	7.4	18.0	9.0	4.5	4.2
Census Tract 3.03 (Riverbank)	5.3	10.1	19.1	3.6	15.0	2.5	0.4	4.8	9.0	15.0	7.5	5.4	2.4
Census Tract 3.04 (Riverbank)	1.7	7.9	13.6	4.1	10.8	3.7	2.8	9.3	7.5	21.0	6.4	6.0	5.5
Census Tract 4.02 (Unincorporated/Modesto)	1.7	7.9	13.6	4.1	10.8	3.7	2.8	9.3	7.5	21.0	6.4	6.0	5.5
Census Tract 4.03 (Modesto)	0.5	5.3	11.9	7.7	15.5	6.8	4.1	4.3	8.0	22.7	6.0	4.1	3.3
Census Tract 4.04 (Modesto)	1.0	13.0	9.5	1.8	14.2	6.0	2.3	4.4	10.3	20.9	10.8	3.3	2.8
Census Tract 5.01 (Unincorporated)	3.3	7.0	5.6	3.2	19.3	7.6	2.0	5.2	7.9	18.7	10.3	4.9	4.7

Occupation	Agriculture, Forestry, Fishing, Hunting, Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation, Warehousing, Utilities	Information	Finance, Insurance, Real Estate, Rental and Leasing	Professional, Scientific, Management, Administrative, Waste Management Services	Educational, Health and Social Services	Arts, Entertainment, Recreation, Tourism, Accommodation, Food services	Public Administration	Other, Except Public Administration
Census Tract 5.05 (Modesto)	4.9	5.2	9.7	7.3	12.5	7.3	2.3	4.7	3.2	21.3	9.6	6.9	5.1
Census Tract 5.06 (Modesto)	2.3	3.5	12.6	2.2	23.6	6.4	1.6	4.9	5.5	22.5	6.2	4.0	5.0
Census Tract 28.02 (Unincorporated)	9.8	9.8	13.1	4.4	8.5	8.7	0.5	2.1	10.1	23.3	5.0	1.0	3.8

Source: U.S. Census Bureau 2010

Fiscal Conditions

Property taxes generally are the biggest revenue source for counties and cities. Property tax is imposed on real property based on the assessed value of the property and allocated by tax rate areas throughout the county. The approximate median value for a residential property in Stanislaus County is $208,000. The approximate median value for residential properties per community within the study area as follows: Modesto $196,000, Riverbank $207,100, and Oakdale $256,000 (Draft Relocation Impact Report, 2016, and Final Relocation Impact Statement, 2019).

The project location consists of low-density urban development and agricultural lands. No great number of firms or major firms would be relocated as a result of the project.

Community Facilities

Figure 3.1.4.1-1, in Appendix A, shows all community facilities and emergency service stations in the project study area.

Schools

The study area is served by four school districts: Stanislaus Union, Sylvan Union, Riverbank Unified, and Oakdale Joint Unified. There are 88 public schools, private schools, day-care facilities, kindergartens, colleges, and professional training schools within the Secondary Impact Area. None of these facilities are located within the project area.

Community Centers

Community centers contribute in many ways to community cohesion. Community centers provide community members a means to interact with each other. There are 19 community centers in the Secondary Impact Area. No community facility is located within the project area. The project would not affect the community's ability to use these community centers. Circulation in the project study area would increase after construction of the project, which would allow community members in the study area to access these community centers more easily.

Religious Institutions

Approximately 108 religious institutions sit within the Secondary Impact Area, four within the project study area. Locations of religious institutions are shown in Figure 3.1.4.1-1, in Appendix A.

Four of these institutions are within the project study area. Implementation of the project would require relocation of the Seed of Joy Worship Center and the Living Faith Community Church. The Seed of Joy Worship Center is at 536 Kiernan Avenue in Modesto. Congregation size of this institution is unknown. The Living Faith Community Church is at 4825 Roselle Avenue in Modesto. The Living Faith Community Church also shares part of its facility with another religious worship service, the Iglesia Emmanuel De Riverbank. Together, these two services have a congregation size of 150 people.

The Kingdom Hall of Jehovah's Witnesses is at 4940 Claus Road in Modesto (located within the project study area). Congregation size is unknown.

Environmental Consequences

Alternatives 1A, 1B, 2A, and 2B have generally the same environmental consequences, so they are discussed together below.

Build Alternatives 1A, 2A, 1B and 2B

Population Characteristics

The proposed project aims to improve access within and between the communities of Modesto, Riverbank, and Oakdale by constructing new, or improving the existing, roadway between the Tully Road/Kiernan Avenue intersection and SR-108/SR-120. The project is designed to minimize interruption to the existing communities by using existing roadway corridors and sparsely populated urban fringe lands. Although the project would result in improved accessibility in surrounding communities, it would not create access to a previously inaccessible area. Currently, these areas are accessible via local roads; as stated above, the project would result in improved accessibility, not new access. The project was designed to accommodate both local and regional current and future population growth and transportation needs. The project is unlikely to influence the regional population characteristics, such as race, age, and income distribution on its own.

Neighborhoods/Communities/Community Character

Generally, major transportation projects tend to disrupt the cohesion of communities by directly affecting pedestrian, bicycle, and vehicular circulation. Also, travel patterns residents use to interact are disrupted because transportation projects are typically intended to serve a larger geographical area than a single neighborhood or community. Transportation projects can diminish community cohesion through the alteration, relocation, and/or closure of locally important institutions or businesses. Transportation projects can also create physical or psychological barriers or impediments to interaction, dividing cohesive communities. Finally, transportation projects can change access routes and disrupt corridors regularly used by residents to obtain necessary goods and services in a timely manner.

But transportation projects are not always disruptive. Often, transportation projects are a primary means of connecting communities through improved circulation. This includes improving pedestrian circulation, which can increase community cohesion through the creation or facilitation of new networks of contacts and different types of interactions.

From a community character standpoint, all Build Alternatives would directly reduce congestion along the existing SR-108, indirectly reduce congestion on roads in the study area, and improve public access to community facilities for residents. This would be achieved by easing congestion overall within the region during peak hours, including within the cities of Modesto, Riverbank, and Oakdale, and improving connectivity between these communities.

In addition, traffic currently passing between communities by way of local streets and the existing SR-108 would be directed to the North County Corridor. The decrease in automobile queuing (backups) and reduction in noise from braking and accelerating would enhance the small-town characteristics of local roadways in the cities of Riverbank and Oakdale, and improvements to air quality would benefit all communities in the study area. By expanding and constructing the North County Corridor and associated features, the project would result in an increase in urban features in the project area.

Segment 1 of the study area is largely urbanized, despite the agricultural uses surrounding the cities. There are no cohesive neighborhoods in the project area; therefore, no neighborhoods would be divided as a result of the project. The project would not create new geographic or social barriers that may hinder interaction in the study area because it is an improvement of an already existing transportation corridor mostly following an existing facility in Segment 1. Segments 2 and 3 of the study area are largely agricultural lands and would be separated by the proposed new North County Corridor. Within Segments 2 and 3 are scattered rural residences, so no neighborhoods would be impacted. The higher traffic volumes on the North County Corridor would create more urbanized characteristics along the corridor; however, given the scattered population and rural environment in Segments 2 and 3, no substantial effects would occur.

The North County Corridor would be a freeway/expressway with controlled access; it would provide entry and exit only at major crossroad intersections; therefore, private parcels and certain local roads that currently have access to major roads would no longer have direct access to the North County Corridor. Frontage roads will be included as a part of the project to provide access to parcels in the study area. Access to parcels on major crossroads of the North County Corridor may be changed to right-in right-out due to the installation of center median. Cul-de-sacs or overcrossings will be installed at locations where road termination to North County Corridor is required. In general, residents and businesses closer to the North County Corridor would experience a greater change to their travel patterns because they will be redirected to frontage roads and entry points of the North County Corridor. The North County Corridor will improve overall regional circulation by reducing traffic on local roads. This change would not result in substantial impacts to community character throughout the study area.

From a community cohesion standpoint, all Build Alternatives of the North County Corridor would not be considered a substantial change to the existing separation formed by Kiernan Avenue and Claribel Road, because all Build Alternatives of the North County Corridor pass between the cities of Modesto and Riverbank, and along the end east of the City of Oakdale. Established communities within these cities would not be separated by this corridor, so they would not experience any significant change in community cohesion.

Housing

Federal and state laws (the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, also known as the Uniform Relocation Act, and California Government Code, Chapter 16, Section 7260, et seq.) require that relocation assistance be provided to any person, business, farm, or nonprofit operation relocated because of the acquisition of real property by a public entity for public use.

Implementation of the project would not substantially disrupt any existing rural residential communities, but it would relocate people and businesses through land acquisition. The project would also require permanent easements for the local access roads.

Implementation of the project would relocate people and businesses through land acquisition. Residential relocations would include a number of parcels as shown below:

- Alternative 1A – 124
- Alternative 1B – 114
- Alternative 2A – 136
- Alternative 2B – 114

Impacts associated with housing would be considered during alternative selection. Residents relocated by the project would be relocated to suitable replacement sites in the cities of Modesto, Riverbank, Oakdale, and Ceres, as well as the communities of Salida and Empire. Available housing in these communities would be adequate to meet the replacement needs generated by the project. Residential relocations and housing impacts associated with implementation of the project are explained in Section 3.1.4.2, Relocations.

Economy

Construction of the project would require conversion of residential, commercial, industrial, and agricultural lands to public right-of-way to accommodate the proposed expansion of roadway. The project would pose impacts to a wide range of business uses, including retail, restaurant, automotive, office, and consumer services. All Build Alternatives would directly affect 5 manufacturing, 8 retail, and 13 service businesses. These businesses are shown in Table 3.1.4.1-10. Most of these businesses are in Segment 1 of the project.

Table 3.1.4.1-10: Businesses Affected by the Project

Manufacturing
Manufacturing and Junk Yard business (name not identified)
Mobility Plus – Home Medical Equipment
Garage Door Manufacturing (name not identified)
KB Farm Fab and Welding
Banbacigno Steel Co., Inc.
Retail
Showcase Auto Sales, Inc.
Empire Sportsmen's Association and Casino
Burrito To Go Mexican Restaurant
Storage/Office (name not identified)
Distribution warehouse (name not identified)
Ray's Carpet
Boyett gas station & Cruisers convenient store
Taco Bell
Truck Sales and Rentals (name not identified)
Service
K Zone (batting cages)
Conway's Personal Training
Modesto Auto Service
America's Radiator Service
Modesto Transmission Service
Upholstery Service (name not identified)
Window Tinting Service (name not identified)
Car Tech Synergy
Seed of Joy Church
DMMAF
Auto Service (name not identified)
Leisure RV Storage

The Living Faith Church/The Iglesia Emmanuel De Riverbank

Source: Draft Relocation Impact Report, 2016, and Final Relocation Impact Statement, 2019

Under Alternative 1B, approximately 130 acres of Conagra Brands, Inc. (Conagra) northern irrigation land would be removed and potentially have its water irrigation access impacted from the interchange, frontage roads, and changed in grade. Displaced businesses would be relocated within the county. Businesses requiring relocation will be provided relocation assistance payments and advisory assistance in accordance with the Caltrans Relocation Assistance Program (RAP), based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 CFR Part 24. See details below in Section 3.1.4.2, Relocation.

The project is designed to accommodate future population and economic growth in northern Stanislaus County. Implementation of the North County Corridor would benefit businesses in the study area by reducing travel times, increasing the average operating speeds, and improving travel time reliability. The project would also improve goods movement efficiency at a regional level, which would strengthen the agricultural and general economy of Stanislaus County.

Employment and Income

While transportation projects generally do not result in the creation of significant permanent new jobs within a community, they may affect employment in positive or negative ways. The project would not have adverse impacts on businesses in the Secondary Impact Area, except for minor disruption to circulation that may occur during project construction. The project would not cause disproportionate impacts on low-income or minority residents.

After construction, the North County Corridor would improve circulation in the study area, which would create an environment beneficial to businesses in the study area. Commuting would be improved for local and interregional employees and employers. No large business or employment centers will be relocated by the North County Corridor. No substantial adverse effects to employment would occur.

Business Activity

Changing travel patterns in the study area may in result in changes to business activities in the region. Businesses in the vicinity of the project are concentrated in the cities of Modesto and Riverbank, along Claribel Road (Segment 1), and scattered in Segments 2 and 3.

The North County Corridor would improve the movement of people, goods, and recreation by providing a new east-west transportation facility. Once the project is completed, interregional commuters and truck traffic would be directed away from local streets. Businesses along the future North County Corridor would benefit from increased visibility and improved circulation. Businesses farther from the North County Corridor would have decreased exposure due to smaller traffic volumes. Implementation of the North County Corridor would result in improved accessibility to businesses, higher level of service along local streets, reduced queuing (traffic backups), and improved air quality. As a result, efficiency in local communities would increase, creating a better business environment.

To maintain access to all parcels, the North County Corridor project would include frontage roads. Access to parcels along major crossroads of the North County Corridor may be changed

to right-in right-out due to the installation of a center median. Class 3 bike routes would be accommodated along Segments 2 and 3 of the main corridor, and pedestrian access including sidewalks and crosswalks would be provided along all crossroads in Segment 1 and at locations of existing pedestrian access in Segments 2 and 3.

The project would acquire new right-of-way and easements to improve existing roadway or construct new roadways. Implementation of the project would require partial or full acquisition of business parking spaces. Some business parking spaces may be temporarily affected during construction and the project would also permanently remove public on-street parking along McHenry Avenue, south of the McHenry Avenue/Kiernan Avenue intersection.

Approximately 33 businesses would be relocated by the project, which is 50 percent of the businesses within the project limits. Business relocations are discussed in Section 3.1.4.2, Relocations. In general, the project would not result in substantial permanent impacts to businesses in the study area as they would be able to find suitable replacement sites nearby. Some of the businesses would be completely acquired while others would only have a small portion of their property acquired, allowing those business to continue operating.

Fiscal Conditions

Removal of residential and business property due to the project could result in losses to property and sales tax revenue for the local jurisdictions in which the removal takes place. Non-residential acquisitions would be required, as shown below:

- Alternative 1A – 36
- Alternative 1B – 33
- Alternative 2A – 42
- Alternative 2B – 38

Suitable replacement sites for business and residential property in the cities of Modesto, Riverbank, Oakdale, and Ceres, as well as the communities of Salida and Empire, would be adequate to meet the replacement needs generated by the project. All replacement areas are in Stanislaus County, so relocated residents and businesses would not be removed from the tax base of Stanislaus County.

Partial acquisition of properties by a project does not usually affect tax revenue unless the use of the parcel is substantially affected. Implementation of the proposed project would improve goods movement efficiency at a regional level, create a beneficial business environment, and stimulate future economic growth in nearby communities.

Community Facilities

Community facilities in the project area consist of four religious institutions. To accommodate the expanded roadway, the construction of the North County Corridor would require relocation of the Seed of Joy Worship Center, the Living Faith Community Church, and the Iglesia Emmanuel De Riverbank. Also, the Project would require partial right-of-way acquisition of the parcel on which the Kingdom Hall of Jehovah's Witnesses is located, though the main structures of this facility would not be affected. Access to this property will be maintained through frontage roads. Long-term impacts to the property include loss of approximately 15 parking spaces on

the west side of the parking lot and possible increased traffic noise resulting from the widening of the existing right-of-way. Because all four of these institutions are in Segment 1 of the project, where all alternatives share the same alignment and design, the selection of an alternative would not result in different levels of impact to these institutions.

Temporary Construction Impacts

Implementation of the project would create temporary adverse impacts to communities along the North County Corridor, including construction-related access and circulation disruptions.

During construction, businesses within the study area could experience temporary disruptions to existing travel patterns. A Traffic Management Plan will be implemented to minimize disruption. Businesses within the project area may experience temporary impact associated with air quality, noise, and modified access. Measures will be implemented to avoid and minimize such impacts. Construction of the North County Corridor will be completed in stages and with the use of detours, so traffic disruptions to businesses in the study area would be temporary and not cause substantial adverse effects to businesses or the region's economy.

Construction of the proposed project may directly create new temporary construction jobs in the local communities and the surrounding region. Purchases by construction team members may also generate additional sales revenue in the community. Businesses and people relocated by the project would likely be moved to nearby communities, so the characteristics of local employment, labor force, and customer base would not change significantly.

During construction, businesses in the project area may temporarily experience increased noise levels and decreased air and visual quality. Businesses in the study area may experience temporary losses in sales due to modified access, lane restrictions, lane closures, or temporary detours. Such disruptions will be minimized with implementation of a Traffic Management Plan, which would include detour signage, public transportation information, construction timing, and other useful construction information for residents and motorists. Construction of the North County Corridor will be completed in stages and with the use of detours, so traffic disruptions to businesses in the study area would be temporary. Construction coordination and the Traffic Management Plan are discussed further in Section 3.1.6.

During construction, community facilities including the Kingdom Hall of Jehovah's Witnesses would experience short-term impacts from construction noise and dust.

No-Build Alternative

Under No-Build Alternative conditions, there would be no construction activities, no change would occur to the existing neighborhoods and communities in the study area. No relocations of people, businesses, or community facilities would take place, and no jobs would be created or moved from the study area. Traffic congestion would continue to worsen along Kiernan Avenue/Claribel Road and the existing SR-108. The existing SR-108 would continue to be used by drivers in the surrounding communities, and no pedestrian or bicycle facilities will be accommodated. Interregional traffic circulation would become increasingly constrained as travel times on the existing SR-108 increase as the result of projected residential and employment growth in the area. Traffic congestion on existing truck routes will continue to hinder the efficient movement of goods, lowering efficiency and increasing cost to industries such as manufacturing, food processing, wholesale trade, and retail trade. Therefore, the No-Build Alternative does not meet the purpose and need of the project.

Avoidance, Minimization and/or Mitigation Measures

Regional Population Characteristics

The project is unlikely to influence the regional population characteristics. No avoidance, minimization, and mitigation measures are necessary.

Neighborhoods/Communities/Community Character

A Transportation Management Plan will be implemented to provide minimization measures for temporary disruption to circulation during construction. Discussion of the Traffic Management Plan is included in Section 3.1.6. Implementation of this minimization measure would reduce construction-related access and circulation disruptions.

Housing

Housing for persons who will be subject to relocation is discussed in Section 3.1.4.2, Relocations and Real Property Acquisitions.

Economic Conditions

To minimize and mitigate business parking impacts, project team members will conduct meetings with owners of affected businesses during the final project design phase and assess the parking needs for each business. Parking spaces including on-street parking, public parking lot, or private parking areas, would be accommodated where feasible. Parking and transit studies will be done during the final phase of project design, and necessary parking facilities will be accommodated at feasible locations accessible by motorists and public transit users.
A Traffic Management Plan will be implemented to provide minimization measures for temporary disruption to circulation during construction. Discussion of the Traffic Management Plan is included in Section 3.1.6.

Avoidance, minimization, and mitigation measures for residential and non-residential relocations are discussed in Section 3.1.4.2, Relocations and Real Property Acquisitions.

Community Facilities

Impacts to community facilities and utilities associated with Alternative 1B will be released to the public through the project media campaign. Owners of parcels subject to acquisition would be contacted by Caltrans Right of Way agents.

Displacement and relocation of the religious institutions are discussed in Section 3.1.4.2, Relocations and Real Property Acquisitions.

3.1.4.2 Relocations and Real Property Acquisitions

Regulatory Setting

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code

of Federal Regulations Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. See Appendix E for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S. Code 2000d, *et seq*.). See Appendix D for a copy of the Caltrans Title VI policy statement.

Affected Environment

A Draft Relocation Impact Report (DRIR) for the North County Corridor New SR-108 Project was completed in January 2016 and a Final Relocation Impact Statement was completed in March 2019 and is summarized below.

The project area encompasses the cities of Modesto, Riverbank, and Oakdale, and areas of unincorporated Stanislaus County. The west end of the corridor starts at Tully/SR-219 Kiernan Avenue on the northern border of the City of Modesto, goes east through southern Riverbank along Claribel Road, and continues northerly through the City of Oakdale, connecting to the SR-108/SR-120.

While the area is mostly agricultural, it encompasses a wide range of residential and commercial properties, including single-family residences (SFRs), multiple-family residences (MFRs), mobile homes, and commercial uses, including industrial, commercial, retail, and farmland. A description of the area, general occupancy characteristics, neighborhood, amenities, access, and facilities are provided (by segment) below.

The area within the western portion of the alignment (Segment 1) along Kiernan Avenue extends from Tully Road about 5 miles to the vicinity of Claus Road in the City of Riverbank. The area includes a mix of commercial, industrial and retail property uses, including large industrial/warehouses near Pentecost Drive, commercial-retail and industrial uses near McHenry Avenue, residential uses in the vicinity of Coffee Road, retail uses in the vicinity of Oakdale Road, and mostly agricultural uses toward Claus Road.

In between these commercial and residential areas, the area consists mostly of farmland, large industrial yards, and vacant land areas. Access is provided by a network of two-lane roads such as Claribel Road, Coffee Road, Oakdale Road, Roselle Avenue, and existing McHenry Avenue/SR-108, which functions as the main west-east “main street” going through the downtown areas of Modesto, Oakdale, and Riverbank.

Retail businesses along Kiernan Avenue, between Stratos Way and McHenry Avenue, include an auto sales lot, a casino, and a gas station. There are single-family homes between McHenry Avenue and Coffee Road, as well as mobile homes that could be affected are at the Morningside Mobile Home Park, between Coffee Road and Oakdale Road.

The middle portion of the proposed alignments (Segment 2) is near Claribel Road/Claus Road in Riverbank and extends northerly about 6 miles to the vicinity of Albers Road/Oakdale Waterford Highway near Oakdale. While there are various alignments under consideration within Segment 2, the area is mostly farmland and includes some residential and industrial/agricultural uses.

The area east of Riverbank consists of a sparsely populated local agricultural community. Access is provided by a network of two-lane roads such as Claribel Road, Claus Road, Patterson Road and Albers Road. These three roads provide access to regional travel via SR-108 heading to Modesto, Oakdale, and Riverbank.

The area in the eastern portion of the proposed alignment (Segment 3) extends from the vicinity of Albers Road/Oakdale Waterford Highway near Oakdale about 6 miles to the vicinity of SR-120. Various alignments are being considered in Segment 3. The area is mostly farmland, but includes some single-family homes and industrial/agricultural uses. The area consists of mixed-use properties including single-family homes within farmland. Access to SR-108 is provided by a network of two-lane roads such as Stearns Road, Warnerville Road, and Sierra Road.

Environmental Consequences

Build Alternatives 1A, 1B, 2A, and 2B

Residential

In Table 3.1.4.2-1, the residential occupancy types (owner/tenant) of the estimated residential relocation units by Build Alternative are provided in five categories: Owner Occupants of Single-Family Residences, Tenant Occupants of Single-Family Residences, Occupants of Multiple-Unit Residences, Owner Occupants of Mobile Homes, and Tenant Occupants of Mobile Homes.

The table also provides the total of residential relocations and ratio of owner/tenant impacts. Statistics for the number of persons per household are based on preliminary information provided by U.S. Census data for the cities of Modesto, Oakdale, and Riverbank. The actual numbers of affected occupants would be accurately identified at the time of residential interviews during the right-of-way phase of the project.

The various tables in this section show the number of properties requiring full property acquisition, which would require owner/tenants to relocate as a result of the project's right-of-way needs.

Table 3.1.4.2-1: Estimated Relocations of Residential Units by Alternative

	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
Single-Family Residences	72	68	88	74
Duplex/Triplex (2 or 3 units)	0	0	2	2
Apartments (4 or more units)	30	30	30	30
Sleeping Rooms/Shared Quarters	0	0	0	0
Mobile Homes	22	16	16	8
Tenant Impact/Owner Ratio	72% Tenant 28% Owner	71% Tenant 29% Owner	70% Tenant 30% Owner	67% Tenant 33% Owner
Total Persons (average number/ household)	2.87/356	2.87/327	2.87/390	2.87/327
Total Relocations	**124**	**114**	**136**	**114**

*Source Draft Relocation Impact Report, 2016, and Final Relocation Impact Statement, 2019

Based on analyses of the data concerning replacement housing, adequate resources for residential relocations exist in Modesto, Riverbank, and Oakdale, as well as Ceres, Salida and Empire. Ceres is about eight miles south of the project area at the western end of the proposed alignment. Empire is about seven miles southeast of the project area at the western end of the proposed alignment, and Salida is about four miles west of the project area on the western end of the proposed alignment. All replacement housing is within Stanislaus County.

A total of 453 housing units, including single-family homes, multi-family residences, condominiums, and mobile homes for sale and rent are available in Modesto, Oakdale, Riverbank, and Ceres. Also, preliminary research indicates that several mobile home parks and rental housing provided under Section 8 of the Housing Act of 1973 for low-income households exist within these areas, and would provide adequate replacement housing resources. The relocation areas are generally comparable to the neighborhoods from which residents will be relocated in terms of amenities, public utilities, accessibility to public services, transportation, and public facilities. Residents who have met eligibility requirements will be provided relocation assistance payments and advisory assistance in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the proposed project's Relocation Assistance Program.

The Relocation Assistance Program mandates that no residential occupant shall be relocated without receiving functionally equivalent replacement housing that is within their financial means. Advance replacement housing payments may be necessary to assist residents to be relocated in qualifying for leases or loans. The average range of lease prices surveyed in the replacement area is estimated to be from $585 to $1,675 for multi-family residential units and $600 to $4,300 for single-family housing units.

Businesses

The project poses substantial impacts to a wide range of businesses, including retail, restaurant, automotive, office, and consumer services. According to data provided in the Draft Relocation Impact Report, Alternative 1A would directly affect 21 commercial businesses, 5 industrial/manufacturing businesses, and 10 agricultural farms. Alternative 1B would directly affect 21 commercial businesses, 5 industrial/manufacturing businesses, and 7 agricultural farms. Alternative 2A would directly affect 21 commercial businesses, 5 industrial/manufacturing businesses, and 16 agricultural farms (see Table 3.1.4.2-2). Alternative 2B would directly affect 21 commercial businesses, 5 industrial/manufacturing businesses, and 12 agricultural farms. Fifteen of these businesses have had occupancy for over 15 years. Most businesses affected by the project would be considered small businesses, which would require cost-effective smaller replacement sites with proximity to established customer bases. Some larger businesses, including manufacturing, industrial, and agricultural farms, would also be affected. Several of these larger non-residential relocations, including agricultural farms, may be potential candidates for extensive advisory services. See Table 3.1.4.2-2 below.

Table 3.1.4.2-2: Non-Residential Impacts

	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
Commercial Businesses	21	21	21	21
Industrial/Manufacturing Businesses	5	5	5	5
Nonprofit Organizations	0	0	0	0
Agricultural/Farms	10	7	16	12
Total	**36**	**33**	**42**	**38**

*Source: Draft Relocation Impact Report, 2016, and Final Relocation Impact Statement, 2019

Ample space is available in the current real estate market, and both purchase prices and lease rates are competitive within the region to accommodate those needs. Businesses that have been in operation for more than 10 years could have long established local clientele loyalties and site identities that may entail some additional difficulties for relocation.

Additionally, certain types of businesses may hold a particular niche in the community and may have built up a fair amount of repeat business based on customers pleased with their services, and they may rely on their recommended referrals. Most businesses properties directly affected by implementation of any of the build alternatives would be able to find suitable replacement sites nearby.

Employees of the relocated businesses may face challenges such as unemployment or increased fuel and living costs. Also, temporary closure of businesses during relocation may cause temporary layoffs of employees.

Various types of agriculture are anticipated to be affected by all four Build Alternatives under consideration. Due to the frequency of mixed-use properties (farmland and residential) in the area, it is anticipated that businesses, residential owners and tenants, and employees working on a farmland would be relocated. In addition, disruption to critical structures such as irrigation lines and other facilities vital to farm activities are anticipated. Partial impacts to these facilities have the potential to render affected commercial farms as fully relocated. Under Alternative 1B, approximately 130 acres of Conagra northern irrigation land would be removed and potentially have its water irrigation access impacted from the interchange, frontage roads, and changed in grade. The types of impacted agricultural lands are shown in Table 3.1.4.2-3.

Based on preliminary research, Alternative 2A would result in the most impact on the number of farmland parcels.

Table 3.1.4.2-3: Types of Agriculture Farms Affected

Types of Agriculture	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
Row Crops	2	2	3	2
Trees	5	3	7	5
Livestock	1	1	1	1
Other	2	1	5	4
Total Number of Agriculture Farms	**10**	**7**	**16**	**12**

*Source: Draft Relocation Impact Report, 2016, and Final Relocation Impact Statement, 2019

It is anticipated that elderly households (households with persons over 65 years of age), low-income households, minority households, and households with disabled residents would be affected by the project. It is also anticipated that the project would potentially relocate marginal and minority-owned businesses. See Section 3.1.4.3. below, for a discussion of Environmental Justice.

In general, the magnitude of the proposed project would be considerable under any of the four Build Alternatives under consideration. Alternative 2A would have the largest impact by requiring 136 residential relocations and 42 non-residential and farmland relocations, while Alternative 1B would have the least amount of impact by requiring 114 residential relocations and 33 non-residential and farmland relocations. See Table 3.1.4.2-4.

Table 3.1.4.2-4: Build Alternative Relocations

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
1	004-069-016	PA	PA	PA	PA	NA
2	004-069-033	PA	PA	PA	PA	NA
3	004-069-034	PA	PA	PA	PA	NA
4	004-069-014	PA	PA	PA	PA	NA
5	004-069-013	PA	PA	PA	PA	NA
6	004-069-012	PA	PA	PA	PA	NA
7	046-006-008	PA	PA	PA	PA	NA
8	046-006-009	PA	PA	PA	PA	NA
9	046-006-010	PA	PA	PA	PA	NA
10	046-006-011	PA	PA	PA	PA	NA
11	046-012-005	PA	PA	PA	PA	NA
12	**046-012-001**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
13	046-001-012	PA	PA	PA	PA	NA
14	046-001-001	PA	PA	PA	PA	NA
15	004-071-029	PA	PA	PA	PA	NA
16	004-071-030	PA	PA	PA	PA	NA
17	004-071-028	PA	PA	PA	PA	NA
18	004-071-006	PA	PA	PA	PA	NA
19	004-019-006	PA	PA	PA	PA	NA
20	004-071-008	PA	PA	PA	PA	NA
21	004-057-011	PA	PA	PA	PA	NA
22	046-001-002	PA	PA	PA	PA	NA
23	004-057-010	PA	PA	PA	PA	NA
24	004-057-003	PA	PA	PA	PA	NA
25	004-057-004	PA	PA	PA	PA	NA
26	004-057-005	PA	PA	PA	PA	NA
27	**004-057-006**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (Junk Yard)**
28	RR0-00-	PA	PA	PA	PA	NA
29	004-097-019	PA	PA	PA	PA	NA
30	046-010-001	FA	FA	FA	FA	NA
31	**004-097-010**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (Storage / Office / Retail)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
32	**004-097-009**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (Storage / Office / Retail)**
33	**046-010-003**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Industrial (Manufacturing)**
34	**004-094-039**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (Batting Cage & Gym)**
35	004-094-029	PA	PA	PA	PA	NA
36	004-094-028	PA	PA	PA	PA	NA
37	004-094-003	FA	FA	FA	FA	NA
38	004-094-014	PA	PA	PA	PA	NA
39	**046-010-021**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial**
40	004-094-004	FA	FA	FA	FA	NA
41	004-094-005	FA	FA	FA	FA	NA
42	004-094-016	PA	PA	PA	PA	NA
43	004-094-032	PA	PA	PA	PA	NA
44	**046-010-008**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial**
45	**046-010-009**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial**
46	004-094-031	PA	PA	PA	PA	NA
47	046-010-024	PA	PA	PA	PA	NA
48	004-094-044	PA	PA	PA	PA	NA
49	004-094-043	PA	PA	PA	PA	NA
50	**004-094-009**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (Used Auto Sales)**
51	**046-010-025**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial (retail)**
52	**046-010-026**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial**
53	**046-010-027**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Commercial**
54	**004-094-010**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed Commercial & Residential**
55	**004-094-011**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
56	046-010-016	PA	PA	PA	PA	NA
57	046-010-018	PA	PA	PA	PA	NA
58	046-010-019	PA	PA	PA	PA	NA
59	004-094-012	PA	PA	PA	PA	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
60	004-094-041	PA	PA	PA	PA	NA
61	004-094-040	PA	PA	PA	PA	NA
62	004-094-033	PA	PA	PA	PA	NA
63	074-015-016	PA	PA	PA	PA	NA
64	074-015-015	PA	PA	PA	PA	NA
65	**074-015-018**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Farm**
66	074-015-017	PA	PA	PA	PA	NA
67	082-006-055	PA	PA	PA	PA	NA
68	082-006-053	PA	PA	PA	PA	NA
69	082-006-073	PA	PA	PA	PA	NA
70	082-006-072	PA	PA	PA	PA	NA
71	**082-006-033**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Industrial (Manufacturing)**
72	**074-015-003**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR & MH)**
73	**082-006-074**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
74	082-006-075	PA	PA	PA	PA	NA
75	074-015-014	FA	FA	FA	FA	NA
76	**074-015-006**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Industrial (Manufacturing)**
77	074-015-007	PA	PA	PA	PA	NA
78	**082-006-004**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
79	074-015-010	PA	PA	PA	PA	NA
80	082-006-056	PA	PA	PA	PA	NA
81	082-006-058	PA	PA	PA	PA	NA
82	Modesto Irrigation District-000-	PA	PA	PA	PA	NA
83	**082-004-013**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
84	**082-004-021**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
85	082-004-041	PA	PA	PA	PA	NA
86	Modesto Irrigation District-000-	PA	PA	PA	PA	NA
87	**082-004-030**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
88	**074-014-010**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
89	082-004-038	PA	PA	PA	PA	NA
90	082-004-039	PA	PA	PA	PA	NA
91	074-014-009	PA	PA	PA	PA	NA
92	082-004-036	PA	PA	PA	PA	NA
93	**074-014-008**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
94	082-004-035	PA	PA	PA	PA	NA
95	082-004-004	PA	PA	PA	PA	NA
96	074-014-007	PA	PA	PA	PA	NA
97	082-004-008	PA	PA	PA	PA	NA
98	082-004-005	PA	PA	PA	PA	NA
99	082-004-022	PA	PA	PA	PA	NA
100	**082-004-024**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
101	**083-002-015**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
102	**083-002-032**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
103	**083-002-034**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
104	**083-002-017**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
105	**083-002-016**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
106	083-002-002	PA	PA	PA	PA	NA
107	083-002-001	PA	PA	PA	PA	NA
108	083-002-042	PA	PA	PA	PA	NA
109	083-002-009	PA	PA	PA	PA	NA
110	083-002-041	PA	PA	PA	PA	NA
111	083-002-006	PA	PA	PA	PA	NA
112	083-002-020	PA	PA	PA	PA	NA
113	083-002-031	PA	PA	PA	PA	NA
114	083-002-021	PA	PA	PA	PA	NA
115	083-002-022	PA	PA	PA	PA	NA
116	083-002-023	PA	PA	PA	PA	NA
117	083-002-038	PA	PA	PA	PA	NA
118	**083-002-048**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
119	**083-002-025**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (Church & SFR)**
120	**083-002-024**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
121	083-002-028	PA	PA	PA	PA	NA
122	083-002-030	PA	PA	PA	PA	NA
123	083-002-029	PA	PA	PA	PA	NA
124	**083-002-037**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
125	**083-002-047**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
126	075-014-026	PA	PA	PA	PA	NA
127	075-025-010	PA	PA	PA	PA	NA
128	**075-025-007**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
129	**075-025-008**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
130	**075-025-009**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
131	084-001-023	PA	PA	PA	PA	NA
132	084-001-024	PA	PA	PA	PA	NA
133	084-001-028	PA	PA	PA	PA	NA
134	075-025-011	PA	PA	PA	PA	NA
135	084-001-029	PA	PA	PA	PA	NA
136	**084-001-025**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
137	084-001-026	PA	PA	PA	PA	NA
138	084-001-030	PA	PA	PA	PA	NA
139	084-001-027	PA	PA	PA	PA	NA
140	084-001-032	PA	PA	PA	PA	NA
141	075-025-012	PA	PA	PA	PA	NA
142	**075-025-018**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
143	075-025-020	PA	PA	PA	PA	NA
144	075-025-024	PA	PA	PA	PA	NA
145	**084-001-002**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
146	**075-025-019**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
147	**084-001-003**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
148	075-024-001	PA	PA	PA	PA	NA
149	**084-001-005**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
150	Modesto Irrigation District-000-	PA	PA	PA	PA	NA
151	**075-024-012**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR)**
152	075-024-011	FA	FA	FA	FA	NA
153	075-024-003	PA	PA	PA	PA	NA
154	075-024-002	PA	PA	PA	PA	NA
155	084-001-006	PA	PA	PA	PA	NA
156	075-024-005	PA	PA	PA	PA	NA
157	084-001-013	PA	PA	PA	PA	NA
158	**084-001-012**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Other (Self Storage Units)**
159	**084-001-008**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Residential (SFR & MH)**
160	075-024-009	FA	FA	FA	FA	NA
161	075-023-023	PA	PA	PA	PA	NA
162	075-023-005	PA	PA	PA	PA	NA
163	075-023-022	PA	PA	PA	PA	NA
164	075-023-021	PA	PA	PA	PA	NA
165	075-023-007	PA	PA	PA	PA	NA
166	014-001-030	FA	FA	FA	FA	NA
167	**014-001-002**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (Mobile Home)**
168	**014-001-027**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
169	075-022-032	PA	PA	PA	PA	NA
170	075-022-035	PA	PA	PA	PA	NA
171	075-022-021	PA	PA	PA	PA	NA
172	062-031-005	PA	PA	PA	PA	NA
173	014-001-015	PA	PA	PA	PA	NA
174	014-001-031	PA	PA	PA	PA	NA
175	014-001-023	PA	PA	PA	PA	NA
176	014-001-019	PA	PA	PA	PA	NA
177	014-001-012	PA	PA	PA	PA	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
178	**062-031-004**	**PA, R**	**PA, R**	**PA**	**PA**	**Residential (SFR)**
179	014-001-011	PA	PA	PA	PA	NA
180	014-001-014	PA	PA	PA, R	PA, R	Residential (SFR)
181	**062-030-023**	**PA, R**	**PA, R**	**--**	**--**	**Residential (SFR)**
182	**062-030-012**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
183	**062-030-011**	PA	PA	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
184	062-030-014	PA	PA	--	--	NA
185	062-030-006	PA	PA	--	--	NA
186	**062-030-007**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR)**
187	**062-030-008**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR & MH)**
188	**062-030-022**	**PA, R**	**PA, R**	PA	PA	**Residential (SFR)**
189	062-030-021	PA	PA	FA	FA	NA
190	**062-030-019**	PA	PA	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
191	062-030-017	PA	PA	PA	PA	NA
192	062-029-010	PA	PA	PA	PA	NA
193	062-029-001	PA	PA	--	--	NA
194	062-025-010	PA	PA	--	--	NA
195	062-025-011	PA	PA	--	--	NA
196	062-025-013	PA	PA	--	--	NA
197	062-025-012	PA	PA	--	--	NA
198	062-030-001	PA	PA	--	--	NA
199	062-024-032	PA	PA	--	--	NA
200	062-025-009	PA	PA	--	--	NA
201	062-025-026	PA	PA	--	--	NA
202	062-025-008	PA	PA	--	--	NA
203	062-025-023	PA	PA	--	--	NA
204	062-025-024	PA	PA	--	--	NA
205	**062-027-002**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR)**
206	062-027-003	PA	PA	--	--	NA
207	062-027-019	PA	PA	--	--	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
209	062-026-009	PA	PA	--	--	NA
210	062-026-008	PA	PA	--	--	NA
211	062-026-004	PA	PA	--	--	NA
212	062-026-007	PA	PA	--	--	NA
213	062-026-005	PA	PA	--	--	NA
214	**062-026-006**	**PA, R**	**PA, R**	**--**	**--**	**Residential (SFR & MH)**
215	062-014-003	PA	PA	--	--	NA
216	**062-026-001**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR & MH)**
217	062-026-002	PA	PA	--	--	NA
218	062-014-004	PA	PA	--	--	NA
219	063-030-001	PA	PA	--	--	NA
220	062-014-003	PA	PA	--	--	NA
221	**062-014-002**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR)**
222	062-014-015	PA	PA	--	--	NA
223	063-025-009	PA	PA	--	--	NA
224	063-026-007	PA	PA	--	--	NA
225	063-026-006	PA	PA	--	--	NA
226	063-026-005	PA	PA	--	--	NA
227	063-026-004	PA	PA	--	--	NA
228	063-025-010	PA	PA	--	--	NA
229	063-027-001	PA	PA	--	--	NA
230	**063-027-002**	**PA, R**	**PA, R**	**--**	**--**	**Residential (SFR)**
231	**063-027-008**	**PA, R**	**PA, R**	**--**	**--**	**Residential (SFR)**
232	063-027-009	PA	PA	--	--	NA
233	**063-027-017**	**FA, R**	**FA, R**	**--**	**--**	**Residential (SFR)**
234	063-027-004	PA	PA	--	--	NA
235	**063-025-008**	**PA, R**	**PA, R**	**--**	**--**	**Residential (Mobile Home)**
236	063-027-018	PA	PA	--	--	NA
237	**063-027-029**	**PA, R**	**PA, R**	**--**	**--**	**Residential (SFR)**
238	063-027-033	PA	PA	--	--	NA
239	063-027-064	PA	PA	--	--	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
240	063-027-062	PA	PA	--	--	NA
241	063-027-063	PA	PA	--	--	NA
242	063-027-007	PA	PA	--	--	NA
243	063-027-059	PA	PA	--	--	NA
244	063-028-009	PA	PA	--	--	NA
245	063-028-008	PA	PA	--	--	NA
246	063-028-021	PA	PA	--	--	NA
247	063-028-020	PA	PA	--	--	NA
248	063-028-019	PA	PA	--	--	NA
249	063-028-040	PA	PA	--	--	NA
250	063-028-039	PA	PA	--	--	NA
251	063-028-038	PA	PA	--	--	NA
252	063-028-037	PA	PA	--	--	NA
253	063-028-023	PA	PA	--	--	NA
254	063-028-004	PA	PA	--	--	NA
255	063-028-005	PA	PA	--	--	NA
256	064-031-026	PA	PA	--	--	NA
257	064-030-006	PA	PA	--	--	NA
258	064-031-027	PA	PA	--	--	NA
259	064-029-013	PA	PA	PA	--	NA
260	064-029-001	PA	--	PA	--	NA
261	**064-029-012**	**FA, R**	**--**	**--**	**--**	**Residential (SFR & MH)**
262	**064-029-011**	**PA, R**	**PA, R**	**PA, R**	**PA, R**	**Residential (SFR)**
263	064-028-013	PA	--	PA	--	NA
264	064-029-002	PA	PA	PA	--	NA
265	064-028-007	PA	--	PA	--	NA
266	064-028-009	PA	--	PA	--	NA
267	064-028-008	PA	--	PA	--	NA
268	064-027-020	PA	--	PA	--	NA
269	064-027-008	PA	--	PA	--	NA
270	064-027-019	PA	--	PA	--	NA
271	**064-027-007**	**FA, R**	**--**	**FA, R**	**--**	**Residential (SFR)**
272	**064-027-006**	**FA, R**	**--**	**FA, R**	**--**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
273	064-027-014	PA	--	PA	--	NA
274	064-027-017	PA	--	PA	--	NA
275	064-027-005	PA	--	PA	--	NA
276	064-027-004	PA	--	PA	--	NA
277	064-027-003	PA	--	PA	--	NA
278	064-021-010	PA	--	PA	--	NA
279	**064-021-009**	**FA, R**	**--**	**PA, R**	**--**	**Residential (Mobile Home)**
280	**064-021-027**	**FA, R**	**--**	**FA, R**	**--**	**Residential (SFR)**
281	064-021-007	PA	--	PA	--	NA
282	**064-021-006**	**FA, R**	**--**	**FA, R**	**--**	**Residential (SFR)**
283	**064-021-005**	**FA, R**	**--**	**FA, R**	**--**	**Mixed (SFR & Farm)**
284	064-017-009	PA	--	PA	--	NA
285	**064-021-025**	**FA, R**	**--**	**FA, R**	**--**	**Residential (Mobile Home)**
286	**064-017-008**	**FA, R**	**--**	**FA, R**	**--**	**Mixed (SFR & Farm)**
287	**064-017-017**	**FA, R**	**--**	**FA, R**	**--**	**Mixed (Residential & Farm)**
288	064-021-026	PA	--	PA	--	NA
289	**064-021-029**	**PA, R**	**--**	**PA, R**	**--**	**Residential (Mobile Home)**
290	**064-021-028**	**PA, R**	**--**	**PA, R**	**--**	**Residential (Mobile Home)**
291	064-017-012	PA	--	PA	--	NA
292	064-017-013	PA	--	PA	--	NA
293	064-017-014	PA	--	PA	--	NA
294	010-014-016	PA	--	PA	--	NA
295	**010-014-031**	**PA, R**	**--**	**PA, R**	**--**	**Residential (SFR)**
296	010-022-002	PA	--	PA	--	NA
297	**010-022-003**	**FA, R**	**--**	**FA, R**	**--**	**Residential (SFR)**
298	010-022-004	PA	--	PA	--	NA
299	010-022-012	PA	--	PA	--	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
300	075-075-052	PA	PA	PA	PA	NA
301	075-025-006	PA	PA	PA	PA	NA
302	**064-029-015**	**--**	**FA, R**	**FA, R**	**--**	**Residential (SFR & MH)**
303	**064-029-014**	**--**	**FA, R**	**--**	**--**	**Mixed (Residential & Farm)**
304	064-029-009	--	PA	--	--	NA
305	062-029-014	--		PA	PA	NA
306	**064-029-017**	**--**	**PA, R**	**--**	**--**	**Residential (SFR)**
307	064-029-004	--	PA	--	--	NA
308	010-040-010	--	PA	--	--	NA
309	010-040-004	--	PA	--	--	NA
310	010-039-030	--	PA	--	--	NA
311	010-040-009	--	PA	--	--	NA
312	010-039-029	--	PA	--	--	NA
313	010-039-033	--	PA	--	--	NA
314	010-040-006	--	PA	--	--	NA
315	010-041-041	--	PA	--	--	NA
316	010-041-028	--	PA	--	--	NA
317	010-041-037	--	PA	--	--	NA
318	010-041-039	--	PA	--	--	NA
319	010-041-040	--	PA	--	--	NA
320	010-041-023	--	PA	--	--	NA
321	010-041-024	--	PA	--	--	NA
322	010-041-025	--	PA	--	--	NA
323	010-041-037	--	PA	--	--	NA
324	010-041-038	--	PA	--	--	NA
325	010-072-004	--	PA	--	--	NA
326	010-072-001	--	PA	--	--	NA
327	010-072-003	--	PA	--	--	NA
328	010-072-003	--	PA	--	--	NA
329	010-072-002	--	PA	--	--	NA
330	010-015-061	--	PA	--	--	NA
331	010-015-071	--	PA	--	--	NA
332	010-015-067	--	PA	--	--	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
333	010-008-052	--	PA	--	--	NA
334	010-008-053	--	PA	--	--	NA
335	010-011-067	--	PA	--	--	NA
336	010-011-068	--	PA	--	--	NA
337	010-011-033	--	PA	--	--	NA
338	010-011-038	--	PA	--	--	NA
339	**014-001-037**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
340	**014-001-040**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
341	014-001-032	--	--	PA	PA	NA
342	014-001-016	--	--	PA	PA	NA
343	014-001-029	--	--	PA	PA	NA
344	**014-001-028**	**--**	**--**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
345	**014-001-025**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
346	062-030-018	--	--	PA	PA	NA
347	046-006-007	PA	PA	PA	PA	NA
348	**014-001-024**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
349	**062-029-011**	PA	PA	**PA, R**	**PA, R**	**Residential (SFR)**
350	014-049-001	--	--	PA	PA	NA
351	062-029-008	--	--	PA	PA	NA
352	062-029-005	--	--	PA	PA	NA
353	014-049-002	--	--	PA	PA	NA
354	062-029-004	--	--	PA	PA	NA
355	014-049-003	--	--	PA	PA	NA
356	**062-028-001**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
357	**062-028-002**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
358	**062-028-003**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
359	**062-028-011**	**--**	**--**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
360	**062-028-010**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
361	**062-028-006**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
362	**062-028-007**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
363	**062-028-008**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR & Duplex)**
364	**062-029-013**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
365	**062-027-004**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
366	**062-027-015**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR & APT)**
367	**014-049-004**	**--**	**--**	**FA, R**	**FA, R**	**Mixed (SFR & Farm)**
368	**062-027-014**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
369	014-049-005	--	--	PA	PA	NA
370	062-027-013	--	--	PA	PA	NA
371	062-027-012	--	--	PA	PA	NA
372	**014-049-006**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR & MH)**
373	062-027-011	--	--	PA	PA	NA
374	**062-027-010**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR)**
375	062-027-017	--	--	PA	PA	NA
376	062-027-016	--	--	PA	PA	NA
377	062-027-008	--	--	PA	PA	NA
378	062-027-007	--	--	PA	PA	NA
379	062-027-006	--	--	PA	PA	NA
380	062-027-005	--	--	PA	PA	NA
381	063-030-001	--	--	PA	PA	NA
382	**014-005-001**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
383	**014-005-012**	**--**	**--**	**FA, R**	**FA, R**	**Residential (SFR & MH)**
384	**014-005-011**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**
385	014-005-003	--	--	PA	PA	NA
386	014-002-017	--	--	PA	PA	NA
387	014-002-016	--	--	PA	PA	NA
388	014-002-013	--	--	PA	PA	NA
389	**063-029-019**	**--**	**--**	**PA, R**	**PA, R**	**Residential (SFR)**

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
390	063-029-070	--	--	PA	PA	NA
391	063-029-024	--	--	PA	PA	NA
392	014-002-014	--	--	PA	PA	NA
393	063-029-035	--	--	PA	PA	NA
394	063-029-065	--	--	PA	PA	NA
395	063-029-069	--	--	PA	PA	NA
396	014-002-003	--	--	PA	PA	NA
397	063-029-068	--	--	PA	PA	NA
398	063-029-067	--	--	PA	PA	NA
399	063-029-066	--	--	PA	PA	NA
400	063-029-063	--	--	PA	PA	NA
401	063-029-062	--	--	PA	PA	NA
402	063-029-058	--	--	PA	PA	NA
403	063-029-008	--	--	PA	PA	NA
404	063-029-051	--	--	PA	PA	NA
405	063-029-050	--	--	PA	PA	NA
406	063-029-049	--	--	FA	FA	NA
407	063-029-010	--	--	PA	PA	NA
408	**063-029-012**	**--**	**--**	**FA, R**	**FA, R**	**Farm**
409	063-029-056	--	--	PA	PA	NA
410	063-029-057	--	--	PA	PA	NA
411	063-028-005	--	--	PA	PA	NA
412	064-031-029	--	--	PA	PA	NA
413	064-032-006	--	--	PA	--	NA
414	064-032-051	--	--	PA	--	NA
415	064-032-007	--	--	PA	--	NA
416	064-031-021	--	--	PA	PA	NA
417	010-040-002	--	--	--	PA	NA
418	064-031-028	--	--	PA	PA	NA
419	064-031-019	--	--	PA	PA	NA
420	064-031-016	--	PA	PA	PA	NA
421	064-031-022	--	--	PA	PA	NA
422	064-031-023	--	PA	PA	PA	NA
423	064-031-017	--	PA	PA	--	NA
424	064-031-018	--	PA	PA	--	NA

ID#	APN	Full Acquisition (FA), Partial Acquisition (PA), Relocation (R)				Type of Relocation
		Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B	
425	064-031-015	--	PA	PA	--	NA
426	064-031-005	--	PA	PA	PA	NA
427	064-031-031	--	PA	PA	--	NA
428	064-031-001	--	--	PA	--	NA
429	064-029-007	--	--	PA	--	NA
430	064-031-032	--	--	--	PA	NA
431	064-031-024	--	--	--	PA	NA
432	010-016-013	--	--	--	PA	NA
433	010-016-016	--	--	--	PA	NA
434	010-016-002	--	--	--	PA	NA
435	010-016-003	--	--	--	PA	NA
436	010-016-022	--	--	--	PA	NA
437	010-016-018	--	--	--	PA	NA
438	010-016-023	--	--	--	PA	NA
439	010-016-020	--	--	--	PA	NA
440	**010-016-019**	**--**	**--**	**--**	**FA, R**	**Mixed (SFR & Farm)**
441	010-016-005	--	--	--	PA	NA
442	010-016-006	--	--	--	PA	NA
443	010-073-021	--	--	--	PA	NA
444	074-016-021	PA	PA	PA	PA	NA
445	074-014-014	PA	PA	PA	PA	NA
446	**046-001-013**	**FA, R**	**FA, R**	**FA, R**	**FA, R**	**Cell Tower**

No-Build Alternative

Under the No-Build Alternative, there would be no partial or full property acquisitions. No residents or businesses will require relocation advisory assistance.

Avoidance, Minimization and/or Mitigation Measures

See Appendix E for a summary of the Relocation Benefits and Relocation Impact Memorandum. The following standard condition and mitigation measure would apply to all Build Alternatives.

Measure RLC-1: Caltrans shall comply with the Uniform Relocation Assistance Real Property Acquisition Policies Act of 1970, as amended in 1987. Caltrans shall provide relocation advisory assistance to any person, business, farm, or nonprofit organization relocated as a result of the projects acquisition of real property for public use.

A Summary of Relocation Benefits is provided in Appendix E.

3.1.4.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2014, this was $23,850 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is demonstrated by its Title VI policy statement, signed by the Caltrans Director; the statement is provided in Appendix D of this document.

Affected Environment

Environmental justice was analyzed as part of the *Community Impact Assessment* for the North County Corridor (February 2016). The assessment evaluated impacts to people, institutions, neighborhoods, organizations, and larger social and economic systems.

Environmental justice is designed to protect areas with low-income and minority populations from disproportionate project impacts. To analyze the project and alternatives for possible environmental justice inequities, one must identify areas that are sensitive to environmental justice issues; areas where low-income or minority persons are concentrated are identified using the following criteria:

- **Minority individuals** are defined as members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black; or Hispanic.

- **Minority populations** should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

- **Low-income populations** in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census Current Population Reports, Series P-60 on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

The percentage of Hispanic population is greater than 50 percent in census tracts 3.03 and 3.04 (both in Riverbank). Therefore, for the purpose of identifying environmental justice concerns, a minority population, as defined by the guidance, exists in the project area.

Table 3.1.4.3-1: Total Minority and Hispanic Population

Jurisdiction	Total Minority (Non-Hispanic) (%)	Hispanic (%)
County		
Stanislaus County	34.42	41.92
Affected Communities		
City of Modesto	34.04	35.48
City of Oakdale	19.91	26.11
City of Riverbank	34.07	52.13
Project Area Census Tracts		
Census Tract1.02 (Unincorporated)	13.25	18.45
Census Tract 2.02 (Oakdale)	23.21	29.91
Census Tract 2.03 (Oakdale)	21.83	27.68
Census Tract 3.03 (Riverbank)	**30.49**	**53.85**
Census Tract 3.04 (Riverbank)	**43.34**	**72.82**
Census Tract 4.02 (Unincorporated/Modesto)	28.38	33.96
Census Tract 4.03 (Modesto)	19.75	21.75
Census Tract 4.04 (Modesto)	28.42	23.96
Census Tract 5.01 (Unincorporated)	31.88	30.03
Census Tract 5.05 (Modesto)	39.79	30.26
Census Tract 5.06 (Modesto)	28.11	28.45
Census Tract 28.02 (Unincorporated)	26.68	37.78

Source: Community Impact Assessment, 2016

Low-income Populations

Table 3.1.4.3-2 summarizes the estimated proportion of individuals living below the property threshold for census tracts within the project area in 2009. According to U.S. Census data, 19.9 percent of the population in Stanislaus County lived below the poverty threshold. The proportion of people living in poverty ranges from 2.97 percent (census tract 1.02, unincorporated) to 26.16 percent (census tract 28.02, unincorporated). No census tract contains a low-income population that exceeds 50 percent or twice that of the municipality as a whole; therefore, census tracts in the project area do not have meaningfully greater proportion of low-income populations than does the general population of the county, so there is no potential environmental justice concern with regard to those populations.

Table 3.1.4.3-2: Percentage of Population in Poverty

Jurisdiction	% Population in Poverty
County	
Stanislaus County	19.9
Affected Communities	
City of Modesto	20.39
City of Oakdale	9.43
City of Riverbank	14.86
Project Area Census Tracts	
Census Tract1.02 (Unincorporated)	13.25
Census Tract 2.02 (Oakdale)	23.21
Census Tract 2.03 (Oakdale)	21.83
Census Tract 3.03 (Riverbank)	30.49
Census Tract 3.04 (Riverbank)	43.34
Census Tract 4.02 (Unincorporated/Modesto)	28.38
Census Tract 4.03 (Modesto)	19.75
Census Tract 4.04 (Modesto)	28.42
Census Tract 5.01 (Unincorporated)	31.88
Census Tract 5.05 (Modesto)	39.79
Census Tract 5.06 (Modesto)	28.11
Census Tract 28.02 (Unincorporated)	26.68

Source: Community Impact Assessment, 2016

Environmental Consequences

Build Alternatives 1A, 2A, 1B and 2B

The Council on Environmental Quality guidelines do not define an “affected area” for environmental justice purposes, but the U.S. Environmental Protection Agency (EPA) indicates that the “affected area” is “that area which the proposed project will or may have an effect on” (EPA 1998a). In this case, it is interpreted to mean the study area as a whole or a component thereof, such as an individual census tract.

As discussed above, 10 of the 12 contiguous census tracts do not contain a meaningfully greater proportion of minority or low-income populations, so they would not be of potential environmental justice concern. Census tracts 3.03 and 3.04, however, each contains Hispanic populations (considered a minority) that are “meaningfully greater” than those of the region as a whole.

All Build Alternatives border census tracts 3.03 and 3.04 at their southern boundary, and land use within the Primary Impact Area in these two census tracts includes industrial, business park, and rural residential. Proposed changes along census tracts 3.03 and 3.04 consist of widening the existing Claribel Road and constructing new frontage roads. Under all project alternatives,

four parcels in census tract 3.03 and 11 parcels in census tract 3.04 are subject to partial or full acquisition because they are located partially or fully within the proposed right-of-way.

Acquisitions in these two census tracts would require the relocation of residents in one house and the removal of structures in three industrial developments. According to census data, approximately 6,811 Hispanic individuals reside in census tracts 3.03 and 3.04 combined.

Because the project proposes to widen the existing right-of-way and construct new roadways throughout its limits, right-of-way acquisition will occur along the entire project corridor. As discussed in Section 3.1.4.2, Relocations, depending on the alternative chosen, the project would result in a total of 356 to 376 partial or full acquisitions throughout the corridor. The linear footage of proposed roadway in census tracts 3.03 and 3.04 consists of approximately 4 percent of the project roadway footage, and acquisition in census tracts 3.03 and 3.04 represents less than 4 percent of the total project acquisition. The amount of acquisition is not considered a disproportionally greater amount than acquisition in other areas, and therefore would not be of environmental justice concern. In addition, relocation assistance will be provided to individuals, families, and businesses that need to be relocated in census tracts 3.03 and 3.04, and all other affected census tracts without discrimination.

According to the Noise Study Report (February 2017), operation of the project may result in increased noise levels in many locations along the project. Receptors in census tracts 3.03 and 3.04 would experience either no increases in noise levels or increased noise levels that still remain below the noise abatement standard, 67 dBA. Because all four Build Alternatives of the project share the same alignment and design where the North County Corridor passes census tracts 3.03 and 3.04, selection of a Build Alternative would not result in differing levels of impacts.

Based on the above discussion and analysis, Alternatives 1A, 1B, 2A and 2B would not cause disproportionately high and adverse effects on any minority or low-income populations per Executive Order 12898 concerning environmental justice once the project is operational.

Temporary Construction Impacts

During construction, residents within the Primary Impact Area may experience temporary disruption to traffic due to lane restrictions, lane closures, temporary detours, increased noise levels, and decreased air and visual quality. Such construction-related impacts would occur at all construction sites at similar levels along the entire project corridor.

Based on the above discussion and analysis, Alternatives 1A, 1B, 2A and 2B would not cause disproportionately high and adverse effects on any minority or low-income populations per Executive Order 12898 concerning environmental justice during construction of the project.

No-Build Alternative

Under the No-Build Alternative conditions, no impacts would occur to any persons or communities along the North County Corridor.

Avoidance, Minimization and/or Mitigation Measures

Based on the above discussion and analysis, Alternatives 1A, 1B, 2A and 2B would not cause disproportionately high and adverse effects on any minority or low-income populations pursuant

to Executive Order 12898 concerning environmental justice. Therefore, no avoidance, minimization, or mitigation measures are required.

3.1.5 Utilities and Emergency Services

Affected Environment

Utilities and emergency services have been analyzed as part of the *Community Impact Assessment* (February 2016) for the North County Corridor project.

Utilities

Various utilities exist in the project area, including sewer, water, overhead and underground electrical, overhead and underground telephone and communications, storm drains, irrigation canals, street lighting and signal equipment. The following existing utilities have been identified within the project area:

- Electric (overhead and underground) – PG&E
- Electric (Hetch-Hetchy overhead) – San Francisco Public Utilities Commission
- Electric – Modesto Irrigation District
- Electric – Turlock Irrigation District (TID)
- Gas – PG&E
- Telephone (overhead and underground) – AT&T
- Communications (overhead and underground) – Various
- Water (Hetch-Hetchy) - San Francisco Public Utilities Commission
- Water – City of Modesto
- Water – City of Riverbank
- Sanitary Sewer – City of Modesto
- Sanitary Sewer – City of Riverbank
- Irrigation – Modesto Irrigation District
- Irrigation – Oakdale Irrigation District

Emergency Services

The Stanislaus County Sheriff's Department provides law enforcement services for the unincorporated area of Stanislaus County, and is located at 250 E. Hackett Road, Modesto, CA 95358. The City of Riverbank is also served by a division of the county's police force, and is located at 6727 Third Street, Riverbank, CA 95367. Law enforcement service in the City of Modesto is provided by the Modesto Police Department, located at 600 10th Street, Modesto, CA 95354. The City of Oakdale is served by its own Oakdale Police Department, located at 245 N 2nd Avenue, Oakdale, CA 95361. Eight law enforcement departments and offices exist in the Secondary Impact Area. A law enforcement facility is located within the project area. These police services provide law enforcement, security, crime prevention, and intervention for the region, including the project area.

Fire protection services in the unincorporated area of Stanislaus County and the City of Riverbank are provided by the Stanislaus Consolidated Fire District, located at 3324 Topeka Street, Riverbank, CA 95367. Stanislaus Consolidated Fire also works with the Modesto

Regional Fire Authority and the Oakdale City Fire Department to provide fire protection services to these two cities. There are 18 fire departments and stations in the Secondary Impact Area. No fire station is located within the project area; however, there are 18 fire departments and stations in the Secondary Impact Area, which provide fire protection and emergency medical services for the region, including the project area. The Fire District also has a swift water rescue team, a technical and heavy rescue team, and a hazardous materials team. The fire departments within the region provide basic life support services to the public. All fire suppression personnel are trained in emergency medical technician/defibrillation and combi-tube level airway management. Additional advanced life support training has been given to select firefighters. Those firefighters/paramedics are authorized to provide advanced life support in specific rescue-related situations.

One medical service facility, American Medical Response, located at 4846 Stratos Way, Modesto, CA 95356, is partially within the project area. As of 2005, the average response time for 80 percent of the emergency calls was 5 minutes within Stanislaus County.

About nine additional emergency service facilities are within the Secondary Impact Area. These facilities are not directly next to the proposed roadway, and may only experience minor disruption to circulation during construction of the project. Several other hospitals, medical centers, and surgical facilities outside the study area in the cities of Modesto, Riverbank, and Oakdale may provide medical services for residents in the study area.

Environmental Consequences

Build Alternatives 1A, 2A, 1B and 2B

Alternatives 1A, 1B, 2A, and 2B are discussed together below.

Utilities

Utility involvement for the project includes the relocation of existing local public agency street lights and electrical conduit, overhead electric and telecommunication lines and pull boxes, underground electric, telephone, cable and vaults for various utility owners. Potholing will be required for potential utility conflicts with underground electric, gas, water, sewer, communication, irrigation and drain laterals. None of these relocations are anticipated to impact project lead time.

Responsibility for relocation of existing utilities that are within the state and city right-of-way would follow state and federal regulations and statutes. All Build Alternatives would require relocation of existing utilities, but relocation of the Hetch-Hetchy electric transmission lines, Hetch-Hetchy underground pipelines and main canals would not be required.

The project crosses Hetch Hetchy facilities 4 times. Each crossing is described in further detail below:

> In Segment 1, NCC crosses Hetch Hetchy approximately 1,200 feet west of the NCC/Oakdale Road intersection, and Oakdale Road alignment crosses Hetch Hetchy approximately 500 feet north of the NCC/Oakdale Road intersection. The crossings are at-grade over the water pipeline and under the power transmission lines.

In Segment 2, NCC crosses Hetch Hetchy approximately 500 feet east of Langworth Road. The crossings are at-grade over the water pipeline and under the power transmission lines.

In Segment 3, NCC crosses Hetch Hetchy approximately 500 feet south of Warnerville Road. The crossings are at-grade over the water pipeline and under the power transmission lines.

It is anticipated that San Francisco Public Utilities Commission pipelines and power lines will not be relocated; however, the project will require eight valve boxes to be relocated and some access roads may be severed, which will require relocation. Valve boxes would be relocated outside of Caltrans' right-of-way, and access would be provided. The project will ensure that no access to SFPUC facilities is removed as part of the project, and access roads would be maintained to allow for continued access to Hetch-Hetchy infrastructure. Additionally, clearances for Hetchy-Hetchy facilities and North County Corridor would meet any CPUC GO-95 requirements. Known facilities have been included in the preliminary plans and anticipated relocation costs have been included in the preliminary project estimates as part of utility costs. At this time, it is not anticipated that transmission or intersect towers will be constructed as part of this project. Further, the project would not have any longitudinal encroachments on San Francisco Public Utilities Commission facilities and a Longitudinal Encroachment Exception will not be needed for the project.

All utilities, including irrigation systems, would continue to be fully functional after construction of the project. Although construction of the project would not cause major outage of utilities, minor and temporary utility outages may occur during construction. All utility information within this report will be verified with each corresponding utility agency during the final design phase. A Determination of Liability would need to be prepared following the preparation of utility conflict plans. Utility relocations would take place before and during construction.

Emergency Services

Construction activities under all Build Alternatives may cause temporary lane restrictions, lane closures, or detours. Also, local roads may experience higher than normal traffic volumes as a result of disruptions on major roads and arterials. Such disruption to traffic could increase response time of mobile emergency services within the study area. However, no impact would occur to emergency services facilities, nor would there be any long-term impacts. Coordination of emergency services vehicles will be included in the Traffic Management Plan to minimize any potential impact.

Temporary Construction Impacts

During construction, access to the American Medical Response facility in Modesto may be temporarily modified as Kiernan Avenue will be closed to traffic from Stratos Way. Additional temporary construction impacts may include elevated noise levels and impaired air quality. No partial or full acquisitions would be required from this parcel. After construction, motorists would be able to access this property through frontage road from the north and Galaxy Way from the south.

No-Build Alternative

Under the No-Build Alternative conditions, no impacts would occur on any existing utilities or medical facilities.

Under the No-Build Alternative conditions, traffic congestion on the existing SR-108 would continue to worsen due to the projected traffic volume increases, thereby lengthening the response time of mobile emergency services within the study area.

Avoidance, Minimization and/or Mitigation Measures

To minimize traffic disruption, Caltrans, after consulting with local agencies including fire and law enforcement, would implement a Traffic Management Plan for the construction phase to be utilized throughout the duration of construction activities. The plan would be made available to the public and to each jurisdiction within the study area. The plan would be designed to minimize project-related traffic problems by adopting traditional traffic management strategies to include an innovative combination of public and motorist information, demand management, incident management, system management, alternate route strategies, and construction strategies. Coordination of emergency services will be included in the Traffic Management Plan.

The Traffic Management Plan would also include detour signage, public transportation information, construction timing, and other useful construction information for residents and motorists. Additionally, the plan would also include coordination and routing of school buses and emergency vehicles during construction. Further discussion of the Traffic Management Plan is provided in Section 3.1.6.

To minimize disruption, relocation of utilities would occur before project construction. Utility outages will be scheduled to occur during hours that would cause minimal impacts to the users. Unavoidable temporary disruptions to utility services would be approved by appropriate utility and public agencies. A schedule of utility outages will be released to the general public through the project media campaign and/or other means of communication.

Measure UTL/ES-1: To minimize interruptions of service to utility customers, a series of coordination letters shall be sent to all impacted utility companies to identify utilities within the proposed project. Letters will indicate where utility relocations are to be performed and the required time to relocate them. Design plans will be sent to involved utility companies during the project development phase. Meetings with utility companies will be arranged as necessary to discuss impacts and relocation plans.

Measure UTL/ES-2: Emergency services, local law enforcement agencies, and local businesses will be notified of the proposed project prior to the start of construction. Notification of specific lane closures shall be provided by the contractor 48 hours before the closure occurs.

3.1.6 Traffic and Transportation/Pedestrian and Bicycle

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (23 CFR 652). It further directs that the special needs of the elderly

and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the U.S. Department of Transportation regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 U.S. Code 794). The Federal Highway Administration has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the Americans with Disabilities Act requirements to federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

This section summarizes the *Traffic Operations Report for the North County Corridor New State Route* (May, 2015) and *Traffic Operations Report Addendum* (September, 2019). The *Traffic Operations Report Addendum* determined the previously analyzed opening year of 2022 and previously analyzed design year of 2042 should be updated to an opening year of 2026 and to a design year of 2046, and that roadways and intersections would not operate worse under the new opening/design years, the traffic benefits in the 2015 Traffic Operations Report remain valid, and new traffic impacts are unlikely based on similar land use forecasts. This discussion includes public transportation, sidewalks or trails, bike paths or lanes, circulation and parking, access, and choice of travel modes. Traffic impacts in this section are discussed to the extent that changes to circulation and/or access will result in permanent or temporary (construction-related) impacts to the community, including residents, businesses, pedestrians, and bicyclists.

The North County Corridor New SR-108 Project has been identified as an improvement measure to accommodate regional east-west traffic and to improve north-south network connectivity in northern Stanislaus and southern San Joaquin counties. For the purposes of Section 3.1.6 “corridor” refers to the transportation network in the larger area. Traffic through the corridor is a combination of commuter, local, commerce, and goods movement, with a large component of recreational traffic. This traffic currently conflicts with local traffic on the existing facilities, creating congestion and safety concerns, as well as noise and air pollution issues. These conditions are expected to worsen over time as development continues and traffic volumes increase within the corridor. Major transportation facilities and their classifications are shown in Figure 3.1.6-1, in Appendix A.

Traffic circulation goals and objectives for Stanislaus County and the three cities are described in the mobility or circulation section of each jurisdiction’s respective general plan. The General Plan of Stanislaus County (1994) states that “roughly one-fifth of the workers living in Stanislaus County commute to jobs outside the County each day, and the expansion of population and economic base also requires more efficient good movement. An efficient, integrated transportation system is essential to maintaining the quality of life and facilitating the economic growth of Stanislaus County.” Goods movement includes transporting agricultural goods and food-processing production in and out of the area. Over 90 interstate truck lines and 100 contract carriers operate in the Stanislaus region. The key issues within the project area are traffic congestion and operational conflicts between trucks and passenger vehicles.

Access, Circulation, and Parking

Access and Circulation

The project area is generally bounded by SR-108/SR-120 to the north, Pelandale Avenue/ Claratina Avenue to the south, Carver Road to the west and Maag Avenue to the east. The project area covers portions of four jurisdictions, including Stanislaus County and the cities of Modesto, Riverbank, and Oakdale. The existing roadway network in the project area includes state highways, arterials, collectors, and local streets. Figure 3.1.6-1, in Appendix A outlines the existing major transportation facilities.

Traffic operation analysis results are expressed by a descriptive term known as level of service (LOS). LOS is a measure of traffic operating conditions, which varies from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity resulting in long queues and delays). The LOS is determined differently depending on the type of control at the intersection. Freeway, multilane highway, and urban street facility operations are also described in terms of LOS (see Figures 1.2.2-7 and 1.2.2-8, in Appendix A, for illustrations of LOS). The service level for a freeway section and multilane highway is based on vehicle density expressed as passenger/ cars/lane/mile, and the service level for urban streets is based on average through-vehicle speed for each roadway segment, which is influenced both by the number of signals per mile and by the intersection control delay. LOS standards on Caltrans facilities are based on the Transportation Concept Report for each facility, or applied by jurisdiction.

The traffic analysis looked at 23 intersections in the study area. Table 3.1.6-1 shows the results for peak hour traffic.

Table 3.1.6-1: Existing (2014) Hour Signal Warrant Analysis

Intersection	Traffic Control[1]	Peak Hour	Delay (seconds/ vehicle)[2,3]	LOS [2,3]	Jurisdiction
1. Kiernan Avenue (SR-219)/Carver Road	AWSC	AM	82.7	**F**	Caltrans
		PM	22.3	C	
2. Kiernan Avenue (SR-219)/Tully Road	AWSC	AM	28.4	D	Caltrans
		PM	56.6	**F**	
3. McHenry Avenue/Ladd Road	Signal	AM	24.2	C	Stanislaus County
		PM	28.6	C	
4. McHenry Avenue/SR-108	Signal	AM	10.6	B	Caltrans
		PM	7.7	A	
5. SR-108/Patterson Road	Signal	AM	7.4	A	Caltrans
		PM	9.7	A	
6. SR-108/Kiernan Avenue	Signal	AM	28.5	C	Caltrans
		PM	31.8	C	
7. SR-108/Pelandale Avenue	Signal	AM	28.1	C	Caltrans
		PM	38.2	D	
8. Coffee Road/Claribel Road	AWSC	AM	80.4	**F**	Stanislaus County
		PM	87.0	**F**	
9. Coffee Road/Claratina Avenue	Round-about	AM	57.4	**F**	City of Modesto
		PM	53.0	**F**	
10. Oakdale Road/SR-108	Signal	AM	31.7	C	Caltrans
		PM	54.0	D	
11. Oakdale Road/Claribel Road	Signal	AM	33.3	C	

Intersection	Traffic Control[1]	Peak Hour	Delay (seconds/ vehicle)[2,3]	LOS [2,3]	Jurisdiction
		PM	38.8	D	City of Riverbank
12. Oakdale Road/Claratina Avenue	SSSC	AM	10 (13.5)	A (B)	City of Modesto
		PM	11.5 (34.4)	B (D)	
13. SR-108/1st Street	Signal	AM	37.3	D	Caltrans
		PM	65.8	**E**	
14. Claribel Road/Roselle Avenue	AWSC	AM	52.5	**F**	City of Riverbank/ Stanislaus County
		PM	83.8	**F**	
15. SR-108/Claus Road	SSSC	AM	4.5 (10.1)	A (B)	Caltrans
		PM	6.8 (17.5)	A (B)	
16. Claribel Road/Claus Road	Signal	AM	17.9	B	City of Riverbank
		PM	21.1	C	
17. Patterson Road/Crane Road	SSSC	AM	2.6 (4)	A (A)	Stanislaus County
		PM	2.9 (3.3)	A (A)	
18. Claribel Road/Bentley Road	SSSC	AM	1.9 (7.6)	A (A)	Stanislaus County
		PM	1.5 (7.8)	A (A)	
19. SR-108/Oak Avenue	Signal	AM	19.8	B	Caltrans
		PM	20.0	B	
20. SR-108/SR-120	Signal	AM	39.1	D	Caltrans
		PM	43.3	D	
21. SR-108/Maag Avenue	Signal	AM	23.2	C	Caltrans
		PM	23.4	C	
22. Patterson Road/Albers Road	Signal	AM	18.5	B	Stanislaus County
		PM	20.6	C	
23. Claribel Road/Albers Road	Signal	AM	16.2	B	Stanislaus County
		PM	11.2	B	

Notes: Results in bold represent unacceptable levels of service as determined by the applicable LOS standards of the relevant jurisdiction. Results based on SimTraffic simulation of 10 runs.
1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection, Roundabout = roundabout controlled intersection, AM = Morning, PM = Evening
2. Signalized and all-way stop intersection level of service based on weighted average control delay per vehicle, according to the 2010 Highway Capacity Manual.
3. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the 2000 Highway Capacity Manual in the notation: average (worst approach).
Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

All 23 existing study intersections currently operate at acceptable service levels during the morning and evening peak hours, except the following locations:

- Kiernan Avenue (SR-219)/Carver Road operates at LOS F during the morning peak hour
- Kiernan Avenue (SR-219)/Tully Road operates at LOS F during the evening peak hour
- Coffee Road/Claribel Road operates at LOS F during the morning and evening peak hours
- Coffee Road/Claratina Avenue operates at LOS F during the morning and evening peak hours
- SR-108/1st Street operates at LOS E during the evening peak hour
- Claribel Road/Roselle Avenue operates at LOS F during the morning and evening peak hours

Additionally, the eight unsignalized intersections were analyzed to see if traffic signals are warranted based on available data and guidelines designed to determine the need for a stop-and-go traffic signal. Only the Patterson Road/Crane Road and Claribel Road/Bentley Road intersections do not meet the requirements to warrant a traffic signal.

Urban streets and two-lane highways within the project area were analyzed using the appropriate urban street and two-lane highway LOS methodologies. See Table 3.1.6-2 and Table 3.1.6-3. All urban street study segments operate at LOS C or better during morning and evening peak hours, meeting the applicable LOS standards within their respected jurisdiction. However, except for the segment of SR-108/SR-120 between Wamble Road and Lancaster Road, all two-lane highway study segments operate at unacceptable service levels.

Table 3.1.6-2: Existing (2014) Urban Street LOS

Segment	Direction	Morning Peak Hour LOS	Evening Peak Hour LOS
3. SR-108 between Ladd Road and Kiernan Avenue	NB	B	B
	SB	B	C
4. SR-108 between Kiernan Avenue and Pelandale Avenue	NB	B	C
	SB	B	C
14. SR-108 between Oakdale Road and 1st Street	NB	B	B
	SB	C	A
28. SR-108 between Oak Avenue and SR-120	NB	B	B
	SB	B	B
32. SR-108/SR-120 between Yosemite Avenue and Maag Avenue	NB	B	B
	SB	C	C

Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

Table 3.1.6-3: Existing (2014) Two-Lane Highway LOS

Segment	Morning Peak Hour LOS	Evening Peak Hour LOS
4. SR-108 between McHenry Avenue and Oakdale Road	**E**	**E**
21. SR-108 between Claus Road and Crane Road	**E**	**E**
24. SR-108 between Crane Road and Oak Avenue	**E**	**E**
32. SR-108/SR-120 between Maag Avenue and Wamble Road	**E**	**E**
33. SR-108/SR-120 between Wamble Road and Lancaster Road	C	C

Notes: Results in **bold** represent unacceptable levels of service as determined by the applicable LOS standards of the relevant jurisdictions.

Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

Peak hour roadway volumes were compared to hourly roadway segment capacities to determine the level of service at 23 study segments. The results are shown in Figure 3.1.6-2 and Figure 3.1.6-3, in Appendix A. As shown in the figures, the following roadway segments do not meet the LOS standards of the jurisdictions and agencies that control them:

- SR-219 between Tully Road and McHenry Avenue operates at LOS E during the evening peak hour
- Oakdale Road between Claribel Road and Claratina Avenue operates at LOS E during the evening peak hour

- Claribel Road between SR-108 and Oakdale Road operates at LOS D during the morning and evening peak hours
- Claratina Avenue between McHenry Avenue and Coffee Road operates at LOS E during the morning and evening peak hours
- SR-108 between 1st Street and Claus Road operates at LOS E during the evening peak hour
- Patterson Road between SR-108 and Langworth Road operates at LOS D during the morning and evening peak hours
- Claus Road between Patterson Road and Claribel Road operates at LOS D during the evening peak hour
- Claus Road between Claribel Road and Sylvan Avenue operates at LOS D during the morning and evening peak hours
- Claribel Road between Oakdale Road and Claus Road operates at LOS D during the morning peak hour and at LOS E during the evening peak hour
- Yosemite Avenue between SR-108 and Patterson Road operates at LOS E during the morning and evening peak hour
- Albers Road between Patterson Road and Claribel Road operates at LOS D during the morning and evening peak hour

Existing (2014) intersection traffic operations were evaluated using the calibrated/validated SimTraffic models developed for the 23 study intersections. The simulation models were recorded for the peak hour with a 10-minute seeding period, which allows the model to fully populate the road network in order to accurately estimate peak hour traffic. Table 3.1.6-4 presents the simulated intersection level of service results for each of the study intersections. As shown in Table 3.1.6-4, all study intersections operate at acceptable service levels during the AM and PM peak hours, except the following six locations:

- Kiernan Avenue (SR-219)/Carver Road operates at LOS F during the AM peak Hour
- Kiernan Avenue (SR-219)/Tully Road operates at LOS F during the PM peak hour
- Coffee Road/Claribel Road operates at LOS F during the AM and PM peak hours
- Coffee Road/Claratina Avenue operates at LOS F during the AM and PM peak hours
- SR-108/1st Street operates at LOS E during the PM peak hour
- Claribel Road/Roselle Avenue operates at LOS F during the AM and PM peak hours

Intersection queues were also evaluated with the calibrated/validated SimTraffic models. Queues exceed available storage lengths at the following locations:

- Kiernan Avenue/Carver Road during the AM and PM peak hours
- McHenry Avenue/Ladd Road during the AM peak hour
- SR-108/Kiernan Avenue (SR-219) during the AM and PM peak hours
- SR-108/Pelandale Avenue during the AM and PM peak hours
- SR-108/Oakdale Road during the AM peak hour
- SR-108/1st Street during the AM and PM peak hours
- SR-108/Oak Avenue during the AM peak hour
- SR-108/SR-120 during the AM and PM peak hours
- SR-108/Maag Avenue during the AM and PM peak hours

Table 3.1.6-4: Existing (2014) Peak Hour Intersection Analysis

Intersection	Traffic Control[1]	Peak Hour	Delay (seconds/ vehicle)[2,3]	LOS[2,3]	Jurisdiction
1. Kiernan Avenue (SR-219)/ Carver Road	AWSC	AM	**82.7**	**F**	Caltrans
		PM	22.3	C	
2. Kiernan Avenue (SR-219)/ Tully Road	AWSC	AM	28.4	D	Caltrans
		PM	**56.6**	**F**	
3. McHenry Avenue/Ladd Road	Signal	AM	24.2	C	Stanislaus County
		PM	28.6	C	
4. McHenry Avenue/SR-108	Signal	AM	10.6	B	Caltrans
		PM	7.7	A	
5. SR-108/Patterson Road	Signal	AM	7.4	A	Caltrans
		PM	9.7	A	
6. SR-108/Kiernan Avenue	Signal	AM	28.5	C	Caltrans
		PM	31.8	C	
7. SR-108/Pelandale Avenue	Signal	AM	28.1	C	Caltrans
		PM	38.2	D	
8. Coffee Road/Claribel Road	AWSC	AM	**80.4**	**F**	Stanislaus County
		PM	**87.0**	**F**	
9. Coffee Road/Claratina Avenue	Round-about	AM	**57.4**	**F**	City of Modesto
		PM	**53.0**	**F**	
10. Oakdale Road/SR-108	Signal	AM	31.7	C	Caltrans
		PM	54.0	D	
11. Oakdale Road/Claribel Road	Signal	AM	33.3	C	City of Riverbank
		PM	38.8	D	
12. Oakdale Road/Claratina Avenue	SSSC	AM	10 (13.5)	A (B)	City of Modesto
		PM	11.5 (34.4)	B (D)	
13. SR-108/1st Street	Signal	AM	37.3	D	Caltrans
		PM	65.8	**E**	
14. Claribel Road/Roselle Avenue	AWSC	AM	**52.5**	**F**	City of Riverbank/ Stanislaus County
		PM	**83.8**	**F**	
15. SR-108/Claus Road	SSSC	AM	4.5 (10.1)	A (B)	Caltrans
		PM	6.8 (17.5)	A (B)	
16. Claribel Road/Claus Road	Signal	AM	17.9	B	City of Riverbank
		PM	21.1	C	
17. Patterson Road/Crane Road	SSSC	AM	2.6 (4)	A (A)	Stanislaus County
		PM	2.9 (3.3)	A (A)	
18. Claribel Road/Bentley Road	SSSC	AM	1.9 (7.6)	A (A)	Stanislaus County
		PM	1.5 (7.8)	A (A)	
19. SR-108/Oak Avenue	Signal	AM	19.8	B	Caltrans
		PM	20.0	B	
20. SR-108/SR-120	Signal	AM	39.1	D	Caltrans
		PM	43.3	D	
21. SR-108/Maag Avenue	Signal	AM	23.2	C	Caltrans
		PM	23.4	C	
22. Patterson Road/Albers Road	Signal	AM	18.5	B	Stanislaus County
		PM	20.6	C	
23. Claribel Road/Albers Road	Signal	AM	16.2	B	Stanislaus County
		PM	11.2	B	

Intersection	Traffic Control[1]	Peak Hour	Delay (seconds/ vehicle)[2,3]	LOS[2,3]	Jurisdiction
Notes: Results in bold represent unacceptable levels of service as determined by the applicable LOS standards of the relevant jurisdiction. Results based on SimTraffic simulation of 10 runs. 1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection, Roundabout = roundabout controlled intersection 2. Signalized and all-way stop intersection level of service based on weighted average control delay per vehicle, according to the 2010 Highway Capacity Manual. 3. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the 2000 Highway Capacity Manual in the notation: average (worst approach). Source: Fehr & Peers, 2015 & 2019					

The rate for accidents resulting in fatalities or injuries along the study segments of the existing SR-108, SR-120 and SR-219 were higher than the statewide average for similar facilities (Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019), as shown in Table 3.1.6-5.

Table 3.1.6-5 Accident Rate Comparison

Facility	Number of Accidents			Accident Rate (accidents per million vehicle miles)					
				Actual			State Average		
	Total	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury
SR-108 between McHenry Avenue (PM 24.618) and Yosemite Avenue (PM 38.236)	381	5	163	**0.023**	**0.76**	**1.78**	0.017	0.51	1.26
SR-108/SR-120 between Yosemite Avenue (PM 5.116) and Lancaster Road (PM 10.9)	183	1	76	0.009	**0.66**	**1.58**	0.016	0.42	0.97
SR-219 between SR-99 (PM 0.116) and SR-108 (PM 4.858)	170	0	61	0.00	**0.56**	**1.56**	0.012	0.47	1.15
SR-108 between SR-99 (PM 22.438) and SR-219 (PM 27.610)	441	4	267	**0.025**	**1.66**	**2.73**	0.010	0.91	1.71

Note: Shading and bold denotes locations that exceed the statewide average for similar facilities.
Source: Caltrans District 10 TASAS data between January 1, 2009 and December 31, 2011.

Bicycle and Pedestrian Corridors

A brief description of bicycle facility types is presented below.

- Class I Bikeway (Bicycle Path) – Provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.
- Class II Bikeway (Bicycle Lane) – Provides a restricted right-of-way and is designated for the use of bicycles with a striped lane on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- Class III (Bicycle Route) – Provides for a right-of-way designated by signs and/or pavement markings for shared use with pedestrians or motor vehicles.

Currently, limited bicycle facilities are provided within the project area. No bicycle facilities exist in the unincorporated areas of the county. The rural nature of the unincorporated area roadways generally requires that bicycles share the roadways with motor vehicles. Within city limits, Class II bike lanes and Class III bike routes are provided along sections of existing roadway; however, gaps in the existing bicycle network make it difficult to travel east-west or north-south through the area. Several bicycle facilities are planned throughout the county and within the project area. Figure 3.1.6-4, in Appendix A, shows the existing and planned bicycle facilities in the area.

Pedestrian facilities, such as sidewalks, crosswalks, and pedestrian signals, exist in the developed areas of Modesto, Riverbank and Oakdale; however, most roadways in the unincorporated areas of the county do not have pedestrian facilities. Currently, no pedestrian paths are provided within the project area.

Americans with Disabilities Act

Several locations within the existing facilities throughout the project area are in compliance with the Americans with Disabilities Act (ADA); however, many areas do not have sidewalks and are not accessible based on Americans with Disabilities Act standards.

Parking

Most parking in the study area is associated with residential and commercial developments. Very limited public or on-street parking is available due to the suburban and rural nature of the study area. The only public parking within the Primary Study Area is the on-street parking area along McHenry Avenue, south of the McHenry Avenue/Kiernan Avenue intersection.

Public Transportation

Various transit services are provided in the project study area, including bus and passenger rail service. Figure 3.1.6-5, in Appendix A, shows all public transportation routes and facilities in the study area.

The Stanislaus Regional Transit (StaRT) run by Stanislaus County operates 16 fixed bus routes within Stanislaus County and has connectivity with local transit operators and transfer points within many cities, including the cities of Modesto, Riverbank and Oakdale. Beside fixed-route transit services, StaRT also offers Runabout, Shuttle, and Dial-A-Ride services in the developed areas of the county. The StaRT service routes in the study area are Route 60, Turlock/Modesto Shuttle, Eastside Shuttle, and Newman Dial-a-Ride.

The Modesto Area Express (MAX), run by the City of Modesto, operates a bus system that serves the cities of Modesto and Ceres, as well as the communities of Salida and Empire. Small sections of Routes 22 and 27 pass through the project area near the intersection of Kiernan Avenue and McHenry Avenue.

Amtrak provides passenger rail services to the study area. The San Joaquin Route passes through Modesto using Burlington Northern Santa Fe (BNSF) rails. The Amtrak railroad within the project area crosses Claribel Road in the vicinity of Claribel Avenue/Terminal Avenue intersection. No BNSF passenger train is operated in Stanislaus County.

Environmental Consequences

Build Alternatives 1A, 1B, 2A, and 2B

Access, Circulation and Parking

Synchro and SimTraffic were used to model existing peak hour intersection operations. These existing condition models are then used to evaluate future traffic conditions based upon the StanCOG travel demand forecasting (TDF) model. An extensive model calibration and validation process was then followed to ensure that the modeled results for existing conditions are consistent with the observed existing conditions on the local streets. The TDF model is maintained by StanCOG for regional planning efforts, and was used to develop traffic demand forecasts for the 2026 no-build, 2026 with-project, 2046 no-build, and 2046 with-project conditions. Traffic forecasts of the same year were made under the same assumptions of land use and roadway network. The same project configurations were used for 2026 and 2046.

All Build Alternatives would result in a redistribution of traffic volumes in the study area. Generally, all alternatives result in an overall reduction in traffic volumes on major east-west roadways such as SR-108, Patterson Road, and Claratina Avenue, as some of that traffic is shifted to the new North County Corridor. Table 3.1.6-6 shows the estimated average year 2046 daily demand volume reduction on existing SR-108 within the study area.

Table 3.1.6-6: Estimated Average 2046 Daily Demand Volume Reduction on existing SR-108 between McHenry Avenue and Stearns Avenue after Project Implementation

Build Alternative	Reduction in Daily Volume
1A	27%
1B	21%
2A	17%
2B	11%

Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

Regional measures of effectiveness (MOEs) were calculated to determine the impacts under with-project conditions from a regional perspective. Table 3.1.6-6 shows the daily area-wide vehicle miles of travel (VMT) and vehicle hours of delay (VHD) with and without the project. The following is a brief description of the MOEs:

- *Vehicle Miles of Travel (VMT)* – is a measure of the total miles traveled by all vehicles in the project area during the analysis period
- *Vehicle Hours of Delay (VHD)* – is the amount of total vehicle delay incurred as a result of congestion

As shown in Table 3.1.6-7, the overall amount of daily travel (reflected in the vehicle miles of travel measures) will be slightly less under with-project conditions when compared to no-build conditions for all analysis years. As these results show, any project alternative would have positive region-wide impacts in reducing travel times and delays caused by congestion. In a comparison for the no-build scenario, all four project alternatives would either improve or maintain at least LOS D operations along the urban street study segments, maintain or improve

the LOS reported for each two-lane highway study segments, and result in the planned North County Corridor freeway/expressway operating at LOS C or better during morning and evening peak hours for each project alternative.

Table 3.1.6-7: Regional Measures of Effectiveness for Project Area (No-Build vs Build Alternatives)

Measure	No-Build	Alt. 1A	Alt. 1B	Alt. 2A	Alt. 2B
2026					
Daily Vehicle Miles of Travel (VMT)	2,497,408	2,572,913 (3.0%)	2,572,019 (3.0%)	2,562,813 (2.6%)	2,562,740 (2.6%)
Daily Vehicle Hours of Delay (VHD)[2]	1,873	1,477 (-21.1%)	1,505 (-19.7%)	1,676 (-10.5%)	1,722 (-8.0%)
2046					
Daily Vehicle Miles of Travel (VMT)	3,174,063	3,262,350 (2.8%)	3,255,592 (2.6%)	3,253,685 (2.5%)	3,246,040 (2.3%)
Daily Vehicle Hours of Delay (VHD)[2]	7,159	4,736 (-33.8%)	4,903 (-31.5%)	5,952 (-16.9%)	6,300 (-12.0%)

Notes:
1 Percent change from No-Build conditions is presented in parentheses.
2 Only includes roadway delay (intersection delay is not included).
Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

The 2046 traffic operation analysis indicates that, except for a few locations, any of the Build Alternatives would improve overall traffic operation on most intersections compared to No-Build conditions. Most of the intersections would continue to meet the peak hour signal warrant (meet requirements for traffic signals) under conditions of Build Alternative. With implementation of the project, the number of intersections projected to operate below the applicable LOS standards would be reduced from 15 to 8.

As shown in Table 3.1.6-8, in 2026 the new North County Corridor intersections (including frontage roads) are expected to operate at acceptable service levels under all project alternatives. The new single-point urban interchanges (SPUI) at existing SR-108, Coffee Road, Oakdale Road, and Roselle Avenue are expected to operate at LOS B or better conditions.

As shown in Table 3.1.6-9, in 2046 the new North County Corridor intersections (including frontage roads) are expected to operate at acceptable service levels under all project alternatives. The new single-point urban interchanges (SPUI) at existing SR-108, Coffee Road, Oakdale Road, and Roselle Avenue are expected to operate at LOS C or better conditions.

Table 3.1.6-8: 2026 Peak Hour Intersection Analysis

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
1. Carver Road/Kiernan Avenue (SR-219)	Signal	AM	19	B	24	C	24	C	22	C	23	C
		PM	15	B	20	B	20	B	18	B	18	B
2. Tully Road/Kiernan Avenue (SR-219)	Signal	AM	18	B	17	B	17	B	18	B	13	B
		PM	27	C	21	C	21	C	16	B	20	B
3. McHenry Avenue/ Ladd Road	Signal	AM	34	C	29	C	29	C	32	C	30	C
		PM	39	D	41	D	44	D	40	D	40	D
4. McHenry Avenue/SR-108	Signal	AM	12	B	11	B	11	B	11	B	11	B
		PM	9	A	8	A	8	A	9	A	9	A
5. SR-108/Patterson Road	Signal	AM	10	A	8	A	8	A	9	A	8	A
		PM	14	B	12	B	12	B	14	B	13	B
6. McHenry Avenue/ Kiernan Avenue	Signal	AM	26	C	14	B	14	B	14	B	14	B
		PM	28	C	15	B	14	B	15	B	14	B
7. McHenry Avenue/ Claratina Avenue	Signal	AM	33	C	30	C	30	C	31	C	29	C
		PM	53	D	39	D	42	D	36	D	37	D
8. Coffee Road/Claribel Road	Signal	AM	18	B	13	B	11	B	14	B	14	B
		PM	17	B	12	B	12	B	13	B	13	B
9. Coffee Road/Claratina Avenue	Signal	AM	24	C	23	C	23	C	25	C	23	C
		PM	25	C	23	C	23	C	23	C	23	C
10. Oakdale Road/ Patterson Road	Signal	AM	26	C	21	C	21	C	22	C	22	C
		PM	33	C	28	C	28	C	32	C	34	C
11. Oakdale Road/ Claribel Road	Signal	AM	35	D	18	B	18	B	18	B	18	B
		PM	42	D	19	B	20	C	20	B	20	B
12. Oakdale Road/ Claratina Avenue	Signal	AM	21	C	23	C	23	C	25	C	24	C
		PM	21	C	18	B	18	B	19	B	19	B
13. 1st Street/SR-108	Signal	AM	48	D	23	C	23	C	27	C	30	C
		PM	56	**E**	31	C	32	C	37	D	38	D
14. Roselle Avenue/Claribel Road	Signal	AM	39	D	4	A	4	A	4	A	4	A
		PM	90	**F**	4	A	5	A	5	A	5	A
15. Claus Road/SR-108	Signal	AM	15	B	5	A	5	A	8	A	8	A
		PM	20	B	6	A	7	A	11	B	11	B

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
16. Claus Road/Claribel Road	Signal	AM	31	C	20	C	20	C	18	B	17	B
		PM	38	D	25	C	27	C	19	B	21	C
17. Crane Road/ Patterson Road	Signal	AM	5	A	3	A	3	A	3	A	3	A
		PM	14	B	3	A	3	A	4	A	9	A
18. Bentley Road/ Claribel Road	SSSC/ Signal	AM	3	A	2	A	2	A	16	C	16	C
		PM	4	A	3	A	3	A	14	B	14	B
19. Oak Avenue/SR-108	Signal	AM	22	C	11	B	11	B	11	B	11	B
		PM	25	C	12	B	13	B	12	B	12	B
20. SR-108/SR-120SR-108	Signal	AM	56	E	28	C	28	C	28	C	35	C
		PM	74	E	32	C	36	D	32	C	36	D
21. SR-108/Maag Avenue	Signal	AM	24	C	18	B	18	B	20	C	21	C
		PM	25	C	17	B	18	B	18	B	18	B
22. Albers Road/Patterson Road	Signal	AM	28	C	18	B	18	B	23	C	23	C
		PM	26	C	25	C	25	C	26	C	25	C
23. Albers Road/Claribel Road	Signal	AM	21	C	16	B	16	B	6	A	7	A
		PM	15	B	13	B	13	B	8	A	8	A
24. Oakdale Road/ new SR-108	Signal	AM	Not Applicable Under No-Build Conditions		9	A	9	A	8	A	8	A
		PM			19	B	13	B	13	B	14	B
25. Roselle Ave/ new SR-108	Signal	AM	Not Applicable Under No-Build Conditions		11	B	11	B	10	B	10	B
		PM			15	B	12	B	12	B	13	B
26. Crane Road/ new SR-108	Signal	AM			11	B	11	B	Intersection Does Not Exist			
		PM			31	C	14	B				
27. Albers Road/ new SR-108	Signal	AM			19	B	19	B	20	C	20	B
		PM			35	C	18	B	18	B	17	B
28. Stearns Connection/ new SR-108	Signal (1B, 2B)/Round-about (1A, 2A)	AM			5	A	5	A	4	A	7	A
		PM			5	A	5	A	5	A	8	A
29. New SR-108/ SR-120/108	Round-about	AM			5	A	4	A	5	A	4	A
		PM			5	A	4	A	5	A	4	A
30. McHenry Ave/Charity Way	Signal	AM			6	A	6	A	4	A	6	A
		PM			11	B	8	A	8	A	8	A

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
31. McHenry Ave/Galaxy Way	Signal	AM			5	A	5	A	6	A	6	A
		PM			29	C	10	A	10	A	10	A
32. Coffee Road/ Frontage Road (N)	Signal	AM			2	A	2	A	2	A	2	A
		PM			10	A	2	A	2	A	4	A
33. Coffee Road/ Frontage Road (S)	Signal	AM			2	A	2	A	3	A	3	A
		PM			12	B	2	A	2	A	4	A
34. Oakdale Road/ Frontage Road (S)	Signal	AM	Not Applicable Under No-Build Conditions		3	A	3	A	3	A	3	A
		PM			12	B	4	A	4	A	6	A
35. Roselle Ave/ Frontage Road (S)	Signal	AM			5	A	5	A	5	A	5	A
		PM			11	B	5	A	5	A	5	A
36. Claribel Realigned (N)/ Davis Road	SSSC	AM			2	A	2	A	2	A	2	A
		PM			2	A	2	A	2	A	2	A
37. Claus Road/Claribel Realigned (N)	Signal	AM			6	A	6	A	7	A	7	A
		PM			18	B	11	B	11	B	11	B
38. Claus Road/Claribel Realigned (S)	Signal	AM			7	A	7	A	2	A	2	A
		PM			19	B	2	A	2	A	4	A
39. Stearns/Stearns Connection	Signal (AWSC - 1B)	AM			3	A	3	A	3	A	Intersection Does Not Exist	
		PM			7	A	3	A	3	A		
40. New Access Road/ new SR-108	Round-about	AM			Intersection Does Not Exist		4	A	Intersection Does Not Exist		4	A
		PM					4	A			4	A

Notes: Results in bold represent unacceptable levels of service as determined based on applicable standards of relevant jurisdictions.
1. Results based on SimTraffic simulation of 10 runs.
2. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection, Roundabout = roundabout controlled intersection
3. Signalized and all-way stop intersection level of service based on weighted average control delay per vehicle, according to the 2010 Highway Capacity Manual.
4. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the 2010 Highway Capacity Manual in the notation: average (worst approach).
5. Roundabout analysis based on Sidra 6.0 traffic analysis software using the HCM Roundabout Analysis methodology with California-specific values.
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-9: 2046 Peak Hour Intersection Analysis

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
1. Carver Road/Kiernan Avenue (SR-219)	Signal	AM	30	C	42	D	41	D	36	D	37	D
		PM	28	C	46	D	46	D	40	D	40	D
2. Tully Road/Kiernan Avenue (SR-219)	Signal	AM	27	C	30	C	28	C	28	C	28	C
		PM	>100	**F**	45	D	47	D	40	D	42	D
3. McHenry Avenue/Ladd Road	Signal	AM	60	**E**	51	D	52	D	54	D	55	**E**
		PM	>100	**F**	>100	**F**	>100	**F**	>100	**F**	>100	**F**
4. McHenry Avenue/SR-108	Signal	AM	12	B	13	B	13	B	12	B	12	B
		PM	11	B	10	A	10	A	11	B	11	B
5. SR-108/Patterson Road	Signal	AM	>100	**F**	>100	**F**	>100	**F**	>100	**F**	>100	**F**
		PM	>100	**F**	16	B	17	B	55	D	41	D
6. McHenry Avenue/ Kiernan Avenue	Signal	AM	>100	**F**	16	B	16	B	16	B	16	B
		PM	58	**E**	19	B	20	B	17	B	18	B
7. McHenry Avenue/ Claratina Avenue	Signal	AM	> 100	**F**	89	**F**	100	**F**	>100	**F**	98	**F**
		PM	> 100	**F**	>100	**F**	>100	**F**	>100	**F**	>100	**F**
8. Coffee Road/Claribel Road	Signal	AM	31	C	23	C	26	C	28	C	25	C
		PM	32	C	18	B	20	B	19	B	20	B
9. Coffee Road/Claratina Avenue	Signal	AM	>100	**F**	39	D	40	D	47	D	47	D
		PM	>100	**F**	79	**E**	71	**E**	47	D	50	D
10. Oakdale Road/ Patterson Road	Signal	AM	33	C	23	C	24	C	26	C	26	C
		PM	38	D	33	C	35	C	38	D	38	D
11. Oakdale Road/Claribel Road	Signal	AM	45	D	24	C	25	C	25	C	26	C
		PM	76	**E**	28	C	26	C	31	C	31	C
12. Oakdale Road/Claratina Avenue	Signal	AM	42	D	41	D	40	D	50	D	44	D
		PM	68	**E**	32	C	33	C	35	D	35	D
13. 1st Street/SR-108	Signal	AM	>100	**F**	32	C	33	C	39	D	51	D
		PM	>100	**F**	59	**E**	55	**E**	73	**E**	>100	**F**
14. Roselle Avenue/ Claribel Road	Signal	AM	>100	**F**	16	B	16	B	16	B	16	B
		PM	>100	**F**	23	C	23	C	24	C	26	C
15. Claus Road/SR-108	Signal	AM	15	B	6	A	6	A	16	B	15	B
		PM	16	B	6	A	8	A	16	B	17	B

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
16. Claus Road/Claribel Road (new SR-108)	Signal	AM	61	E	33	C	35	D	27	C	28	C
		PM	59	E	51	D	47	D	37	D	37	D
17. Crane Road/Patterson Road	Signal	AM	17	B	13	B	13	B	11	B	11	B
		PM	>100	**F**	14	B	14	B	20	C	21	C
18. Bentley Road/Claribel Road	SSSC/ Signal	AM	7 (22)	A (C)	11	B	11	B	26	D	25	C
		PM	29 (90)	D (**F**)	12	B	12	B	32	D	30	D
19. Oak Avenue/SR-108	Signal	AM	17	B	14	B	15	B	13	B	13	B
		PM	17	B	15	B	16	B	15	B	16	B
20. SR-108/SR-120	Signal	AM	>100	**F**	36	D	100	**F**	36	D	48	D
		PM	>100	**F**	46	D	98	**F**	52	D	72	**E**
21. SR-108/Maag Avenue	Signal	AM	29	C	22	C	24	C	24	C	25	C
		PM	31	C	21	C	24	C	23	C	26	C
22. Albers Road/Patterson Road	Signal	AM	52	**D**	25	C	25	C	36	**D**	39	**D**
		PM	37	**D**	35	C	34	C	38	**D**	41	**D**
23. Albers Road/Claribel Road	Signal	AM	32	C	20	C	20	C	10	A	10	A
		PM	23	C	19	B	18	B	12	B	11	B
24. Oakdale Road/ new SR-108	Signal	AM	Not Applicable Under No-Build Conditions		14	B	14	B	14	B	14	B
		PM			19	B	19	B	20	C	20	C
25. Roselle Ave/ new SR-108	Signal	AM	Not Applicable Under No-Build Conditions		17	B	16	B	15	B	15	B
		PM			15	B	15	B	15	B	16	B
26. Crane Road/ new SR-108	Signal	AM			20	B	17	B	Intersection Does Not Exist			
		PM			31	C	32	C				
27. Albers Road/ new SR-108	Signal	AM			40	D	35	C	37	D	35	D
		PM			35	C	30	C	29	C	29	C
28. Stearns Connection (Smith Road – 2B)/ new SR-108	Signal (Round-about)	AM			15 (7)	B (A)	8 (5)	A (A)	14 (7)	B (A)	10 (4)	B (A)
		PM			16 (8)	B (A)	9 (6)	A (A)	17 (8)	B (A)	12 (5)	B (A)
29. New SR-108/ SR-120/108	Signal (Round-about)	AM			13 (7)	B (A)	7 (4)	A (A)	14 (7)	B (A)	6 (4)	A (A)
		PM			16 (6)	B (A)	9 (4)	A (A)	16 (6)	B (A)	10 (4)	B (A)
30. McHenry Ave/Charity Way	Signal	AM			8	A	8	A	8	A	8	A
		PM			11	B	11	B	11	B	11	B

Intersection	Traffic Control[1]	Peak Hour	No-Build Alternative		Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
			Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]	Delay (secs / veh)[2,3]	LOS[2,3]
31. McHenry Ave/Galaxy Way	Signal	AM			12	B	12	B	12	B	12	B
		PM			29	C	28	C	25	C	25	C
32. Coffee Road/Frontage Road (N)	Signal	AM			10	A	10	A	10	B	10	B
		PM			10	A	10	B	10	A	10	A
33. Coffee Road/Frontage Road (S)	Signal	AM			12	B	13	B	12	B	12	B
		PM			12	B	12	B	11	B	12	B
34. Oakdale Road/Frontage Road (S)	Signal	AM	Not Applicable Under No-Build Conditions		12	B	11	B	12	B	12	B
		PM			12	B	13	B	13	B	12	B
35. Roselle Ave/Frontage Road (S)	Signal	AM			10	B	10	A	10	B	10	B
		PM			11	B	11	B	11	B	11	B
36. Claribel Realigned (N)/Davis Road	SSSC	AM			2 (7)	A (A)	2 (7)	A (A)	2 (7)	A (A)	2 (7)	A (A)
		PM			2 (8)	A (A)	1 (7)	A (A)	1 (12)	A (B)	1 (8)	A (A)
37. Claus Road/Claribel Realigned (N)	Signal	AM			11	B	11	B	13	B	13	B
		PM			18	B	18	B	19	B	19	B
38. Claus Road/Claribel Realigned (S)	Signal	AM			12	B	12	B	8	A	8	A
		PM			19	B	27	C	9	A	9	A
39. Stearns/Stearns Connection	Signal (AWSC - 1B)	AM			7	A	2 (8)	A (A)	6	A	Intersection Does Not Exist	
		PM			7	A	4	A	8	A		
40. New Access Road/ new SR-108	Signal (Round-about)	AM			Intersection Does Not Exist		5 (4)	A (A)	Intersection Does Not Exist		5 (4)	A (A)
		PM					5 (4)	A (A)			5 (4)	A (A)

Notes: Results in bold represent unacceptable levels of service as determined based on applicable standards of relevant jurisdictions.
1. Results based on SimTraffic simulation of 10 runs.
2. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection, Roundabout = roundabout controlled intersection
3. Signalized and all-way stop intersection level of service based on weighted average control delay per vehicle, according to the 2010 Highway Capacity Manual.
4. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the 2010 Highway Capacity Manual in the notation: average (worst approach).
5. Roundabout analysis based on Sidra 6.0 traffic analysis software using the HCM Roundabout Analysis methodology with California-specific values.
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

An Intersection Control Evaluation (ICE) summary, per Caltrans Policy Directive 13-02 (Traffic Operations Policy Directive), was performed at each of the proposed at-grade state highway intersections to identify the most effective intersection traffic control strategy (i.e., roundabout or traffic signal). Signalized and Unsignalized Intersection Design and Research AID (SIDRA) software package operations tools were also utilized for assessing effectiveness of roundabouts at the proposed intersections.

The following 20 criteria were used in order to determine final intersection control recommendations (page 118 of the *Final Traffic Operations Report for the North County Corridor*):

- Project Cost
- Meet Purpose and Need
- Meet Driver Expectation
- Reduce Accident Severity
- Improve Pedestrian Safety
- Improve Bicyclist Safety
- Improve Level of Service
- Minimize Queues
- Vehicle Hours of Travel
- Vehicle Hours of Delay
- Create Gap in Traffic (for driveway access)
- Accommodate STAA Trucks
- Minimize Right of Way Impacts
- Reduce Emissions
- Minimize Environmental Impacts
- Accommodate Access to Surrounding Properties
- Provide Aesthetic Opportunities
- Reduce Maintenance Costs
- Received Public/Stakeholder Support
- Reduce Fuel Consumption

An evaluation of all applicable warrants has been conducted and additional factors (e.g., congestion, approach conditions, driver confusion) were considered before the decision to install a signal was made. Detailed signal warrant calculations are provided in Appendix L of the *Final Traffic Operations Report for the North County Corridor* (March 2015) for the traffic analysis and report of the project area. This report encompasses an analysis and discussion of existing traffic operations and impacts, as well as those related to each of the proposed alternatives within the project description.

Roundabouts were selected through preparation of an Intersection Control Evaluation (ICE) summary, per Caltrans Policy Directive 13-02 (Traffic Operations Policy Directive), which was performed at each of the proposed at-grade state highway intersections to identify the most effective intersection traffic control strategy (i.e., roundabout or traffic signal). Signalized and Unsignalized Intersection Design and Research AID (SIDRA) software package operations tools were also utilized for assessing effectiveness of roundabouts at the proposed intersections. Roundabouts continue to operate at an acceptable level of service in the future (2046), and the roadways have sufficient capacity for the future volumes of traffic.

The following intersections are the remaining eight that would continue to operate at unacceptable levels under some or all project alternatives:

- McHenry Avenue/Ladd Road during the morning and evening peak hour of all scenarios
- SR-108/Patterson Road during the morning peak hour of all scenarios
- McHenry Avenue/Claratina Avenue during morning and evening peak hours of all scenarios
- Coffee Road/Claratina Avenue during the evening peak hour of Alternatives 1A and 1B and the morning peak hour of Alternative 2A
- 1st Street/SR-108 during the evening peak hour of Alternatives 1B, 2A, and 2B
- SR-108/SR-120 during the morning and evening peak hours of Alternative 1B and the evening peak hour of Alternative 2B
- Albers Road/Patterson Road during the morning and evening peak hour of Alternatives 2A and 2B

Some of the intersections listed above are outside the state right-of-way. The local agencies have reviewed these results and acknowledge that several of the intersections will have substandard level of service in the future. Note that at locations that operate at unacceptable service levels in the future, all of the project alternatives would either result in no change to the intersection level of service or provide a slight improvement. Therefore, none of the project alternatives would result in a degradation of traffic operations at any of the study intersections. With implementation of any of the project alternatives, all intersections along the new North County Corridor (including frontage roads) are expected to operate at acceptable service levels. The new single-point urban interchanges (SPUI) at existing SR-108, Coffee Road, Oakdale Road, and Roselle Avenue are expected to operate at LOS B.

As shown in Table 3.1.6-10, in 2026 in the no-build scenario all study segments operate at LOS D or better during the morning and evening peak hours.

The four Build Alternatives would reduce the peak hour demand volume along the existing SR-108, generally increasing the average travel speed along the study corridor. All four Build Alternatives either improve or maintain at least LOS C operations along the study segments.

As shown in Table 3.1.6-11, in 2046 the no-build scenario all study segments operate at LOS C or better during the morning and evening peak hours, except for eastbound Kiernan Avenue between Carver Road and Tully Road, which is expected to operate at LOS F in the evening peak hour and westbound SR-108/SR-120 between Yosemite Avenue and Maag Avenue, which is expected to operate at LOS E in the evening peak hour.

The four Build Alternatives would reduce the peak hour demand volume along the existing SR-108, generally increasing the average travel speed along the study corridor. All four project alternatives either improve or maintain at least LOS D operations along the study segments.

Table 3.1.6-10: 2026 Urban Street Analysis

Segment	Direction[1]	Class Type	No Build[2]		Alt. 1A[2]		Alt. 1B[2]		Alt. 2A[2]		Alt. 2B[2]	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1. Kiernan Avenue (new SR-108) between Carver Road and Tully Road	EB	I	28 - C	24 - D	32 - C	31 - C	32 - C	31 - C	32 - C	31 - C	32 - C	31 - C
	WB	I	29 - C	35 - B	31 - C	34 - C	30 - C	34 - C	31 - C	34 - C	31 - C	34 - C
2. Kiernan Avenue (new SR-108) between Tully Road and McHenry Avenue	EB	I	41 - B	40 - B	Analyzed as Expressway							
	WB	I	44 - A	41 - B								
3. Existing SR-108 between Ladd Road and Kiernan Avenue	NB	I	35 - B	30 - B	33 - C	31 - C	33 - C	31 - C	33 - C	32 - C	33 - C	32 - C
	SB	I	36 - B	36 - B	36 - B	36 - B	36 - B	36 - B	37 - B	36 - B	37 - B	36 - B
4. Existing SR-108 between Kiernan Avenue and Pelandale Avenue	NB	II	31 - B	31 - B	29 - B	28 - C	29 - B	28 - C	29 - B	28 - C	29 - B	28 - C
	SB	II	29 - B	28 - C	25 - C	26 - C	25 - C	26 - C	25 - C	25 - C	25 - C	25 - C
14. Existing SR-108 between Oakdale Road and 1st Street	EB	III	30 - B	26 - C	32 - A	31 - A	32 - A	31 - A	32 - A	30 - A	32 - A	30 - A
	WB	III	31 - A	31 - A	33 - B	28 - B	33 - B	27 - C	32 - B	25 - C	32 - B	25 - C
15. Existing SR-108 between 1st Street and Claus Road	EB	III	28 - B	27 - B	33 - A	32 - A	33 - A	32 - A	32 - A	30 - B	32 - A	29 - B
	WB	III	24 - C	22 - C	26 - B	25 - B	26 - B	25 - B	25 - B	24 - C	25 - B	24 - C
28. Existing SR-108 between Oak Avenue and SR-120	EB	IV	21 - B	21 - B	24 - B	23 - B	22 - B	23 - B	23 - B	23 - B	21 - B	21 - B
	WB	IV	24 - B	24 - B	26 - A	25 - A	26 - A	25 - A	26 - A	25 - A	26 - A	25 - A
32. Existing SR-108/SR-120 between Yosemite Avenue and Maag Avenue	EB	III	25 - B	26 - B	28 - B	29 - B	27 - B	27 - B	28 - B	28 - B	26 - B	28 - B
	WB	III	19 - C	19 - C	23 - C	22 - C	21 - C	22 - C	23 - C	22 - C	24 - C	23 - C

Notes:
1. EB = Eastbound, WB = Westbound
2. Results in column are reported as: Average Speed (MPH) – LOS

Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-11: 2046 Urban Street Analysis

Segment	Direction[1]	Class Type	No Build[2]		Alt. 1A[2]		Alt. 1B[2]		Alt. 2A[2]		Alt. 2B[2]	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1. Kiernan Avenue (new SR-108) between Carver Road and Tully Road	EB	I	27 - C	11 - F	29 - C	23 - D	29 - C	23 - D	30 - C	23 - D	30 - C	23 - D
	WB	I	25 - D	27 - C	25 - D	26 - D	25 - D	26 - D	26 - D	26 - D	26 - D	25 - D
2. Kiernan Avenue (new SR-108) between Tully Road and McHenry Avenue	EB	I	40 - B	36 - B	Analyzed as Expressway							
	WB	I	38 - B	31 - C								
3. Existing SR-108 between Ladd Road and Kiernan Avenue	NB	I	33 - C	32 - C	31 - C	30 - C	31 - C	30 - C	31 - C	30 - C	31 - C	30 - C
	SB	I	33 - C	34 - C	36 - B	35 - B	36 - B	35 - B	36 - B	36 - B	36 - B	36 - B
4. Existing SR-108 between Kiernan Avenue and Pelandale Avenue	NB	II	26 - C	29 - B	28 - B	24 - C	28 - B	24 - C	29 - B	25 - C	29 - B	25 - C
	SB	II	28 - B	18 - D	23 - C	21 - D	23 - C	21 - D	24 - C	21 - D	24 - C	21 - D
14. Existing SR-108 between Oakdale Road and 1st Street	EB	III	26 - B	24 - B	29 - B	31 - A	32 - A	30 - A	28 - B	30 - B	31 - A	30 - B
	WB	III	30 - B	30 - B	32 - A	27 - B	29 - B	26 - B	31 - A	26 - B	28 - B	25 - B
15. Existing SR-108 between 1st Street and Claus Road	EB	III	29 - B	29 - B	33 - A	32 - A	32 - A	32 - A	31 - A	29 - B	31 - A	28 - B
	WB	III	24 - C	18 - C	25 - B	24 - C	25 - B	24 - C	24 - C	22 - C	23 - C	21 - C
28. Existing SR-108 between Oak Avenue and SR-120	EB	IV	18 - C	20 - B	23 - B	23 - B	22 - B	22 - B	21 - B	22 - B	19 - B	20 - B
	WB	IV	25 - B	25 - B	26 - A	25 - A	25 - A	25 - A	26 - A	25 - A	26 - A	25 - A
32. Existing SR-108/SR-120 between Yosemite Avenue and Maag Avenue	EB	III	25 - B	26 - B	27 - B	28 - B	26 - B	26 - B	26 - B	27 - B	26 - B	26 - B
	WB	III	20 - C	13 - E	21 - C	19 - C	18 - D	15 - D	23 - C	20 - C	23 - C	19 - C

Notes:
1. EB = Eastbound, WB = Westbound
2. Results in column are reported as: Average Speed (MPH) – LOS

Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-12 shows the two-lane highway results for 2026. All study segments are expected to operate at LOS E under no-build conditions, except for SR-120 from Wamble Road to Lancaster Road, which would operate at LOS C. Construction of any of the four project alternatives would decrease the volume demand along the existing SR-108 and SR-120, which would either increase or have no effect on average travel speed and either decrease or have no effect on percent time spent following. Therefore, all of the Build Alternatives would either maintain or improve the LOS reported for each segment.

Table 3.1.6-13 shows the two-lane highway results for 2046. All study segments are expected to operate at LOS E under no-build conditions, except for SR-120 from Wamble Road to Lancaster Road, which would operate at LOS D or better. Construction of any of the four project alternatives would decrease the volume demand along the existing SR-108 and SR-120, which would either increase or have no effect on average travel speed and either decrease or have no effect on percent time spent following. Therefore, all of the Build Alternatives would either maintain or improve the LOS reported for each segment.

Table 3.1.6-14 and Table 3.1.6-15 for 2026 show results for each alternative, in each direction for 2026. The planned North County Corridor freeway/expressway would operate at LOS B or better during the morning and evening peak hours for each Build Alternative.

Table 3.1.6-16 and Table 3.1.6-17 for 2046 show results for each alternative, in each direction. The planned North County Corridor freeway/expressway would operate at LOS C or better during the morning and evening peak hours for each Build Alternative.

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Table 3.1.6-12: 2026 Two-Lane Highway Analysis

Location	Peak Hour	BFFS	No-Build			Alternative 1A			Alternative 1B			Alternative 2A			Alternative 2B		
			PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS
Existing SR-108 from McHenry Avenue to Oakdale Road	AM	55	66	42	D	40	44	D	41	44	D	58	42	D	59	42	D
	PM		84	40	**E**	84	41	**E**	84	41	**E**	84	40	**E**	84	40	**E**
Existing SR-108 from Claus Road to Crane Road	AM	55	75	39	**E**	27	46	C	33	46	C	62	43	D	65	42	D
	PM		85	39	**E**	72	44	D	77	43	D	82	40	**E**	83	40	**E**
Existing SR-108 from Crane Road to Oak Avenue	AM	45	81	29	**E**	68	34	**E**	70	33	**E**	66	36	**E**	69	35	**E**
	PM		84	29	**E**	75	32	**E**	79	31	**E**	74	33	**E**	77	32	**E**
SR-120 from Maag Avenue to Wamble Road	AM	50	76	34	**E**	76	34	**E**	61	38	**E**	76	34	**E**	70	37	**E**
	PM		87	31	**E**	87	31	**E**	76	36	**E**	87	31	**E**	74	37	**E**
SR-120 from Wamble Road to Lancaster Road	AM	55	57	47	C	57	47	C	57	47	C	57	47	C	57	47	C
	PM		63	47	C	63	47	C	63	47	C	63	47	C	63	47	C

Bold denotes locations that operate overall at unacceptable service levels.
1. BFFS = Base Free-Flow Speed, mph
2. PTSF = Percent Time Spent Following, %
3. ATS = Average Travel Speed, mph
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-13: 2046 Two-Lane Highway Analysis

Location	Peak Hour	BFFS	No-Build			Alternative 1A			Alternative 1B			Alternative 2A			Alternative 2B		
			PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS	PTSF	ATS	LOS
Existing SR-108 from McHenry Avenue to Oakdale Road	AM	55	78	39	**E**	52	43	D	54	42	D	71	40	**E**	72	40	**E**
	PM		88	39	**E**	87	39	**E**	88	39	**E**	88	39	**E**	88	38	**E**
Existing SR-108 from Claus Road to Crane Road	AM	55	85	36	**E**	33	46	C	43	45	D	73	40	D	75	40	**E**
	PM		87	37	**E**	76	43	D	80	42	D	86	39	**E**	88	38	**E**
Existing SR-108 from Crane Road to Oak Avenue	AM	45	85	27	**E**	72	33	**E**	75	32	**E**	71	35	**E**	72	34	**E**
	PM		86	27	**E**	77	31	**E**	81	29	**E**	75	31	**E**	78	30	**E**
SR-120 from Maag Avenue to Wamble Road	AM	50	88	30	**E**	88	30	**E**	72	36	**E**	88	30	**E**	78	35	**E**
	PM		91	28	**E**	91	28	**E**	79	35	**E**	91	28	**E**	85	32	**E**
SR-120 from Wamble Road to Lancaster Road	AM	55	57	47	C	57	47	C	57	47	C	57	47	C	57	47	C
	PM		65	46	D	65	46	D	65	46	D	65	46	D	65	46	D

Bold denotes locations that operate overall at unacceptable service levels.
1. BFFS = Base Free-Flow Speed, mph
2. PTSF = Percent Time Spent Following, %
3. ATS = Average Travel Speed, mph
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-14: 2026 Multilane, Freeway, and Ramp Analysis – Eastbound

Location	Number of Lanes	Method	Peak Hour	Alt 1A		Alt 1B		Alt 2A		Alt 2B	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
Carver Road to Tully Road	3	Multilane	AM	5	A	5	A	5	A	5	A
			PM	8	A	8	A	8	A	8	A
Tully Road to McHenry Avenue	3+Aux	Weave	AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue Off-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue On-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue to Coffee Road	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
Coffee Road Off-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
Coffee Road On-Ramp	3	Merge	AM	6	A	6	A	6	A	6	A
			PM	11	B	11	B	10	A	10	A
Coffee Road to Oakdale Road	3	Basic	AM	4	A	4	A	4	A	4	A
			PM	9	A	9	A	8	A	8	A
Oakdale Road Off-Ramp	2	Diverge	AM	0	A	0	A	0	A	0	A
			PM	6	A	6	A	4	A	4	A
Oakdale Road On-Ramp	2	Merge	AM	11	B	11	B	10	B	10	A
			PM	14	B	14	B	12	B	11	B
Oakdale Road to Roselle Avenue	2	Basic	AM	15	B	9	A	8	A	8	A
			PM	12	B	12	B	10	A	10	A
Roselle Avenue Off-Ramp	2	Diverge	AM	13	B	13	B	12	B	12	B
			PM	17	B	16	B	12	B	14	B
Roselle Avenue On-Ramp	2	Merge	AM	12	B	12	B	11	B	11	B
			PM	14	B	13	B	12	B	11	B
Roselle Avenue to Claus Road	2	Multilane	AM	12	B	12	B	10	A	11	A
			PM	14	B	14	B	12	B	11	B
Claus Road to Crane Road	2	Multilane	AM	13	B	13	B	4	A	4	A
			PM	14	B	13	B	8	B	8	A
Crane Road to Albers Road	2		AM	9	A	9	A	2	A	2	A
			PM	9	A	8	A	3	A	4	A
Albers Road to Stearns Road	2		AM	6	A	4	A	5	A	4	A
			PM	8	A	6	A	8	A	5	A
Stearns Road to SR-120	2		AM	4	A	3	A	4	A	3	A
			PM	6	A	4	A	5	A	3	A

Notes:
1. Multilane = HCM Multilane Highways Analysis; Basic = HCM Basic Freeway Analysis; Merge = HCM Merge Analysis; Diverge = HCM Diverge Analysis; Weave = Leisch Method
2. Density is in passenger cars per mile per lane
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-15: 2026 Multilane, Freeway, and Ramp Analysis Multilane, Freeway, and Ramp Analysis – Westbound

Location	Number of Lanes	Method	Peak Hour	Alt 1A		Alt 1B		Alt 2A		Alt 2B	
				Density[1]	LOS	Density1	LOS	Density[1]	LOS	Density[1]	LOS
SR-120 to Stearns Road	2	Multilane	AM	5	A	4	A	5	A	3	A
			PM	4	A	4	A	4	A	6	A
Stearns Road to Albers Road	2		AM	6	A	5	A	6	A	4	A
			PM	7	A	5	A	6	A	4	A
Albers Road to Crane Road	2		AM	7	B	6	A	3	A	3	A
			PM	10	A	9	A	2	A	2	A
Crane Road to Claus Road	2		AM	13	B	13	A	7	A	7	A
			PM	14	B	14	B	6	A	6	A
Claus Road to Roselle Avenue	2		AM	13	B	13	B	11	B	10	A
			PM	14	B	14	B	11	A	10	A
Roselle Avenue Off-Ramp	2	Diverge	AM	15	B	15	B	13	B	12	B
			PM	16	B	16	B	13	B	13	B
Roselle Avenue On-Ramp	2	Merge	AM	13	B	13	B	11	B	10	B
			PM	13	B	13	B	11	B	11	B
Roselle Avenue to Oakdale Road	2	Basic	AM	11	B	11	B	9	A	11	A
			PM	12	B	11	B	9	A	9	A
Oakdale Road Off-Ramp	2	Diverge	AM	15	B	15	B	13	B	13	B
			PM	16	B	16	B	13	B	13	B
Oakdale Road On-Ramp	2	Merge	AM	9	A	9	A	7	A	10	B
			PM	7	A	12	B	5	A	5	A
Oakdale Road to Coffee Road	3	Basic	AM	13	B	8	A	7	A	7	A
			PM	7	A	7	A	6	A	6	A
Coffee Road Off-Ramp	3	Diverge	AM	14	B	14	B	12	B	12	B
			PM	12	B	12	B	11	B	11	B
Coffee Road On-Ramp	3+Aux	Weave	AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
Coffee Road to McHenry Avenue	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue Off-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue On-Ramp	3	Merge	AM	10	B	10	B	10	A	10	A
			PM	9	A	9	A	9	A	9	A
McHenry Avenue to Tully Road	3	Multilane	AM	10	A	10	A	10	A	10	A
			PM	8	A	9	A	8	A	8	A
Tully Road to Carver Road	3		AM	8	A	8	A	8	A	8	A
			PM	8	A	8	A	7	A	7	A

Notes:
1. Multilane = HCM Multilane Highways Analysis; Basic = HCM Basic Freeway Analysis; Merge = HCM Merge Analysis; Diverge = HCM Diverge Analysis; Weave = Leisch Method
2. Density is in passenger cars per mile per lane
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-16: 2046 Multilane, Freeway, and Ramp Analysis – Eastbound

Location	Number of Lanes	Method	Peak Hour	Alt 1A		Alt 1B		Alt 2A		Alt 2B	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
Carver Road to Tully Road	3	Multilane	AM	9	A	9	A	8	A	8	A
			PM	14	B	14	B	13	B	13	B
Tully Road to McHenry Avenue	3+Aux	Weave	AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue Off-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue On-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	C	Weave	C	Weave	B	Weave	B
McHenry Avenue to Coffee Road	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	C	Weave	C	Weave	B	Weave	B
Coffee Road Off-Ramp	3+Aux		AM	Weave	A	Weave	A	Weave	A	Weave	A
			PM	Weave	C	Weave	C	Weave	B	Weave	B
Coffee Road On-Ramp	3	Merge	AM	9	A	9	A	8	A	8	A
			PM	16	B	16	B	15	B	15	B
Coffee Road to Oakdale Road	3	Basic	AM	7	A	7	A	7	A	6	A
			PM	14	B	14	B	13	B	13	B
Oakdale Road Off-Ramp	2	Diverge	AM	3	A	3	A	1	A	1	A
			PM	14	B	14	B	13	B	13	B
Oakdale Road On-Ramp	2	Merge	AM	11	B	10	B	8	A	8	A
			PM	15	B	14	B	12	B	12	B
Oakdale Road to Roselle Avenue	2	Basic	AM	15	B	14	B	14	B	12	B
			PM	19	B	18	B	16	B	16	B
Roselle Avenue Off-Ramp	2	Diverge	AM	19	B	19	B	17	B	16	B
			PM	23	C	23	C	21	C	20	C
Roselle Avenue On-Ramp	2	Merge	AM	19	B	19	B	17	B	17	B
			PM	20	B	20	B	17	B	17	B
Roselle Avenue to Claus Road	2	Multilane	AM	20	C	20	C	18	C	18	B
			PM	21	C	21	C	19	C	18	B
Claus Road to Crane Road	2	Multilane	AM	19	C	19	C	13	B	12	B
			PM	19	C	18	B	15	B	13	B
Crane Road to Albers Road	2		AM	16	B	15	B	11	B	10	A
			PM	13	B	12	B	13	B	12	B
Albers Road to Stearns Road	2		AM	7	A	6	A	7	A	5	A
			PM	11	A	8	A	10	A	6	A
Stearns Road to SR-120	2		AM	4	A	4	A	4	A	4	A
			PM	6	A	5	A	6	A	5	A

Notes:
1. Multilane = HCM Multilane Highways Analysis; Basic = HCM Basic Freeway Analysis; Merge = HCM Merge Analysis; Diverge = HCM Diverge Analysis; Weave = Leisch Method
2. Density is in passenger cars per mile per lane
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-17: 2046 Multilane, Freeway, and Ramp Analysis – Westbound

Location	Number of Lanes	Method	Peak Hour	Alt 1A		Alt 1B		Alt 2A		Alt 2B	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
SR-120 to Stearns Road	2	Multilane	AM	6	A	5	A	5	A	4	A
			PM	5	A	4	A	4	A	4	A
Stearns Road to Albers Rd	2		AM	8	A	6	A	8	A	5	A
			PM	8	A	6	A	9	A	5	A
Albers Road to Crane Rd	2		AM	9	A	8	A	12	B	10	A
			PM	17	B	16	B	12	B	11	B
Crane Road to Claus Rd	2		AM	18	B	17	B	12	B	11	B
			PM	22	C	21	C	16	B	15	B
Claus Road to Roselle Avenue	2		AM	20	C	20	C	20	C	16	B
			PM	23	C	23	C	19	C	18	C
Roselle Avenue Off-Ramp	2	Diverge	AM	22	C	21	C	19	B	18	B
			PM	24	C	24	C	20	C	20	C
Roselle Avenue On-Ramp	2	Merge	AM	18	B	18	B	16	B	16	B
			PM	21	C	20	C	17	B	17	B
Roselle Avenue to Oakdale Rd	2	Basic	AM	17	B	16	B	16	B	14	B
			PM	19	C	18	C	15	B	15	B
Oakdale Rd Off-Ramp	2	Diverge	AM	22	C	21	C	19	B	18	B
			PM	24	C	24	C	20	C	20	B
Oakdale Rd On-Ramp	2	Merge	AM	21	C	21	C	19	B	19	B
			PM	20	B	20	B	17	B	17	B
Oakdale Rd to Coffee Rd	3	Basic	AM	13	B	13	B	12	B	12	B
			PM	12	B	12	B	11	A	10	A
Coffee Road Off-Ramp	3	Diverge	AM	19	B	19	B	18	B	18	B
			PM	18	B	18	B	16	B	16	B
Coffee Road On-Ramp	3+Aux	Weave	AM	Weave	B	Weave	B	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
Coffee Road to McHenry Avenue	3+Aux		AM	Weave	B	Weave	B	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue Off-Ramp	3+Aux		AM	Weave	B	Weave	B	Weave	A	Weave	A
			PM	Weave	A	Weave	A	Weave	A	Weave	A
McHenry Avenue On-Ramp	3	Merge	AM	16	B	16	B	15	B	15	B
			PM	14	B	14	B	13	B	13	B
McHenry Avenue to Tully Road	3	Multilane	AM	17	B	17	B	16	B	16	B
			PM	14	B	14	B	13	B	13	B
Tully Road to Carver Road	3		AM	14	B	14	B	13	B	13	B
			PM	14	B	14	B	13	B	13	B

Notes:
1. Multilane = HCM Multilane Highways Analysis; Basic = HCM Basic Freeway Analysis; Merge = HCM Merge Analysis; Diverge = HCM Diverge Analysis; Weave = Leisch Method
2. Density is in passenger cars per mile per lane
Source: Traffic Operations Report, 2015, and TOR Addendum, 2019

Table 3.1.6-18 shows the estimated east-west travel times between the project start location (Kiernan Avenue/Tully Road) and the Stanislaus County/Tuolumne County border. Under no-build conditions, these types of trips are likely to use existing SR-108 through the communities of Riverbank and Oakdale and, under project conditions, these trips are likely to use the North County Corridor facility. As found in Table 3.1.6-18, the project alternatives would reduce east-west travel times between 16 percent and 20 percent depending on the alternative and future year.

Table 3.1.6-18: Travel Times in Minutes Between Kiernan Avenue/Tully Intersection and Stanislaus County/Tuolumne County Border

No-Build	Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B	
2026								
Travel Time	**Travel Time**	**% Change**	**Travel Time**	**% Change**	**Travel Time**	**% Change**	**Travel Time**	**% Change**
32.5	27.0	-17.0%	27.2	-16.3%	27.3	-16.1%	27.5	-15.6%
2046								
Travel Time	**Travel Time**	**% Change**	**Travel Time**	**% Change**	**Travel Time**	**% Change**	**Travel Time**	**% Change**
34.1	27.2	-20.2%	27.4	-19.7%	27.5	-19.4%	27.6	-19.1%

Source: Traffic Operations Report for the North County Corridor, 2015, and TOR Addendum, 2019

All Build Alternatives would meet the purpose of the project. The following are the key project benefits:

- By 2046, the daily traffic volume (including trucks) on existing SR-108 through the communities of Riverbank and Oakdale would be reduced between 11 percent and 27 percent depending on the alternative.
- By 2026, the project would reduce the daily vehicle hours of delay in the project area by 8 percent to 21 percent depending on the alternative; by 2046, the project would reduce the daily vehicle hours of delay by 12 percent to 34 percent depending on the alternative.
- By 2026, the project would reduce the east-west travel time for travelers between Kiernan Avenue (SR-219) and existing SR-108/SR-120 east of Oakdale by 16 percent to 17 percent depending on the alternative; by 2046, the project would reduce the east-west travel time by 19 percent to 20 percent depending on the alternative.
- The new North County Corridor facility would be access controlled with a reduced number of conflict areas compared to existing SR-108 and, as the result, the average operating speed for trucks is expected to be between 50 and 55 miles per hour and the reduced number of access locations would improve travel time reliability.

The Build Alternatives are expected to reduce delay at many of the study locations; however, there will still be locations that continue to operate at unacceptable service levels in the future. Some of these locations are outside the state right-of-way. These issues have been discussed with the local agencies. The local agencies recognize and accept that several of the local road segments and intersections will have substandard level of service in the future. Note that at locations that operate at unacceptable service levels in the future, all of the Build Alternatives either would result in no change to the level of service or would provide a slight improvement in

operations. Therefore, none of the Build Alternatives would result in a degradation of traffic operations at any of the study locations.

Bicycle and Pedestrian Corridors

The North County Corridor will accommodate a Class 3 bike route in each direction on shoulders from Claus Road to the North County Corridor end at SR-108/SR-120. This facility would allow bicyclists to be separated from vehicle traffic while maintaining the rural character of county roads. A Class 2 bike facility is planned in the future and is well within the limits of the proposed corridor. Incorporation of the bike routes would enhance the bikeway network in Stanislaus County, and is consistent with the Non-Motorized Transportation Master Plan (StanCOG, 2013).

The North County Corridor will provide pedestrian access including sidewalks and crosswalks along all crossroads in Segment 1 and at locations of existing pedestrian access in Segments 2 and 3.

Americans with Disabilities Act (ADA) standards for bicycle and pedestrian access and safe mobility will be met where bicycles and pedestrians are not restricted.

A Complete Street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to roadways in all contexts including local roads and state highways in rural, suburban, and urban areas. The NCC would not preclude a complete streets facility from being designed approaching the project within the local jurisdictions. NCC is compatible with Caltrans' intended Complete Streets goals for transportation facilities within Stanislaus County. NCC is also compatible with the regional bikeway projects in the StanCOG Non-Motorized Transportation Master Plan. Where interchanges and local roads are being reconstructed, pedestrian access and Americans with Disabilities Act (ADA) compliance is provided where warranted by current and future land use. Policies related to bicycles and pedestrians are in place in the cities of Modesto, Riverbank and Oakdale, and Stanislaus County's general plans. Along Segments 2 and 3 from Claus Road to the NCC terminus at proposed SR-108/SR 120 intersection, the expressway could accommodate a shared Class III bike route within the proposed shoulders of NCC. Pedestrian access including sidewalks, ADA curb ramps and crosswalks would be provided along crossroads in Segment 1 and at locations with existing pedestrian access in Segments 2 and 3. Vehicle, bicycle, and pedestrian access included in the project will be provided in accordance with ADA requirements.

Public Parking

The project proposes to widen the existing McHenry Avenue south of the McHenry Avenue/Kiernan Avenue intersection and improve the McHenry Avenue/Galaxy Way intersection. Existing on-street public parking along McHenry Avenue will be removed. Road closure plans and parking impact will be included in the Traffic Management Plan.

Public Transportation

Sections of Stanislaus Regional Transit (StaRT) Route 60 operate along McHenry Avenue and Kiernan Avenue (see Figure 3.1.6-5 in Appendix A). Construction of the North County Corridor

expressway and frontage roads would require temporary closure of roadway section along these two streets. During closures, Route 60 would be redirected; after construction is completed, the route would continue to operate along its usual route. No other section of Route 60 or other bus routes would be affected. A small section of MAX Routes 22 and 27 operate near the Kiernan Avenue/McHenry Avenue where construction of the expressway and frontage roads would occur. This section would be closed or redirected during construction. After construction, Stratos Way would no longer have access to Kiernan Avenue; those routes would be rerouted to nearby frontage roads.

During construction, public transit users may experience delays and disruptions caused by lane restrictions, lane closures, or temporary detours. In addition, local roads may experience higher than normal traffic volumes as a result of disruptions on major roads and arterials. Measures TR-1 and TR-2 will minimize potential disruptions to public transportation during construction of the proposed facility.

Amtrak operation would not be substantially affected by the project. The new Claribel Road and North County Corridor would be elevated over the BNSF railroad with separate overhead structures. The BNSF railroad would remain at its current alignment, and service would not be affected during construction.

Temporary Construction Impacts

During construction, communities within the project area could experience temporary disruptions to existing travel patterns during construction activities due to lane restrictions, lane closures, or temporary detours. In turn, these disruptions could affect traffic on other major roads within the project area in Stanislaus County. Local roads may experience higher than normal traffic volumes as a result of disruptions on major roads and arterials. To offset temporary disruptions during construction, Caltrans would prepare and implement a Traffic Management Plan. The plan would be designed to minimize project-related traffic delay and accidents by adopting traditional traffic mitigation strategies and through an innovative combination of public and motorist information, demand management, incident management, system management, alternate route strategies, and construction strategies. The Traffic Management Plan would include detour signage, public transportation information, construction timing, and other useful construction information for residents and motorists. Measures TR-1 and TR-2 will minimize potential disruptions to residents and businesses during construction of the proposed facility.

No-Build Alternative

Under No-Build Alternative conditions, yearly increase on daily traffic volumes would be about 3.1 percent on SR-219 (Kiernan Avenue) between SR-99 and McHenry Avenue; 0.6 percent on existing SR-108 between McHenry Avenue and Yosemite Avenue; and 1.2 percent on existing SR-108 east of Yosemite Avenue; SR-219 (Kiernan Avenue) between SR-99 and McHenry Avenue. Under the No-Build Alternative, no improvements except for necessary maintenance would occur to the existing streets. LOS of the existing streets will continue to worsen, and travel time will continue to increase.

Under the No-Build Alternative, no construction would take place and there would be no changes to the traffic and transportation/pedestrian and bicycle facilities. Consequently, there would be no impacts to traffic and transportation/pedestrian and bicycle facilities and no improvements to the traffic and transportation/pedestrian and bicycle facilities would occur.

Avoidance, Minimization and/or Mitigation Measures

Measure TR-1: To offset temporary disruptions during construction, Caltrans shall consult with local agencies, including fire and law enforcement, and shall prepare and implement a Traffic Management Plan to minimize traffic disruption during construction activities. The plan would be made available to the public and to each jurisdiction within the study area. Caltrans would conduct public outreach to discuss the Traffic Management Plan. The following elements shall be included in the plan: parking, detours/road closures, pedestrian/commercial/residential access, and media campaign.

Parking**:** To minimize and reduce parking impact, project team members will conduct meetings with owners of affected businesses during the final project design phase and assess the parking needs. Parking spaces including on-street parking, public parking lots, or private parking areas, would be accommodated where feasible. The project would also build additional public parking spaces. Parking and transit studies will be conducted during the final phase of project design, and necessary parking facilities will be accommodated at feasible locations that are accessible by both motorists and public transit users.

Detour/Road Closures**:**. A media campaign will be organized to release detour routes and traffic information. Detour signage will be installed near construction zone to effectively redirect traffic. Potential adverse impacts to circulation and access will be avoided by maintaining as many open lanes as possible along Claribel Road in both directions during construction.

Pedestrian/Commercial/Residential Access**:** Pedestrian routes along community road interchanges, overcrossings, and undercrossings will be reestablished and will be clearly defined outside of construction zones. Potential economic impacts related to decreased patronage of businesses will be minimized by locating directional signage to key commercial centers and providing for accessible ingress/egress routes into parking lots. Ingress/egress routes to neighborhoods adjacent to or affected by construction activity shall be established and potential detours should be clearly posted.

Media Campaign**:** A Media Campaign will be organized to release information regarding road closure, detour routes, construction location, construction schedule, and other information related to transportation.

Public Transportation

To minimize disruption to public transportation, the following element shall be included in the Traffic Management Plan:

Measure TR-2: To minimize potential impacts to public transportation routes, the Traffic Management Plan will include specific information concerning relocated bus stops or bus detours. Bus stops should be clearly identified and accessible to pedestrians through safe walkways and connections to business and residential centers.

3.1.7 Visual Resources

Regulatory Setting

The NEPA of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S. Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration in its implementation of NEPA (23 U.S. Code 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA PRC Section 21001[b]).

Affected Environment

The *Visual Impact Assessment* (January 2016) was prepared to evaluate potential impacts the project could have on visual resources within the project area. The report was prepared to define the project setting and view (called a "viewshed"), identify key views for visual assessment, analyze existing visual resources and viewer response, show the visual appearance of Build Alternatives, assess the visual impacts of Build Alternatives, and explain proposed methods to reduce adverse visual impacts.

Project Setting and Existing Visual Resources

The western end of all Build Alternatives is at the SR-219 (Kiernan Ave)/Tully Road intersection. The eastern end of Alternatives 1A and 2A end along existing SR-108/SR-120 just east of the City of Oakdale boundary. Alternatives 1B and 2B end farther east of the Alternatives 1A and 2A end point along existing SR-108/SR-120 near Lancaster Road. The project occurs in the cities of Modesto, Riverbank, and Oakdale in Stanislaus County in the San Joaquin Valley of Central California. The landscape is characterized by flat land dominated by ranches and agricultural lands. The land use within the corridor is mostly rural agricultural, but also includes areas of suburban residences and commercial properties.

The project area contains about 4,640 acres, is generally flat and varies in elevation from between 100 to 250 feet above mean sea level. The landform is generally unaltered, with small changes including canals and drainage features to accommodate agriculture. The land cover is highly altered due to the heavy agricultural use in the area. Views from the road are generally limited, consisting of the directly adjacent agricultural land and residences. There are no scenic resources within the project area and no officially designated national or state scenic highways.

Types of Viewers

There are two major types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has its own particular level of viewer exposure and viewer sensitivity, resulting in distinct and predictable visual concerns for each group, which help to predict their responses to visual changes.

Highway Neighbors (Views to the Road)—Local Residents

- Highway neighbors are people who have views to the road. They can be subdivided into different viewer groups by land use. For example, residential, commercial, industrial, retail, institutional, civic, educational, recreational, and agricultural land uses may generate highway neighbors or viewer groups with distinct reasons for being in the corridor and therefore having distinct responses to changes in visual resources. For this project, local residents were the highway neighbors that were considered.

Highway Users (Views from the Road)—Motorists

- Highway users are people who have views from the road. They can be subdivided into different viewer groups in two different ways—by mode of travel or by reason for travel. For example, subdividing highway users by mode of travel may yield pedestrians, bicyclists, transit riders, car drivers and passengers, and truck drivers. Dividing highway users or viewer groups by reason for travel creates categories like tourists, commuters, and haulers. It is also possible to use both mode and reason for travel simultaneously, creating a category like bicycling tourists, for example. For this project, motorists were the highway users that were considered.

Viewer Response

Viewer response is a measure or prediction of the viewer's reaction to changes in the visual environment and has two dimensions as previously mentioned, viewer exposure and viewer sensitivity.

Viewer Exposure

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. Location relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. Quantity refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. Duration refers to how long a viewer is able to keep an object in view. The longer an object can be kept in view, the more exposure. High viewer exposure helps predict that viewers will have a response to a visual change.

For the residential viewer, exposure is moderately high. The location of residents was rated moderate as many of the residences are physically close to the project area. However, the quantity of the viewers is low due to the relatively small number of homes in the project area. The duration of these viewers is high, due to their long-term and constant presence in the area.

For the motorist viewer, exposure is moderately high. The location of the motorists was rated high, as the motorists would travel along the new roadway. The quantity of motorists that would travel this section of the road would be moderately high as the corridor is heavily used by commuters and tourists going to Yosemite. The duration of these viewers would be low, due to the rate of speed that the new road would operate at and the extended period of exposure.

Viewer Sensitivity

Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values. Activity relates to the preoccupation of viewers. Are they preoccupied, thinking of something else, or are they truly engaged in observing their surroundings? The more they are actually observing their surroundings, the more sensitivity viewers will have of changes to visual resources. Awareness relates to the focus of view—the focus is wide and the view general or the focus is narrow and the view specific. The more specific the awareness, the more sensitive a viewer is to change.

Local values and attitudes also affect viewer sensitivity. If the viewer group values aesthetics in general or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers will be more sensitive to visible changes. High viewer sensitivity helps predict that viewers will have a high concern for any visual change.

Residents within the project area are a viewer group; their sensitivity is high due to the large amount of time spent in the area and potential changes to their views from their homes. The awareness of this group is moderately high because the residents' focus is not on the road. The value of aesthetics to residents is likely to be high in the project area considering the rural surroundings.

Motorists are a viewer group; their sensitivity is moderately low due to the relatively short time span spent along the proposed project. The motorists' activity level within the project area is high as they are traveling at a moderate rate of speed and not able to be engaged in observing their surroundings. The awareness of motorists is high as it is focused on the roadway. While some of the motorists would be residents, including local commuters, a large number of motorists are likely to be long distance commuters and tourists traveling to Yosemite and are less likely to value aesthetics within the project area.

Group Viewer Response

The descriptions of viewer exposure and viewer sensitivity for each viewer group were merged to establish the overall viewer response of each group.

The resident viewer group has a moderately high viewer response due to moderately high viewer exposure and moderately high viewer sensitivity.

The motorist viewer group has a moderate viewer response due to moderately high viewer exposure and moderately low viewer sensitivity.

Definition of Visual Impact Levels

Low - Low negative change to existing visual resources, and low viewer response to that change. May or may not require mitigation.

Moderately Low – Low negative change to the visual resource with a moderate viewer response, or moderate negative change to the resource with a low viewer response. Impact can be mitigated using conventional practices.

Moderate - Moderate negative change to the visual resource with moderate viewer response. Impact can be mitigated within five years using conventional practices.

Moderately High - Moderate negative visual resource change with high viewer response or high negative visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required would generally take longer than five years to mitigate.

High - A high level of negative change to the resource or a high level of viewer response to visual change such that extraordinary architectural design and landscape treatment may not mitigate the impacts below a high level. An alternative project design may be required to avoid high negative impacts.

Visual Assessment Units and Key Views

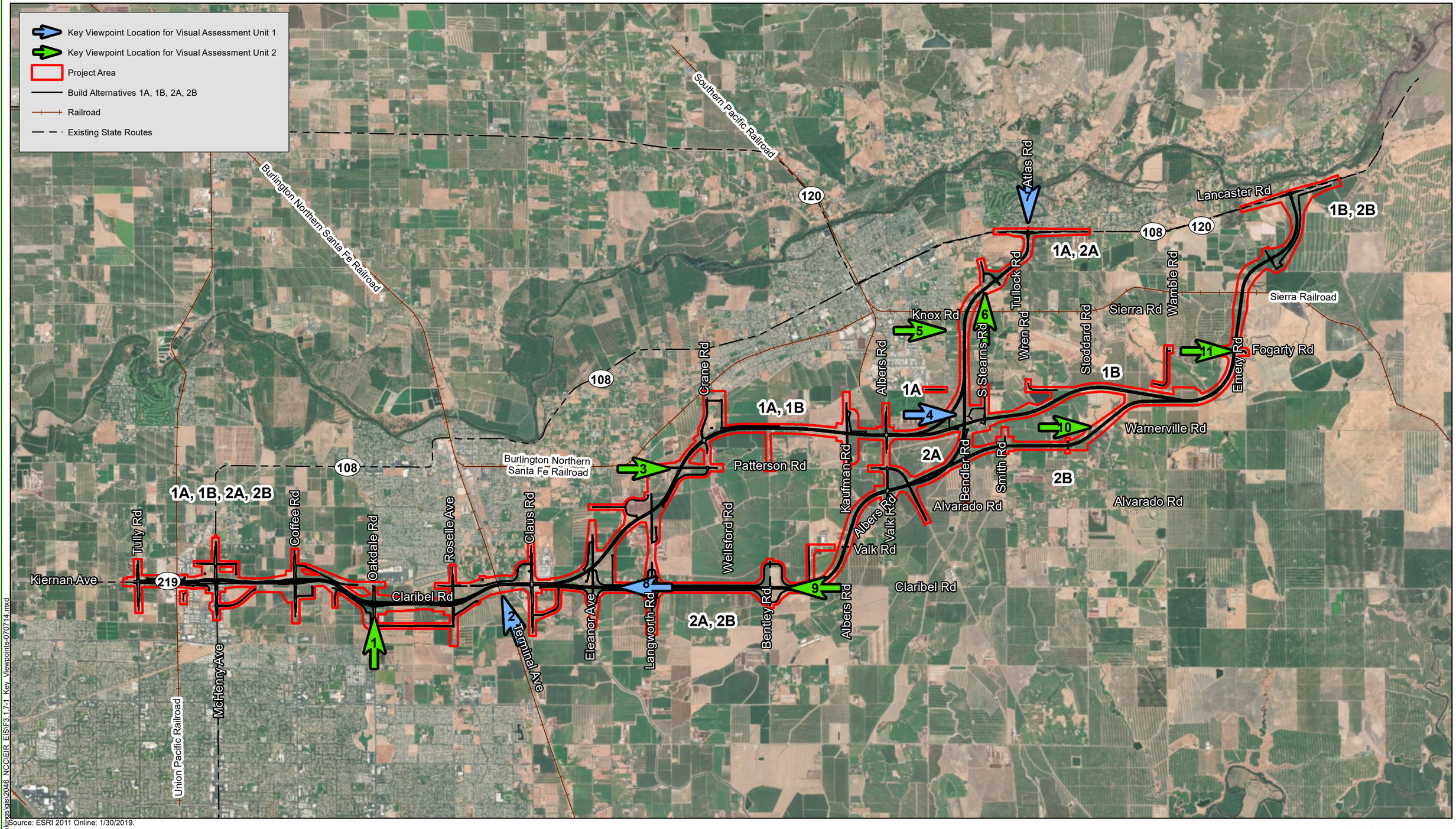
The project corridor was divided into a series of “outdoor rooms” or visual assessment units (VAU). Each visual assessment unit has its own visual character and visual quality. A visual assessment unit is typically defined by the limits of a particular viewshed; however, for this project, visual assessment units were defined by similar landscape settings.

For this project, two visual assessment units were identified within the project corridor:

- Visual Assessment Unit 1: Developed – Rural Built Environment – evaluates the views of both motorists and residents along and next to the existing developed segments of the proposed highway.

- Visual Assessment Unit 2: Agricultural and Undeveloped Environment – evaluates the views of both motorists and residents along and next to the existing agricultural and undeveloped segments of the proposed highway.

See Figure 3.1.7-1 for the two visual assessment units in the project corridor and their associated 11 key views.



\\kjmps\gis\2046_NCCIEIR_EIS\F3.1.7-1 Key Viewpoints-070714.mxd

Source: ESRI 2011 Online; 1/30/2019.

0 1 2 3 4 Miles

FIGURE 3.1.7-1
Key Views
EA: 10-0S8000, Project ID # 1000000263
North County Corridor New State Route 108 Project
Stanislaus County, California

- **Visual Assessment Unit 1: Developed – Rural Built Environment**

  Visual Assessment Unit 1 (VAU1) is located in the developed portions of the project area. VAU1 consists of lands with rural residential developments. The dominant human-made features found in VAU1 are the residential structures and hardscape, including the existing roads, fences, irrigation canals, utilities and railroads; however, agricultural and undeveloped areas do exist within the background of VAU1. Four key views are within VAU1:

  - Key View 2: This view shows northbound Terminal Avenue, about 0.1 mile south of Claribel Road for the proposed 1A, 2A, 1B, and 2B alignments. This view has moderate-low vividness due to the barren land cover, flat landform, and lack of memorable features. Intactness in this view is moderate as the features in this view are appropriate for the area. Unity in this view is low as the features in this view are not well integrated. Overall, visual quality in this view is moderate-low.
  - Key View 4: This view shows eastbound Warnerville Road, about half a mile west of South Stearns Road for the proposed 1A and 2A alignments. Vividness in this view is moderate due to the open agricultural fields and unobstructed view of the open sky but still contains limited views and lack of memorable features. Intactness in the view is moderate as visual eyesores are present in the view such as utilities; however, these are suitable for the area. Unity in this view is moderate as the manmade and agricultural features combine in a structured pattern but the view still lacks natural elements. Overall, visual quality in this view is moderate.
  - Key View 7: This view shows southbound Atlas Road and the intersection with SR-108/SR-120 for the proposed 1A and 2A alignments. Vividness in this view is low due to the lack of distinctive or memorable visual features. Intactness in this view is moderately high as the visual elements in the view are appropriate for the landscape, and the only visual eyesores in this view include the utility lines. Unity in the view is moderate-low as the visual elements combine to form an organized visual pattern. Overall, visual quality in this scene is moderate.
  - Key View 8: This view shows westbound Claribel Road, about 0.2 mile east of Eleanor Avenue/McGee Avenue for the proposed 2A and 2B alignments and is surrounded by rural residential land, with agricultural fields in the background. This view has moderate-low vividness due to the contrasting nature of the build and natural environment. Intactness in this view is moderate-low as the large electrical towers and utilities encroach on this rural view. Unity in this view is moderate as the human-made and natural elements in the view do not form a cohesive visual pattern. Overall, visual quality is moderate.

- **Visual Assessment Unit 2: Agricultural and Undeveloped Environment**

  Visual Assessment Unit 2 (VAU2) is located in the agricultural and undeveloped portions of the project area. VAU2 consists of lands used for agricultural crops, livestock, and barren/undeveloped lands within the region. The only dominate human-made features are the existing roads, fences, utilities, and structures used for livestock; however, residential development does exist within the background of VAU2. The following 7 key views are within VAU2:

- Key View 1: This view shows northbound Oakdale Road, about 0.1 mile south of Claribel Road for the proposed 1A, 2A, 1B, and 2B alignments, and is surrounded by orchards, the dominant land cover type in the area. This view has moderate-low vividness due to the lack of distinctive visual features; the flat landform allows only the adjacent orchard to be visible. Intactness is moderate-high as the agricultural nature of this view is only disrupted by the utilities and roadway. Unity is moderate as the orchards and rural road integrate with each other in a structured, but not harmonious, visual pattern. Overall, visual quality in this view is moderate.
- Key View 3: This view shows eastbound Patterson Road, about 0.1 mile east of Langworth Road for the proposed 1A and 1B alignments. Vividness in this view is low due to the limited views and lack of memorable features. Intactness is moderate as the only visual encroachment in the view is from the utilities. Unity in this view is moderately low as the human-made features combine in a structured but disjointed pattern. Overall, visual quality in this view is moderately low.
- Key View 5: This view faces east and shows the proposed 1A and 2A alignments, about 0.2 mile south of Knox Road, along Townhill Road. Vividness in this view is high as it allows for relatively distant views over seasonally green grazing land. Intactness is high due to the agricultural nature of most features in the view, but is limited by the large electrical tower in the view. Unity in this view is moderately low as the visual patterns in the grazing land, orchard, electrical tower, and structures are not well integrated with each other. Overall, visual quality in this view is moderate-high.
- Key View 6: This view shows northbound South Stearns Road, about 0.2 mile north of Sierra Road for the proposed 1A and 2A alignments. Vividness in this view is moderate due to the views of open sky and agricultural fields, but lack of memorable features. Intactness is moderate as the only visual encroachment in the view is by the residential fencing and utilities. Unity in this view is moderately low as the human-made features combine in a structured but disjointed pattern. Overall, visual quality in this view is moderate.
- Key View 9: This view shows the view from a rural residence on Claribel Rd, 0.5 miles west of Albers Rd, looking west toward the proposed alignment for Build Alternatives 2A and 2B. Vividness in this view is moderate-low due to the limited views and lack of memorable features. Intactness is moderate as the only visual encroachment in the view is from the utilities. Unity in this view is moderately low as the human-made features combine in a structured but disjointed pattern. Overall, visual quality in this view is moderately low.
- Key View 10: This view shows eastbound Warnerville Road, about 0.25 mile east of Stoddard Road for the proposed 2B alignment. The vividness in this view is moderate due to view of open agricultural fields and sky but lacks of memorable visual elements. Intactness in this view is moderate as the agricultural nature of the view only slightly disrupted by the utilities. Unity in the view is moderate-low as the features do not come together to form a cohesive pattern. Overall, visual quality of this view is moderate.
- Key View 11: This view shows eastbound Fogarty Road, about 0.25 mile west of Emery Road for the proposed 1B and 2B alignments. Vividness in this view is moderate-low due to the limited views and lack of memorable features.

Intactness is moderate as the only visual encroachment in the view is from the utilities. Unity in this view is moderately low as the human-made features combine in a structured but disjointed pattern. Overall, visual quality in this view is moderately low.

Environmental Consequences

Resource Change for the Build Alternatives

The project would have only moderate impacts on visual resources because:

- Build Alternatives would not block views of visual resources.
- Though the project would convert agricultural land to a built environment, a large amount of agricultural land would still remain in the area.

The Build Alternatives would have only moderate impacts on visual resources for the following reasons:

Build Alternative 1A

Project changes within Alternative 1A include the extension of Kiernan Avenue/SR-219 at the Tully Road intersection to the end of the North County Corridor at the intersection of SR-108/SR-120 and Atlas Road, which will predominantly require new roadway construction through the region. Alternative 1A will include four single-point urban interchanges, four overcrossing structures for existing roads over the North County Corridor, two undercrossing structures over existing local roads, and two undercrossing/overhead structure combinations over existing local roads. Alternative 1A will also include 16 at-grade canal crossings, three elevated canal crossing, one grade separation over the BNSF railroad, two elevated railroad crossings with overhead structures, and two at-grade four-way roundabouts, one at a new intersection and one at an existing intersection.

Visual Assessment Unit 1 Resource Change (same for Alternatives 1A, 2A, 1B, 2B):

The overall visual resource change in Visual Assessment Unit 1 as a result of Alternative 1A is expected to be moderate-low, as visual character and quality would be a low change from the current existing conditions. The change in visual character would be somewhat compatible, as all of the attributes that make up the visual character would slightly change as a result of the proposed alternative. The change in visual quality from Alternative 1A would be moderate as the vividness of Visual Assessment Unit 1 would decrease with the reduced number of distinctive, contrasting, and diverse elements, including the reduced number of rural residences and structures in the area. Still, the intactness and unity of the area will increase due to the currently developed lands next to Alternative 1A becoming more developed, and developed in a more intact and uniform manner.

Visual Assessment Unit 2 Resource Change:

The overall visual resource change in Visual Assessment Unit 2 as a result of Alternative 1A is expected to be moderate-low, as visual character and quality would change from the current existing conditions. The change in visual character would be somewhat incompatible, as the attributes that make up the visual character would change as a result of the proposed alternative. The change in visual quality from the proposed Alternative 1A would be moderate-high as the intactness and unity of the area decrease. The new built environment will be a non-

typical visual intrusion into the otherwise undeveloped rural agricultural setting of the landscape, and will not combine with existing elements to create a coherent, harmonious visual pattern.

Build Alternative 2A

Project changes within Alternative 2A include the extension of Kiernan Avenue/SR-219 at the Tully Road intersection to the end of the North County Corridor at the intersection of SR-108/SR-120 and Atlas Road, which will require new roadway construction through the region, although less so when compared to Alternative 1A due to its continuation along Claribel Road for an additional 3.5 miles. Alternative 2A will include four single-point urban interchanges, two overcrossing structures for existing roads over North County Corridor, two undercrossing structures over existing local roads, and two undercrossing/overhead structure combinations over existing local roads. Alternative 2A will also include 25 canal crossings, including 21 at-grade and four elevated canal crossings, one grade separation over the BNSF railroad, two elevated railroad crossings with overhead structures, and two at-grade, four-way roundabouts; one at a new intersection and one at an existing intersection.

Visual Assessment Unit 1 Resource Change:

Same as Build Alternative 1A.

Visual Assessment Unit 2 Resource Change:

The overall visual resource change in Visual Assessment Unit 2 as a result of Alternative 2A is expected to be moderate-low, as visual character and quality would change from the current existing conditions. The change in visual character would be somewhat incompatible, as the attributes that make up the visual character would change as a result of the proposed alternative. The change in visual quality from the proposed Alternative 2A would be moderate as the intactness and unity of the area decrease. The intactness and unity of the area would decrease due to the lands next to Alternative 2A being converted from mostly undisturbed agricultural lands to a heavily disturbed mostly built environment to accommodate the new highway.

Build Alternative 1B

Project changes within Alternative 1B include the extension of Kiernan Avenue/SR-219 at the Tully Road intersection to the end of the North County Corridor at the intersection of SR-108/SR-120, about half a mile southwest of Lancaster Road, which will require new roadway construction through the region. Alternative 1B will include four single-point urban interchanges, five overcrossing structures for existing roads over the North County Corridor, 20 at-grade canal crossings, two elevated canal crossings, one grade separation over the BNSF railroad, two elevated railroad crossings with overhead structures, one at-grade four-way roundabout, and one at-grade three-way roundabout.

Visual Assessment Unit 1 Resource Change:

Same as Build Alternative 1A.

Visual Assessment Unit 2 Resource Change:

The overall visual resource change in Visual Assessment Unit 2 as a result of Alternative 1B is expected to be moderate-low, as visual character and quality would change from the current

existing conditions. The change in visual character would be somewhat incompatible, as the attributes that make up the visual character would change as a result of the proposed alternative. The change in visual quality from the proposed Alternative 1B would be moderate-high as the intactness and unity of the area decrease. The intactness and unity of the area would decrease due to the lands next to Alternative 1B being converted from mostly undisturbed agricultural lands to a heavily disturbed mostly built environment to accommodate the new highway.

Build Alternative 2B

Project changes within Alternative 2B include the extension of Kiernan Avenue/SR-219 at the Tully Road intersection to the end of the North County Corridor at the intersection of SR-108/SR-120, about half a mile southwest of Lancaster Road; this will require new roadway construction through the region, though less so when compared to Alternative 1B due to its continuation along Claribel Road for an additional 3.5 miles. Alternative 2B will include four single-point urban interchanges, five overcrossing structures for existing roads over the North County Corridor, one undercrossing structure over existing local roads, 31 at-grade and three elevated canal crossings, one grade separation over the BNSF railroad, two elevated railroad crossings with overhead structures, one at-grade four-way roundabout, and one at-grade three-way roundabout.

Visual Assessment Unit 1 Resource Change:

Same as Build Alternative 1A.

Visual Assessment Unit 2 Resource Change:

The overall visual resource change in Visual Assessment Unit 2 as a result of Alternative 2B is expected to be moderate, as visual character and quality would change noticeably from the current existing conditions. The change in visual character would be somewhat incompatible, as the attributes that make up the visual character would change as a result of the proposed alternative. The change in visual quality from the proposed Alternative 2B would be moderate as the intactness and unity of the area decrease. The intactness and unity of the area would decrease due to the lands next to Alternative 2B being converted from mostly undisturbed agricultural lands to a heavily disturbed mostly built environment to accommodate the new highway.

Visual Impacts by Key View and Alternative

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key views associated with visual assessment units that would most clearly demonstrate the change in the project's visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering exposure and sensitivity. Key views are analyzed below for each proposed alternative.

This EIR/EIS also considers the potential impacts of a No-Build Alternative. The No-Build Alternative would result in no change to the project corridor. The No-Build Alternative would allow for all of the existing mature trees and vegetation along the project site to remain, as well as all of the existing agricultural lands. However, the No-Build Alternative would also result in more traffic congestion as population growth and the associated amount of freeway travelers continue to increase, which reduces the visual character and quality of the area.

The following section describes and illustrates visual impacts by visual assessment unit, compares existing conditions to the proposed alternatives, and includes the predicted viewer response.

Visual Assessment Unit 1: Developed – Rural Built Environment

Key View 2 - From Terminal Avenue about 0.1 mile south of Claribel Road looking north

Proposed Project Features – Alternatives 1A, 2A, 1B and 2B

Proposed changes under Alternatives 1A, 2A, 1B, and 2B visible in Key View 2 include the new elevated North County Corridor structure and associated earthen fill. The rural residence to the east of Terminal Avenue will be replaced with a view of the earthen fill, and the electrical poles in the background would be very distant. Residential structures in the distance would also no longer be visible as a result of the project. Caltrans fencing would be visible next to the North County Corridor and running up the earthen fill. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1A, 2A, 1B, and 2B; these alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the photo-simulation shown in Figure 3.1.7-3, visual resource change would be low with the Build Alternatives. Visual character change would be compatible as the project creates a new overpass over Terminal Avenue. The existing built environment including residential structures is the dominate feature in the landscape, in which the new North County Corridor structure will replace and become the new dominate feature. Visual quality would be slightly lower as a result of the Build Alternatives and would be rated low, with addition of the elevated alignment combined with the continued barren land cover, flat landform, and lack of memorable features. Intactness of the view would remain moderate, as visual encroachment in the view is the new North County Corridor structure, which is similarly appropriate for the area. Unity would remain moderate-low as the new interchange and North County Corridor will combine with the surrounding environment to continue to create a uniform pattern.

Viewer Response

Key View 2 represents a typical view from a motorist along Terminal Avenue, which will pass under the proposed North County Corridor structures. Motorists would be directly exposed to the changes along Terminal Avenue from the North County Corridor in Visual Assessment Unit 1. Motorists will view vehicles traveling this portion of the North County Corridor each day. The viewer exposure duration is low, as the views will be brief and fleeting, though these viewers would notice change in this portion of the project site. The resident's viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views from residences along Terminal Avenue, south of Claribel Road, are obscured by existing rows of trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-2: KV-2 Existing Condition - Terminal Avenue Looking North

Figure 3.1.7-3: KV-2 Proposed Condition – Terminal Avenue Looking North – Alternatives 1A, 2A, 1B, and 2B

Key View 4 - From Warnerville Road about half a mile west of South Stearns Road looking east

Proposed Project Features – Alternatives 1A and 2A

Proposed changes under Alternatives 1A and 2A visible in Key View 2 include the new elevated North County Corridor structure and associated earthen fill. The rural residence to the south of Warnerville Road will be replaced with a view of the earthen fill, and the open fields and utilities along the side of the road would no longer be visible. Views of the trees to the north of Warnerville Road will also be disrupted by the proposed North County Corridor structures, although the rural residential house in the distance will still be visible. Fences in the view would be removed, and Caltrans fencing would be visible running up the earthen fill. Duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1A and 2A; these alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-5, visual resource change would be low with the Build Alternatives. Visual character change would be somewhat incompatible as the project creates a new elevated overpass over Warnerville Road. The existing built environment including residential structures, power lines, walls, and fences is the dominate feature in the landscape, in which the new elevated North County Corridor structure will replace and become the new dominate feature. Views of open agricultural fields will also be obscured. Visual quality would decrease from moderate to moderate-low due to vividness being rated low as a result of the addition of the elevated alignment combined with the barren land cover, flat landform, and lack of memorable features. Intactness of the view would be slightly lower, but would still be rated moderate, as visual encroachment in the view is the new North County Corridor structure, which will be viewed as a non-typical intrusion. Unity would be slightly lower, but still rated moderate as a result of the Build Alternatives, as the new interchange and North County Corridor will combine with the surrounding built environment to create a more uniform pattern.

Viewer Response

Key View 4 represents a typical view from a motorist along Warnerville Road, which will pass under the proposed North County Corridor structures. The motorists would be directly exposed to the changes along Warnerville Road from the North County Corridor in Visual Assessment Unit 1. Motorists will view vehicles traveling this portion of the North County Corridor each day. The viewer exposure duration is low, as views will be brief and fleeting, though viewers would notice change in this portion of the project site. The resident's viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. As most residents' views along Warnerville Road are obscured by existing structures and trees, viewer response would be moderate for residents. Overall viewer response in Key View 4 would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A and 2A would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-4: KV-4 Existing Condition - From Warnerville Road Looking East

Figure 3.1.7-5: KV-4 Proposed Condition – From Warnerville Road Looking East -- Alternatives 1A and 2A

Key View 7– From Atlas Road and existing SR-108/SR-120 looking south

Proposed Project Features – Alternatives 1A and 2A

Proposed changes under Alternatives 1A and 2A seen in Key View 7 are the new roundabout at the end of North County Corridor at the intersection of SR-108/SR-120 and the new North County Corridor roadway extending into the distance. The orchard south of the existing SR-108 will lose a few rows of trees for new roadway, and the fence line and associated vegetation will be reduced to accommodate the new roadway. Some utilities will remain, and new streetlights will be added to the intersection. Duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1A and 2A; these alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-7, visual resource change would be low with the Build Alternatives. Visual character change would be somewhat incompatible as the project creates a roundabout at the end of the North County Corridor. The existing built environment including residential fences is the dominate feature in the landscape, in which the new roundabout will replace and become the new dominate feature. Visual quality would remain moderate, as vividness would be the same with the Build Alternatives and would remain low due to continued barren land cover, flat landform, and lack of memorable features. Intactness of the view would be slightly higher and be rated as high as a result of the Build Alternative, as the new roundabout will be viewed as a more typical feature in the environment. Unity would be higher and be rated as moderate, as the new roundabout and associated North County Corridor roadway will combine with the surrounding environment to create a more uniform pattern.

Viewer Response

Key View 7 represents a typical view from a motorist along Atlas Road, which will intersect the end of North County Corridor at SR-108/SR-120, at the proposed roundabout. Motorists would be exposed to the changes along Atlas Road from the North County Corridor. Motorists will view vehicles traveling this portion of the North County Corridor each day. Viewer exposure duration is low, as the views will be brief and fleeting, though viewers would notice change in this portion of the project site. The residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. As most residents' views along Warnerville Road are obscured by existing structures and trees, viewer response would be moderate for residents. Overall viewer response would be moderate. Residents were not considered in the viewer response of Key View 7 as views from residents along Atlas Road are obscured by existing fences and trees.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A and 2A would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-6: KV-7 Existing Condition - From Atlas Road and SR-108/SR-120 Looking South

Figure 3.1.7-7: KV-7 Proposed Condition – From Atlas Road and SR-108/SR-120 Looking South - Alternatives 1A and 2A

Key View 8 - From Claribel Road about 0.2 mile east of Eleanor Avenue/McGee Avenue looking west

Proposed Project Features - Alternatives 2A and 2B

Proposed changes under Alternatives 2A and 2B visible in Key View 8 include the addition of the eastbound and westbound North County Corridor lanes and widened local access road to the north and south. The overcrossing structure and associated earthen fill for Eleanor Avenue over the North County Corridor is also visible in the background. The residential structures north of existing Claribel Road would no longer be in the view, nor would the fences. The large electrical towers would no longer be visible from this view as they will be relocated south of the local access roadway. Utilities would shift from their current position along Claribel Road north, next to the proposed local access roadway. Existing fences would be removed and replaced with Caltrans fencing next to the North County Corridor. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 2A and 2B; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

There would be no visual resource change as a result of the proposed project. Visual character change would be somewhat incompatible as the proposed North County Corridor replaces the existing local access road and rural residential development in the vicinity, as shown in Figure 3.1.7-9. The existing rural residential development is the dominate feature in the landscape, in which the North County Corridor will replace and become the new dominate feature. Visual quality would be moderate with the Build Alternatives, as the rural residential development will be replaced with contrasting visual elements, increasing the vividness from moderate low to moderate. Intactness of the view would be slightly higher as well, and would be rated as moderate, as the new roadway and elevated structure in the distance will be viewed as a more typical feature in the built environment. Unity would also be higher and be rated as moderately high, as the new North County Corridor and elevated structure in the distance will further combine with the surrounding environment to create a more uniform pattern.

Viewer Response

Key View 8 represents a typical view from a motorist along Claribel Road, which will become the westbound lane of the North County Corridor; the local road will be moved north and south next to the North County Corridor. Motorists would be exposed to the changes along the new Claribel Road from the North County Corridor. Motorists will view vehicles traveling this portion of the North County Corridor each day. The viewer exposure duration is low, as the views will be brief and fleeting, though viewers would notice change in this portion of the project site. Residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Claribel Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 2A and 2B would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-8: KV-8 Existing Condition -- From Claribel Road Looking West

Figure 3.1.7-9: KV-8 Proposed Condition – From Claribel Road Looking West – Alternatives 2A and 2B

Visual Assessment Unit 2: Agricultural and Undeveloped Environment

Key View 1 - From Oakdale Road about 0.1 mile south of Claribel Road looking north

Proposed Project Features - Alternatives 1A, 2A, 1B, and 2B

Proposed changes under Alternatives 1A, 2A, 1B, and 2B seen in Key View 1 include the widening of Oakdale Road from two lanes to seven lanes to accommodate the new single-point interchange at the intersection of North County Corridor and Oakdale Road. Additional changes include the elevated undercrossing of North County Corridor over Oakdale Road and the associated earthen fill and walls. The Hetch-Hetchy electrical towers will still be visible in the distance, but utilities currently present will be relocated along Oakdale Road and will no longer be visible from this view. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to all alternatives; all alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-11, visual resource change would be moderate-low with the Build Alternatives. Visual character change would be moderately incompatible as the North County Corridor is elevated in this view and would become the dominate feature in the landscape in place of the agricultural fields. The change from mostly rural to a mostly developed environment will block many of the views of the agricultural fields and minimize views of the sky. Due to these changes with the Build Alternatives, visual quality would reduce from moderate to moderate-low due to the vividness being rated low because the orchard would be replaced by asphalt and embankments. Intactness of the view is also reduced from moderate-high to moderate due to the significant loss of orchards from the view. Unity is reduced from moderate to moderate-low as the North County Corridor undercrossing does not form a harmonious visual pattern with the surrounding orchards.

Viewer Response

Key View 1 represents a typical view from a motorist along a local access road. Motorists would be exposed to the changes along the Oakdale Road from the North County Corridor. Vehicles would travel this portion of Oakdale Road each day. The viewer exposure duration depends on the distance of the project site the motorists drive and the density of traffic; especially during peak travel period, these viewers would likely notice change in this portion of the project site. The residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Oakdale Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A, 2A, 1B, and 2B would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-10: KV-1 Existing Condition – From Oakdale Road Looking North

Figure 3.1.7-11: KV-1 Proposed Condition – From Oakdale Road Looking North – Alternatives 1A, 1B, 2A, and 2B

Key View 3 - From eastbound Patterson Road, about 0.1 mile east of Langworth Road

Proposed Project Features - Alternatives 1A and 1B

Proposed changes under Alternatives 1A and 1B seen in Key View 3 are the widening of Patterson Road to add paved shoulders and a two-way left-turn lane. Additional changes include the elevated overcrossing of Patterson Road over North County Corridor and the associated Caltrans fencing along the adjacent orchards. Utilities will now be farther away from Patterson Road. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1A and 1B; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-13, visual resource change would be low with the Build Alternatives. Visual character change would be moderately incompatible as the new Patterson Road looks similar in nature to the existing roadway, though it is wider and elevated in this view. The existing roadway is the dominant feature in the landscape and will continue to be the dominant feature as a result of the project. Visual quality would remain moderately low as vividness would remain low, intactness would remain moderate, and unity would remain moderate-low for the motorists in the area. The project does not provide better views or memorable features, nor does the intactness or unity of the area improve as a result of the new roadway.

Viewer Response

Key View 3 represents a typical view from a motorist along a local access road. Motorists would be exposed to the changes along Patterson Road from the North County Corridor. Vehicles would travel this portion of Patterson Road each day. The viewer exposure duration depends on the distance of the project site the motorists drive and the density of traffic; especially during peak travel period, these viewers would likely notice change in this portion of the project site. Residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Patterson Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A and 1B would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-12: KV-3 Existing Condition – From Patterson Road Looking East

Figure 3.1.7-13: KV-3 Proposed Condition – From Patterson Road Looking East – Alternatives 1A and 1B

Key View 5 - From Townhill Road, about 0.2 mile south of Knox Road, looking east

Proposed Project Features - Alternatives 1A and 2A

Proposed changes under Alternatives 1A and 2A seen in Key View 5 are the addition of a new six-lane roadway and unpaved median where some residential homes in the distance currently exist. These homes would be removed to accommodate the new North County Corridor roadway. The duration of these views would be high; however, the extended period of exposure would be to similar views. The following analyses apply to Alternatives 1A and 2A; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-15, visual resource change would be low with the Build Alternatives. Visual character change would be somewhat incompatible as the new North County Corridor replaces existing residential development, both features. The existing residential homes are the dominant feature in the distant landscape, in which the North County Corridor will replace and become the new dominant feature in the distance. Visual quality would decrease slightly from moderate-high to moderate as vividness would be slightly lower and rated moderate-high, intactness would remain high, and unity would remain moderate-low for the residents in the area. The project does not provide better views or memorable features, nor does the intactness or unity of the area improve as a result of the new roadway in the distance.

Viewer Response

Key View 5 represents a typical view from residents along local roads next to the proposed North County Corridor. The residents would be exposed to the changes from the North County Corridor. Vehicles would travel this portion of the North County Corridor each day. The viewer exposure duration is considered to be fairly long, and residents are highly aware of the surrounding visual environment. Overall viewer response would be moderate-high. Motorists were not considered in the viewer response of Key View 5 as views from motorists along Townhill Road would be too brief, too distant, and obscured by existing structures and trees.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A and 2A would be moderate-high as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-14: KV-5 Existing Condition - From Townhill Road Looking East

Figure 3.1.7-15: KV-5 Proposed Condition – From Townhill Road Looking East – Alternatives 1A and 2A

Key View 6 - From S. Stearns Road about 0.2 mile north of Sierra Road looking north

Proposed Project Features – Alternatives 1A and 2A

Proposed changes under Alternatives 1A and 2A seen in Key View 6 are the addition of the two North County Corridor structures over S. Stearns Road, associated earthen fill, and Caltrans fencing along the fill. The residential development including fences and agricultural fields would no longer exist within this view as a result of the project. Some utilities would continue to exist in the distance of this view. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1A and 2A; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-17, visual resource change would be moderate-low with the Build Alternatives. Visual character change would be moderately incompatible as the proposed North County Corridor structures remove the existing residential development and agricultural fields in the vicinity. The existing residential homes and agricultural fields are the dominant feature in the landscape, in which the North County Corridor will replace and become the new dominant feature. The change from mostly rural to mostly developed environment will block many of the views of the agricultural fields and minimize views of the sky. Due to these changes with the Build Alternatives, visual quality would be moderate-low instead of moderate due to the vividness decreasing from moderate to low; the agricultural lands will be replaced with earthen fill, and views of the orchards would be obscured by the new North County Corridor structures. Intactness of the view would be moderate-low as a result of the project, as visual encroachment in the view is the new North County Corridor structures, which are more visible than the residential fencing and utilities. Unity would remain moderate-low as the new North County Corridor structures continue to combine in a structured and disjointed pattern.

Viewer Response

Key View 6 represents a typical view from a motorist along a local access road. Motorists would be exposed to the changes along S. Stearns Road from the North County Corridor. Vehicles would travel this portion of S. Stearns Road each day. The viewer exposure duration depends on the distance of the project site the motorists drive and the density of traffic; especially during peak travel period, these viewers would notice change in this portion of the project site. The residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Stearns Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 1A and 2A would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-16: KV-6 Existing Condition - From S. Stearns Road Looking North

Figure 3.1.7-17: KV-6 Proposed Condition – From S. Stearns Road Looking North – Alternatives 1A and 2A

Key View 9 – From Claribel Road about half a mile west of Albers Road looking west

Proposed Project Features – Alternatives 2A and 2B

Proposed changes under Alternatives 2A and 2B seen in Key View 9 are the addition of the eastbound and westbound North County Corridor lanes and widened local access roads to the north and south. The line of trees in front of the residential house in the distance will remain in the view, though the agricultural fields would no longer exist within this view as a result of the project. Fences alongside the agricultural fields would be removed and replaced with Caltrans fencing between the North County Corridor and local access roads. The large electrical towers would be south of the southern local access road, in the distance of this view, and the utilities would be relocated north of the northern local access road, in the periphery of this view. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 2A and 2B; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-19, visual resource change would be moderate-low with the Build Alternatives. Visual character change would be moderately incompatible as the proposed North County Corridor replaces the existing Claribel Road and agricultural fields in the area. The existing agricultural fields are the dominant feature in the landscape, in which the North County Corridor will replace and become the new dominant feature. Visual quality would be low with the Build Alternatives due to a low vividness as the agricultural lands will be replaced with pavement. Intactness of the view would be moderate-low, as visual encroachment in the view is the new lanes for the proposed North County Corridor, which are more visible than the existing features. Unity would be low as the new North County Corridor will further combine with the surrounding environment to create a more disjointed pattern.

Viewer Response

Key View 9 represents a typical view from a motorist along a local access road, which will become the proposed North County Corridor. Motorists would be directly exposed to the changes along Claribel Road from the North County Corridor. Vehicles would travel this portion of the North County Corridor each day. The viewer exposure duration depends on the distance of the project site the motorists drive and the density of traffic; especially during peak travel period, these viewers would notice change in this portion of the project site. The resident's viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Claribel Road are obscured by existing trees, so viewer response would be moderate for residents. Overall viewer response would be moderate-high.

Resulting Visual Impact

The resulting visual impact for Alternatives 2A and 2B would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-18: KV-9 Existing Condition - From Claribel Road Looking West

Figure 3.1.7-19: KV-9 Proposed Condition – From Claribel Road Looking West – Alternatives 2A and 2B

Key View 10 – From Warnerville Road about a quarter mile east of Stoddard Road looking east

Proposed Project Features – Alternative 2B

Proposed changes under Alternative 2B seen in Key View 10 are the addition of the North County Corridor structures over Warnerville Road and associated earthen fill. The grazing land to the north and the orchard to the south are interrupted by the earthen fill for the structures; utilities would be modified within this view as a result of the project. Fences along the agricultural fields would be removed and replaced with Caltrans fencing alongside Warnerville Road and up the earthen fill. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternative 2B, as this is the only alternative resulting in visual impact.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-21, visual resource change would be low with implementation of Alternative 2B. Visual character change would be somewhat incompatible as the proposed North County Corridor becomes the new dominant feature in the view along with the existing roadway. The change from mostly rural to mostly developed environment will block many of the views of the agricultural fields and minimize views of the sky. Visual quality would be lower and rated moderate-low due to the North County Corridor replacing views of the built environment in the distance, which will result in moderate-low vividness. Intactness of the view would be moderate-low, as visual encroachment in the view is the new North County Corridor structures, which are more visible than the existing features. Unity would be rated as low as the new North County Corridor will further combine with the surrounding rural environment to create a more disjointed pattern.

Viewer Response

Key View 10 represents a typical view from a motorist along a local access road, which will pass under the proposed North County Corridor. Motorists would be exposed to the changes along Warnerville Road from the North County Corridor. The viewer exposure duration would be brief. Traffic levels along Warnerville Road are anticipated to continue to operate at a high level of service, though these viewers would notice change in this portion of the project site. The residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Warnerville Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternative 2B would be moderate-low as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-20: KV-10 Existing Condition - From Warnerville Road Looking East

Figure 3.1.7-21: KV-10 Proposed Condition – From Warnerville Road Looking East – Alternative 2B

Key View 11 – From Fogarty Road, about a quarter of a mile west of Emery Road, looking east

Proposed Project Features – Alternatives 1B and 2B

Proposed changes under Alternatives 1B and 2B seen in Key View 11 are the new widened Fogarty Road and the new North County Corridor running perpendicular under the overcrossing structure. Fogarty Road will be widened to add paved shoulders and a two-way left-turn lane. The orchard to the north and agricultural fields to the south will remain in the view, and utilities would exist within the distance of this view as a result of the project. Fences along the agricultural fields would be removed and replaced with Caltrans fencing along Fogarty Road. The fields in the distance would be obscured by the new widened Fogarty Road and earthen fill under the North County Corridor. The duration of these views would be low, due to the rate of speed that the new road would operate at and the extended period of exposure. The following analyses apply to Alternatives 1B and 2B; these two alternatives would result in the same visual impacts.

Change to Visual Quality/Character

Based on evaluation of the project photo-simulation shown in Figure 3.1.7-23, visual resource change would be moderate-low with the Build Alternatives. Visual character change would be moderately incompatible as the proposed roadway improvements widen the existing local access road convert the agricultural fields in the vicinity to a built environment. The existing orchards and agricultural fields are the dominant feature in the landscape, in which the new roadway and North County Corridor in the distance will replace and become the new dominant feature. Visual quality would be low with the Build Alternatives with a vividness rated as low due to the replacement of agricultural lands with pavement. Intactness of the view would be rated as moderate-low, as visual encroachment in the view would be the new lanes for the local road improvements, which are more visible than the existing features. The unity rating would move from moderate-low to low as the new North County Corridor will further combine with the surrounding environment to create a more disjointed pattern.

Viewer Response

Key View 11 represents a typical view from a motorist along a local access road, which will cross over the proposed North County Corridor. Motorists would be exposed to the changes along Fogarty Road from the North County Corridor and see vehicles traveling this portion of the North County Corridor each day. The viewer exposure duration is low, as the views will be brief and fleeting, though these viewers would notice change in this portion of the project site. The residents' viewer response would be moderate as there would be a change in the view, but it would fit in with the existing visual character and quality of the existing road. Most residents' views along Fogarty Road are obscured by existing structures and trees, so viewer response would be moderate for residents. Overall viewer response would be moderate.

Resulting Visual Impact

The resulting visual impact for Alternatives 2A and 2B would be moderate as the project would not substantially alter the visual character or quality of the project corridor.

Figure 3.1.7-22: KV-11 Existing Condition - From Fogarty Road Looking East

Figure 3.1.7-23: KV-11 Proposed Condition – From Fogarty Road Looking East – Alternatives 1B and 2B

Light and Glare: Main sources of light and glare in the area are motor vehicle headlights, streetlights, parking lot and exterior security lighting, and interior building lighting. Currently, light and glare exist throughout Visual Assessment Unit 1; little light and glare exist throughout Visual Assessment Unit 2. Signage and security lighting during the evening/nighttime hours is anticipated to be present throughout all visual assessment units.

The project would create a new highway with thousands of vehicles traveling along it and its associated local roads each day through a largely rural and undeveloped area. The existing local roads in the area combine with the rural setting to create a disjointed visual setting of both the natural and built environment. The visual impacts by alternative are nearly identical due to the similar nature of each proposed alignment. The following discussion shows that the four proposed alternatives result in a moderate to moderate-low visual impact.

Alternative 1A

The project will have a low to moderate-low resource change for Alternative 1A, as the North County Corridor will further combine with the local roads to create a disjointed visual setting. Due to the lack of sensitive highway neighbors, with most viewers being highway users, the viewer response to the project for Alternative 1A is typically moderate, except for Key View 5, which is high. Although visual impacts differ among viewer groups and visual assessment units, the overall visual impact of Alternative 1A is considered to be moderate to moderate-low as the project would not substantially alter the visual character or quality of the project corridor. Visual impacts requiring avoidance and minimization include the transition from agricultural landscape to transportation use including additional and wider pavement areas as well as implementation of large structures, exposed slopes associated with the large overhead structures, potential loss of vegetation and trees, and potential for additional lighting that could affect sensitive receptors.

Alternative 2A

The project will have a low to moderate-low resource change for Alternative 2A, as the North County Corridor will further combine with the local roads to create a disjointed visual setting. Due to the lack of sensitive highway neighbors, with most viewers being highway users, the viewer response to the project for Alternative 2A is typically moderate, except for Key View 5, which is high. Although visual impacts differ among viewer groups and visual assessment units, the overall visual impact of Alternative 2A is considered to be moderate to moderate-low as the project would not substantially alter the visual character or quality of the project corridor. Visual impacts requiring avoidance and minimization include the transition from agricultural landscape to transportation use including additional and wider pavement areas as well as implementation of large structures, exposed slopes associated with the large overhead structures, potential loss of vegetation and trees, and potential for additional lighting that could affect sensitive receptors.

Alternative 1B

The project will have a low to moderate-low resource change for Alternative 1B, as the North County Corridor will further combine with the local roads to create a disjointed visual setting. Due to the lack of sensitive highway neighbors, with most viewers being highway users, the viewer response to the project for Alternative 1B is typically moderate. Although visual impacts differ among viewer groups and visual assessment units, the overall visual impact of Alternative 1B is considered to be moderate to moderate-low as the project would not substantially alter the visual character or quality of the project corridor. Visual impacts requiring avoidance and

minimization include the transition from agricultural landscape to transportation use including additional and wider pavement areas as well as implementation of large structures, exposed slopes associated with the large overhead structures, potential loss of vegetation and trees, and potential for additional lighting which could affect sensitive receptors.

Alternative 2B

The project will have a low to moderate-low resource change for Alternative 2B, as the North County Corridor will further combine with the local roads to create a disjointed visual setting. Due to the lack of sensitive highway neighbors, with most viewers being highway users, the viewer response to the proposed project for Alternative 2B is typically moderate. Although visual impacts differ among viewer groups and visual assessment units, the overall visual impact of Alternative 2B is considered to be moderate to moderate-low as the project would not substantially alter the visual character or quality of the project corridor. Visual impacts requiring avoidance and minimization include the transition from agricultural landscape to transportation use including additional and wider pavement areas as well as implementation of large structures, exposed slopes associated with the large overhead structures, potential loss of vegetation and trees, and potential for additional lighting which could affect sensitive receptors.

Temporary Construction Impacts

Implementation of the project would expose residents and motorists to views of the project site. Construction-related vehicle access and staging of construction materials would occur within disturbed or developed areas along the length of the project site. The project area does not currently experience lighting typical of highways. Main sources of light and glare in the area include motor vehicle headlights, streetlights, parking lot and exterior security lighting, and interior building lighting. Currently, light and glare exist throughout Visual Assessment Unit 1; little light and glare exist throughout Visual Assessment Unit 2. Signage and security lighting during the evening/nighttime hours is expected throughout all visual assessment units.

Project construction would expose surfaces, construction debris, equipment, and truck traffic to nearby viewers. Construction vehicle access and staging of construction materials would be visible to motorists traveling along the project site as well as residents in the project vicinity. Project construction (Alternatives 1A, 2A, 1B, and 2B) would start in 2022 and be completed by 2026. These impacts would be short-term and would stop upon project completion.

Exposed surfaces including the slopes of the newly constructed North County Corridor overhead structures would be considered a visual impact if left exposed. These new exposed surfaces would negatively contribute to the visual quality of the area and, if left exposed, could erode away resulting in further degradation of the area’s visual quality. These exposed slopes would be revegetated as provided by Caltrans standards for erosion control to minimize impacts to the residents and motorists.

Visible short-term fugitive dust associated with construction would be reduced through implementation of dust suppression measures outlined in San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 8021, as well as implementation of Caltrans Standard Specifications for Construction, such as Section 17 and 18 (Dust Control). Adhering to Caltrans Standard Specifications for Construction would also minimize visual impacts through the use of opaque temporary construction fencing that would be placed around construction staging areas.

Lighting during construction could potentially affect sensitive receptors due to potentially excessive brightness and additional light pollution. The potential for temporary impacts due to construction lighting will be avoided and minimized with implementation of Avoidance/Minimization Measure 4 (Construction Lighting), which would require the review of construction lighting types, plans, and placement to minimize light and glare impacts to surrounding sensitive uses.

Caltrans and the Federal Highway Administration mandate that a qualitative/aesthetic approach should be taken to address visual quality loss in the project area. This approach fulfills the letter and the spirit of Federal Highway Administration requirements because it addresses the actual cumulative loss of visual quality due to a project. This approach also results in avoidance, minimization, and/or mitigation measures that can lessen or compensate for a loss in visual quality. The inclusion of aesthetic features in the project design, discussed in Section II, can help generate public acceptance of a project. This section describes additional avoidance, minimization, and/or mitigation measures to address specific visual impacts. These will be designed and implemented with concurrence of the District Landscape Architect.

No-Build Alternative

Under the No-Build Alternative, because no construction activities would occur, no impacts of any kind would occur to visual resources in the project area.

Avoidance, Minimization and/or Mitigation Measures

The following measures to avoid or minimize visual impacts will be incorporated into the project:

To address impacts associated with the transition from agricultural landscape to transportation use including additional and wider pavement areas as well as the implementation of large structures, the following measure will be implemented:

Measure VR-1: Where feasible, Build Alternatives will use the existing highway right-of-way corridor.

To address impacts associated with the potential loss of vegetation and trees, the following measure will be implemented:

Measure VR-2: Vegetation clearing will only occur within the delineated project boundaries in an effort to minimize the impacts. Trees located in areas along the edge of the construction zone will be trimmed whenever possible, and only those trees that lie within the active construction areas will be removed. Replacement of trees removed within the active construction area will be replaced at a rate and size determined by the District Landscape Architect.

To address impacts associated with the potential for additional lighting that could affect sensitive receptors, the following measure will be implemented:

Measure VR-3: Construction lighting types, plans, and placement shall comply with Caltrans and local standards to minimize light and glare impacts on surrounding sensitive uses.

3.1.8 Cultural Resources

Regulatory Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (for example, structures, bridges, railroads, water conveyance systems), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966 (NHPA), as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2014, a Section 106 Programmatic Agreement between the Advisory Council, Federal Highway Administration, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council’s regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration’s responsibilities under the Programmatic Agreement have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

The Archaeological Resources Protection Act (ARPA) applies when a project may involve archaeological resources located on federal or tribal land. The ARPA requires that a permit be obtained before excavation of an archaeological resource on such land can take place.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties. See Appendix C for specific information regarding Section 4(f).

Historical resources are considered under CEQA, as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources (CRHR). Public Resources Code Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places (NRHP) listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its right-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

A Historic Property Survey Report (HPSR), Historical Resources Evaluation Report (HRER), and Archaeological Survey Report (ASR) were approved by Caltrans in April and May 2015. The State Historic Preservation Officer provided formal concurrence in the eligibility recommendations presented in the Historic Property Survey Report and below on July 16, 2015 (see Appendix J). Due to sensitive and confidential information contained in the ASR, the ASR has not been included for public circulation.

The Area of Potential Effects for the project was established in consultation with Caltrans on May 14, 2015. The Area of Potential Effects was established as the area of direct and indirect effect and consists of approximately 15,215 acres. All direct permanent and temporary project effects as well as potential indirect effects will occur within the area identified within the boundary on the Area of Potential Effects map. The Direct Area of Potential Effects consists of approximately 4,042 acres.

The Area of Potential Effects lies in Stanislaus County, south of the cities of Riverbank and Oakdale and north of Modesto (Figure 3.1.8-1) and extends across rural, suburban and industrial areas. The Architectural Area of Potential Effects includes all parcels with built environment features that may be affected by the project; this Area of Potential Effects contains 740 parcels. The Architectural Area of Potential Effects also includes an Archaeological Area of Potential Effects, defined as the area that would be only directly and physically affected by the project.

Efforts to identify potential archaeological resources in the Direct Area of Potential Effects included a record search at the Central California Information Center, a review of historic topographical maps, efforts to coordinate with Native American representatives, and a pedestrian (walking) field survey. The Central California Information Center records search did not identify any previously recorded archaeological resources within the Direct Area of Potential Effects, but found a total of 40 archaeological surveys had been conducted within the current Area of Potential Effects. In addition, two more reports prepared and approved by Caltrans for other projects occurred directly within the Area of Potential Effects. As a result of this previous extensive survey coverage, only one prehistoric site has been identified: the resource is about one-half mile north of the northeastern limit of the Direct Area of Potential Effects. The remaining historic period resources appear to be built environment structures, many of which are still in use.

The project area was established and archival research and field investigations were undertaken in 2011 and 2014. The field investigations of architectural and archaeological resources within the proposed North County Corridor project Area of Potential Effects were conducted in 2011, 2012 and February, March, April, and May of 2014. The walking field survey for the Direct Area of Potential Effects was conducted between February and June 2014 and covered about 3,405 acres within and next to the Archaeological Area of Potential Effects. The archaeological field survey did not identify any archaeological sites. The architectural survey of 740 parcels identified 111 built environment resources requiring further evaluation to determine National Register of Historic Places/California Register of Historic Places eligibility. Of these, three were determined eligible (two as a result of this project and one previous determination), two are assumed eligible for the purposes of this project only, and 105 were determined not eligible (90 as a result of this project and 15 previous determinations). All other cultural resources were exempted under Attachment 4 of the Section 106 Programmatic Agreement. Caltrans consulted the State Historic Preservation Officer regarding eligibility determinations on May 20, 2015 and the State Historic Preservation Officer concurred on July 16, 2015 (see Appendix J). After consultation with the State Historic Preservation Officer, Caltrans assumed a total of two properties eligible, for the purposes of this project only.

Archaeological Sites

Buried Archaeological Site Potential Findings

The agricultural and community development has most likely destroyed most surface traces of archaeological deposits within the Archaeological Area of Potential Effects. While the surface expression of the prehistoric landscape has been heavily altered or removed by agricultural and commercial practices of the 20th and 21st centuries, such alteration does not suggest that prehistoric cultural resources have been completely removed from the area. Due to the high sediment accumulation within the Central Valley, prehistoric sites may be deeply buried and remain intact beneath the ground surface. Based on the geoarchaeological study by Rosenthal and Meyer (2004), about 81 percent of the Direct Area of Potential Effects is located within soils determined to have a very low to low sensitivity for buried archaeological deposits. The remaining 19 percent of the Area of Potential Effects is located in areas found to have moderate (about 26 acres), high (about 443 acres), or very high (about 308 acres) sensitivity for buried archaeological deposits.

Currently, there are six bridges proposed within areas with high or very high sensitivity for buried archaeological deposits. The McHenry crossing has been developed by commercial buildings on the western side and an orchard on the eastern side. The Coffee Road crossing contains orchards to the west and east. The Sierra Road crossing has agricultural fields on either side of Sierra Road and the Sierra Railroad. The Stearns crossing contains pasture land to the west and row crops to the east. The Sierra Railroad crossing would span orchards to the south and pasture lands to the north, while the Irrigation Ditch/Canal crossing would span orchards to the north and south.

As discussed above, no prehistoric or historic era archaeological sites were identified during survey efforts; however, as access to the entirety of the Direct Area of Potential Effects was not possible due to right-of-entry limitations, archaeological site identification and evaluation are not complete. As additional cultural resource identification and evaluation efforts are needed, and as the Direct Area of Potential Effects has areas of high buried site sensitivity, Caltrans has prepared a Programmatic Agreement to implement a phased approach to complete identification, evaluation of potential historic properties, effect finding determinations, and mitigation requirements (if applicable), after right-of-entry to the remaining parcels which have not yet been surveyed has been obtained. Given the high buried resource sensitivity in some areas of the Direct Area of Potential Effects, efforts were made to find all cultural resources prior construction; however, in anticipation of the unlikely event that a deposit is found during construction, the Programmatic Agreement also includes a stipulation for the preparation of a post-review discoveries plan to guide actions that will be taken if such a resource is found during construction. Caltrans submitted the Programmatic Agreement to the State Historic Preservation Officer for review and concurrence. The State Historic Preservation Officer approved of the stipulations within the Programmatic Agreement by being a signatory on the document on September 19, 2019 (see Appendix J).

Built Environment Resources

The Historic Resources Evaluation Report identified 111 properties that required evaluation to determine National Register of Historic Places/California Register of Historic Places eligibility. Of the 111 properties (Figure 3.1.8-1), 15 were previously evaluated for the National Register of Historic Places and were assessed as part of this project to determine whether the evaluations remained valid. A total of 92 properties required evaluation as part of this project. As a result, 90

properties were determined not eligible, two properties were determined eligible, and one property previously determined eligible was assessed and found to be still eligible. In addition, two properties were assumed eligible for the purposes of this project only, per VIII.C.4 of the Section 106 Programmatic Agreement.

On July 16, 2015, the State Historic Preservation Officer concurred with Caltrans' determinations of eligibility with the exception of one property, Modesto Irrigation District – Main Canal and Lateral No. 6, which Caltrans had determined to be not eligible (see Appendix J). The State Historic Preservation Officer requested additional information regarding the period of significance for the Modesto Irrigation District before agreeing or disagreeing on Caltrans' eligibility determination. After additional consultation with the State Historic Preservation Officer, Caltrans assumed eligibility for the property in question.

The three built environment resources determined to be eligible and the two built environment resources assumed eligible for the National Register of Historic Places and California Register of Historical Resources are considered historic properties for the purposes of NEPA and historical resources for the purposes of CEQA. The five resources are as follows:

- Sierra Railroad Mainline, south of Oakdale (Figure 3.1.8-1, Map Reference 13)
- Riverbank Army Ammunition Plant District, at 5300 Claus Road, Riverbank (Figure 3.1.8-1, Map Reference 59)
- Adobe shop building, at 3212 Claribel Road, Modesto (Figure 3.1.8-1, Map Reference 63)
- Hetch-Hetchy Aqueduct, Moccasin-Newark Transmission Tower Line and associated Warnerville Substation (Figure 3.1.8-1, Map Reference 6) (assumed eligible)
- Modesto Irrigation District - Main Canal and Lateral No. 6 (Figure 3.1.8-1, Map Reference 108 and 109) (assumed eligible)

Eligible Properties Descriptions

The *Sierra Railroad Mainline* (Map Reference 13) is eligible at the local level of significance under Criterion A for inclusion in the National Register of Historic Places and is currently listed in the California Register of Historical Resources as a contributor to the existing Sierra Railroad Historic District in Jamestown, California; this property is, therefore, a historical resource for the purposes of CEQA. As the first railroad constructed from the San Joaquin Valley to the Jamestown region, it is significant for its role in the economic development of Tuolumne County, specifically in the quartz and lumber industries. Its period of significance is from 1897 to 1932. The boundaries are the Sierra Northern Railway right-of-way. Contributing elements include its roadbed and ballast, rails, wood cross ties, base plates, spikes, and rail joiners. Noncontributing elements include modern crossing guards, concrete culverts, concrete road-crossing plates, and defect detector/equipment sheds.

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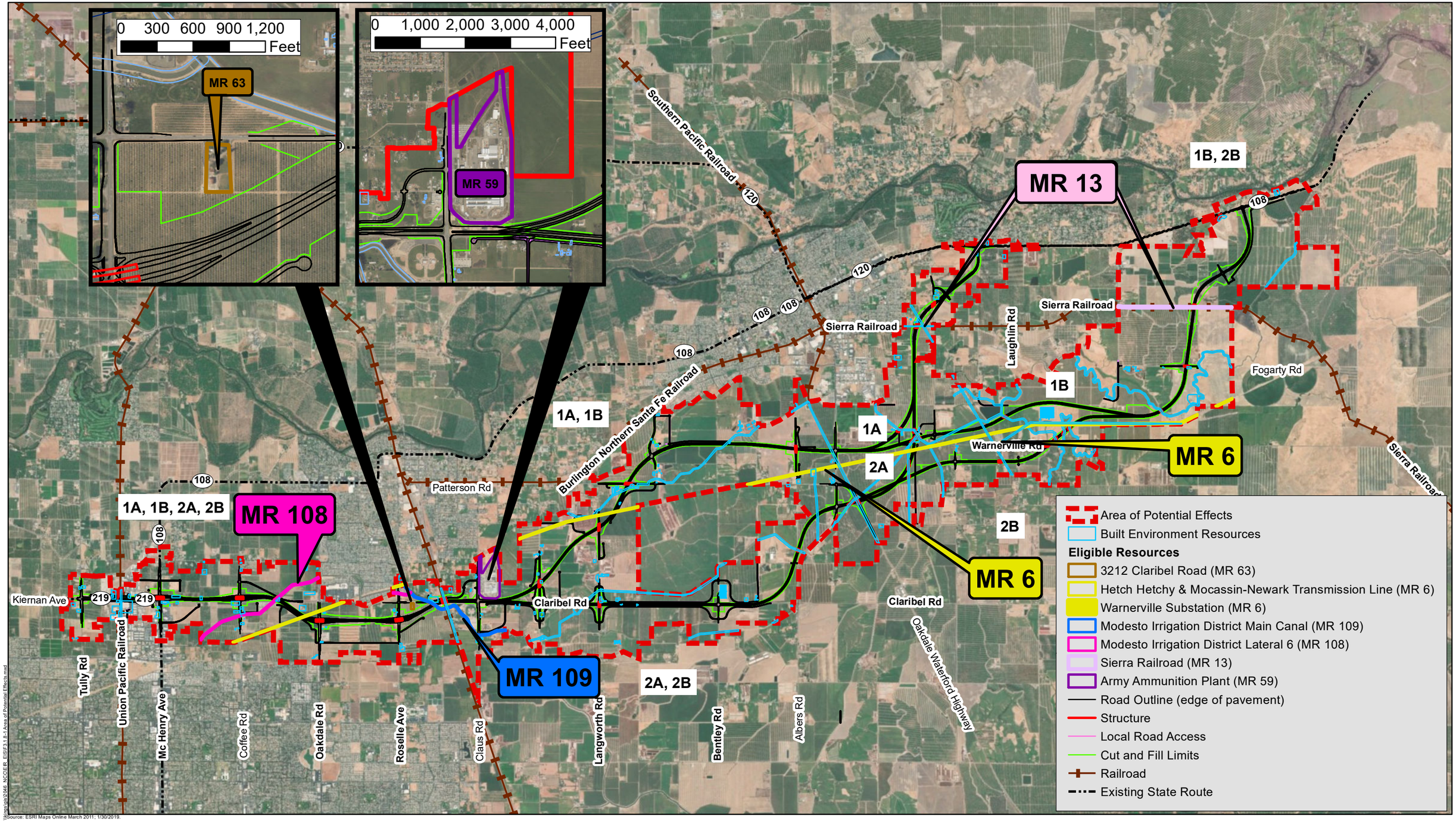

1 inch = 6,000 feet

0 1 2 3 4 5 Miles

FIGURE 3.1.8-1
Area of Potential Effects
EA: 10-0S8000, Project ID # 1000000263
North County Corridor New State Route 108 Project
Stanislaus County, California

The *Riverbank Army Ammunition Plant District* (RBAAP) (Map Reference 59), 5300 Claus Road, Riverbank, is eligible, at the local level of significance, under National Register of Historic Places Criterion A and California Register of Historical Resources Criterion 1 for its role as a war production facility during World War II, the Korean War, and the Vietnam War. It is also eligible at the local level of significance under National Register of Historic Places Criterion C and California Register of Historical Resources Criterion 3 as a prime example of the Industrial/Functionalism architectural style. The Riverbank Army Ammunition Plant District is a historical resource for the purposes of CEQA. Its period of significance for its association with wartime production is from 1942 to 1975. The boundaries encompass all contributing buildings and structures located within APN 062-031-005 boundaries and does not include the entire parcel. Contributing elements to the historic district include 158 buildings and structures built between 1942 and 1975, including a substation connecting to the Hetch-Hetchy Moccasin-Newark Transmission line and a railroad spur connecting to the BNSF. Non-contributing elements include 25 buildings, parking lot, and structures constructed after 1975.

The *adobe shop building at 3212 Claribel Road* (Map Reference 63) in Modesto is eligible for inclusion in the National Register of Historic Places at the local level of significance under Criterion C and the California Register of Historical Resources under Criterion 3 as a rare surviving example of a modern adobe ancillary building. It is one of only a handful of adobe buildings dating to the 1930s in California, and is the only known adobe building in Stanislaus County. Its period of significance is 1936. The building is also a historical resource for purposes of CEQA. The resource boundary of the adobe shop does not extend beyond the limits of the building itself. Character-defining features include the shop building's adobe brick structural system and plaster or smooth-finish stucco wall cladding, wood clad shed area, suspended wood plank sliding doors, and open, triangular gaps at the gable peak. Non-character-defining features include the two hitching posts. Noncontributing elements on the property include the 1940 residence, the c. 1940 detached garage, and the 1952 pre-fabricated Quonset hut.

The *Hetch-Hetchy Aqueduct, Moccasin-Newark Transmission Tower Line and Warnerville Substation* (Map Reference 6) are assumed eligible per VIII.C.4 of the Section 106 Programmatic Agreement for the purposes of this project; for inclusion in the National Register of Historic Places and California Register of Historical Resources as part of a larger potential historic district which includes the Hetch-Hetchy dam, aqueduct, electrical transmission towers and substations, and associated work camps. The potential historic district is assumed eligible under Criteria A/1 and C/3 at the state level of significance, for its association as instrumental in the growth of San Francisco, and for innovative engineering techniques. The Hetch-Hetchy aqueduct and transmission tower line were constructed to provide water to the City of San Francisco, and electrical power throughout the multiple counties it crossed from Tuolumne to San Francisco County.

The Hetch-Hetchy Aqueduct, Moccasin-Newark Transmission Tower Line and Warnerville Substation are historical resources for purposes of CEQA. The aqueduct is not visible, but runs directly below the transmission towers. Within the Area of Potential Effects, the Hetch-Hetchy Aqueduct and transmission line share a resource boundary that includes an approximately 200-foot right-of-way; the Warnerville Substation resource boundary is the APN limits. Character-defining features of the resources include the metal lattice transmission towers with cross arms, and the substation building.

The *Modesto Irrigation District,* including the *Modesto Main Canal* (Map Reference 109) and *Lateral No. 6* (Map Reference 108), is assumed eligible per Stipulation VIII.C.4 of the Section 106 Programmatic Agreement for the purposes of this project for inclusion in the National

Register of Historic Places and California Register of Historical Resources as part of a larger potential historic district: the Modesto Irrigation District canal system, which was one of the earliest canal systems in the county and the San Joaquin Valley. The potential historic district is assumed eligible under Criterion A/1 at the local level of significance for its contribution to agricultural development in Stanislaus County. The Modesto Irrigation District, including the Modesto Main Canal and Lateral No. 6, portions of which are in the Area of Potential Effects, is considered a historical resource under CEQA for the purposes of this project.

Environmental Consequences

Build Alternatives 1A, 2A, 1B and 2B

Currently, six bridges are proposed within areas with high or very high sensitivity for buried archaeological deposits. These areas include the proposed crossing of McHenry Avenue (Alternatives 1A, 1B, 2A, 2B); Coffee Road (Alternatives 1A, 1B, 2A, and 2B), Sierra Road (Alternatives 1A and 2A), Stearns Road (Alternatives 1A, 2A); Sierra Railroad (Alternatives 1B, 2B) and an irrigation ditch/canal about 50 miles north of Fogarty Road (Alternatives 1B, 2B). Anticipated depth of ground disturbance in these areas ranges from 20 feet to 70 feet below ground surface, depending on the need for piles.

As stated earlier, access to the entirety of the Direct Area of Potential Effects was not possible due to right-of-entry limitations; therefore, archaeological site identification and evaluation are not complete at this time. Similarly, identification and evaluation of cultural resources protected under Section 4(f) is not complete at this time; however, discussion of known impacted Section 4(f) resources is discussed in Appendix C of this document. Caltrans has prepared a Programmatic Agreement to implement a phased approach to complete identification, evaluation of potential historic properties, effect finding determinations, and mitigation requirements (if applicable), after right-of-entry to the remaining parcels which have not yet been surveyed has been obtained. Mitigation measures include data recovery or, when feasible, protecting the resource in place. Given the high buried resource sensitivity in some areas of the Direct Area of Potential Effects, efforts were made to find all cultural resources prior construction; however, in anticipation of the unlikely event that a deposit is found during construction, the Programmatic Agreement also includes a stipulation for the preparation of a post-review discoveries plan to guide actions that will be taken if such a resource is found during construction. Caltrans submitted the Programmatic Agreement to the State Historic Preservation Officer for review and concurrence. The State Historic Preservation Officer approved of the stipulations with the Programmatic Agreement by being a signatory on the document. The Section 106 process has been completed for this project as a Programmatic Agreement is in place.

In addition to the Programmatic Agreement, Caltrans has prepared and submitted a Finding of No Adverse Effects document to the State Historic Preservation Officer for review and comment. The document considered the effects of the undertaking on the historic properties discussed below. Although identification and evaluation efforts are not yet complete, it has been determined that there will be no adverse effect to the historic properties/historical resources identified within the Area of Potential Effects (APE), as summarized below. The State Historic Preservation Officer has concurred with the finding of no adverse effect determination on July 23, 2019.

Historic Properties/Historical Resources: Sierra Railroad Mainline

The project will not directly affect the Sierra Railroad, but would have a visual effect due to a necessary overcrossing. The resource will be crossed one time under each of the four alternatives. This overcrossing would have a minor indirect effect on the historic resource's setting but would not change the characteristics of the historic railroad that make it eligible for inclusion in the National Register of Historic Places/California Register of Historical Resources under Criterion A/1. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

As the resource is a historic property, it is protected under Section 4(f) of the Transportation Act of 1966 as a Section 4(f) resource, and the project's use of the resource must be evaluated. A summary of the project's impact upon this Section 4(f) resource is contained within Appendix C.

Riverbank Army Ammunition Plant District

The project will have no direct effects on the Riverbank Army Ammunition Plant District or any of its contributing resources and will have no adverse visual effects from the project. The project will be the same elevation as the current roadway in the vicinity of the district, and the road widening would have a minor indirect effect on the historic resource's setting and would not change the characteristics of the industrial plant that make it eligible for inclusion in the National Register of Historic Places/California Register of Historical Resources under Criteria A/1 and C/3. All four build alternatives will result in the same, minor indirect effect. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

As the resource is a historic property, it is protected as a Section 4(f) resource and the project's use of the resource must be evaluated. A summary of the project's impact upon this Section 4(f) resource is contained within Appendix C.

Adobe at 3212 Claribel Road

All four build alternatives will visually affect the resource through construction of an adjacent overcrossing and adjacent roadway. The project will have no direct effects to the adobe shop building, or any other structure, within the parcel at 3212 Claribel Road. While the introduction of an overcrossing and new roadway would have an indirect effect on the historic resource's setting, this indirect effect would not change the characteristics of the historic structure that make it eligible for inclusion in the National Register of Historic Places/California Register of Historical Resources under Criterion C/3. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

Based on the current alignment of the alternatives, there will be no use of the adobe building at 3212 Claribel Road, as there will be no impacts to the resource during construction of the project. In order to construct the proposed project, 6.3 acres of farmland would be required of the parcel associated with the farm complex at 3212 Claribel Road; however, there will be no encroachment into the historic property's recorded boundary nor will there be any impact to the adobe building. As the resource is a historic property, it is protected as a Section 4(f) resource and the project's use of the resource must be evaluated. A summary of the project's impact upon this Section 4(f) resource is contained within Appendix C

Hetch-Hetchy Aqueduct, Moccasin-Newark Transmission Tower Line and Warnerville Substation

The project will have minimal direct effects to the Hetch-Hetchy Aqueduct, Moccasin-Newark Transmission Tower Line, or the Warnerville Substation. The project would have a minor indirect effect on the historic resource's setting, but would not change the characteristics of the resource that make it eligible under California Register of Historical Resources/National Register of Historic Places 1/A and 3/C as part of a larger potential historic district. Alternatives 1A and 1B will each cross the resource 12 times (two major crossings and 10 minor crossings) and require the relocation of eight valve boxes. Alternative 2A will cross the resource six times (two major crossings and four minor crossings) and require relocation of three valve boxes. Alternative 2B will cross the facilities five times and require the relocation of three valve boxes. The North County Corridor crossings are at grade along Hetch-Hetchy facilities. North County Corridor crosses underneath the Transmission Tower Line (power transmission lines) with no disturbance to the overhead lines. North County Corridor crosses over the aqueduct (water transmission pipelines) with no disturbance to the pipelines. The pipelines are approximately 3 feet below grade. The pipelines would be protected in place with standard encasement below the pavement section. Valve boxes would be relocated outside of the Caltrans right-of-way and access would be provided. The valve boxes are not considered contributing elements to the resource and relocating the valve boxes will not affect the function of the aqueduct or affect its eligibility for inclusion in the NRHP/CRHR. There will be no impacts to the Warnerville Substation. The setting of the resource will change at each crossing location with the addition of roadway, but the change of setting would not affect the eligibility of the resource. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

Additionally, the crossing of the resource and the relocation of the valve boxes constitutes a use of the resource, as defined under Section 4(f) of the Department of Transportation Act of 1966. As the resource is a historic property, it is protected as a Section 4(f) resource and the project's use of the resource must be evaluated. A summary of the project's impact upon this Section 4(f) resource is contained within Appendix C. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

Modesto Irrigation District

The project will have a direct effect to the Modesto Irrigation District Modesto Main Canal and Lateral No. 6. The Modesto Main Canal resource will be crossed three times under each build alternative. These crossings will consist of two elevated crossings and one at-grade crossing and will not adversely affect the function of the canal or affect the eligibility for inclusion in the National Register of Historic Places/California Register of Historical Resources. The setting of the resource would change at the crossing location, but a change in setting would not affect the eligibility of the resource. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

Additionally, the project will have a direct effect on the Modesto Irrigation District Lateral No. 6. The Lateral No. 6 resource will be crossed four times under each build alternative, which also constitutes a use of the resource, as defined under Section 4(f) of the Department of Transportation Act of 1966. All four crossings will be at grade. The new crossings will not adversely affect the function of the canal or affect the eligibility for inclusion in the National Register of Historic Places/California Register of Historical Resources. The setting of the resource would change at the crossing location, but a change in setting would not affect the

eligibility of the resource. SHPO concurred that there will be no adverse effect to this historic property/historical resource.

As the resource is a historic property, it is protected as a Section 4(f) resource and the project's use of the resource must be evaluated. A summary of the project's impact upon this Section 4(f) resource is contained within Appendix C.

Temporary Construction Impacts

Implementation of the project would not cause temporary construction impacts on any known archaeological or historic resources.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy to halt work in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. Further provisions of PRC 5097.98 are to be followed as applicable.

No-Build Alternative

Under the No-Build Alternative, because no construction activities would occur, no effects of any kind would occur to historic properties in the project area.

Avoidance, Minimization and/or Mitigation Measures

It is anticipated that there will be no adverse effects to historic properties/historical resources and as such, no mitigation measures are proposed; however, as stated earlier, access to the entirety of the Direct Area of Potential Effects was not possible due to right-of-entry limitations; therefore, archaeological site identification and evaluation are not complete at this time. As additional cultural resource identification and evaluation efforts are needed, and as the Direct Area of Potential Effects has areas of moderate to high buried site sensitivity, Caltrans has prepared a Programmatic Agreement to implement a phased approach to complete identification, evaluation of potential historic properties, effect finding determinations, and mitigation requirements (if applicable), after right-of-entry to the remaining parcels that have not yet been surveyed has been obtained. Given the high buried resource sensitivity in some areas of the Direct Area of Potential Effects, the Programmatic Agreement includes a stipulation for the preparation of a post-review discoveries plan to be implemented during construction of the project. Caltrans submitted the Programmatic Agreement to the State Historic Preservation Officer for review and concurrence. The State Historic Preservation Officer approved of the stipulations within the Programmatic Agreement by being a signatory on the document on September 19, 2019 (see Appendix J).

The following measure is presented to minimize and avoid impacts to historic properties/historical resources:

Measure CR-1: The project shall comply with the Programmatic Agreement and Archaeological Resources Management Plan that will implement a phased approach to complete identification, evaluation of potential historic properties, effect finding determinations, and mitigation requirements (if applicable), after right-of-entry to the remaining parcels that have not yet been surveyed has been obtained.