

Yolo 80 Corridor Improvements Project



Community Impact Assessment DRAFT

Caltrans District 3, Solano, Yolo, Sacramento County, Interstate 80
04-SOL-80-40.7/R44.7; 03-YOL-80-0.00/R11.72; 03-YOL-50-0.00/3.12; 03-SAC-50-
0.00/L0.617; 03-SAC-8—M0.00/M1.36
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**Yolo 80 Corridor Improvements Project
COMMUNITY IMPACT ASSESSMENT**

DRAFT

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U.S. DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA

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Summary

This Community Impact Assessment (CIA) evaluates the potential land use, community, social, economic, and environmental justice impacts that could result from the California Department of Transportation's (Caltrans') Yolo 80 Corridor Improvements Project (Project), which would construct improvements consisting of managed lanes, pedestrian/bicycle facilities, and Intelligent Transportation System (ITS) elements along Interstate 80 (I-80) and United States Route 50 (US-50) from Kidwell Road near the eastern Solano County boundary (near Dixon), through Yolo County, and to West El Camino Avenue on I-80 and Interstate 5 (I-5) on US-50 in Sacramento County. The purpose of the Project is to ease congestion and improve overall throughput; improve freeway operation; support reliable transport of goods and services; improve modality; and provide expedited traveler information and monitoring systems. The Project is needed due to recurring congestion during the a.m. and p.m. peak periods, bottlenecks, inefficient movement of goods and services, limited multi-modal options in the corridor, and lack of real time traveler information and coordinated traffic communications systems. In addition to Alternative 1: No-Build, there are six Build Alternatives under consideration (Build Alternatives 2 through 7). Each Build Alternative also includes a "b" alternative, which would feature construction of an I-80 managed lane connector ramp. The CIA presents impact results for each numbered alternative and only distinguishes the "a" from "b" alternatives where the impacts would differ. For example, where the CIA refers to Alternative 2, those conclusions are applicable to both Alternatives 2a and 2b. This CIA assesses the potential community effects that could result from each Project alternative.

Land Use

The Project would add managed lanes on I-80/US-50 by widening the existing roadway through a combination of lane conversion, restriping, shoulder widening, and median reconstruction with a concrete barrier. All Build Alternatives would occur primarily within the existing Caltrans right-of-way (ROW). Therefore, the Project would not result in changes to land use. No parks, recreation facilities, or farmlands would be adversely affected by the Build Alternatives. There would be no relocations of homes or businesses. The No-Build Alternative would not change existing conditions; therefore, it would have no effect on existing land use.

Growth

Build Alternatives 2 through 5 would allow more vehicles and people through the corridor and improve flow conditions at existing bottlenecks compared to No-Build conditions. The "b" alternatives would further improve traffic operations compared to the "a" alternatives. By improving access and highway capacity, Build Alternatives 2 through 5 would help accommodate planned growth on a regional level and would respond to expected demand and conditions that have arisen from past development trends. These capacity enhancements are planned along an existing freeway corridor that passes through and connects urbanized areas in Solano, Yolo, and Sacramento Counties. Areas of new development would occur in areas already planned for growth by local agencies and the Project would not substantially alter regional development trends. Build Alternatives 6 and 7 would have no change or reduce

corridor performance compared to the no-Build Alternative, and therefore would not support planned growth or encourage growth in the region.

The Build Alternatives would not directly or indirectly increase development of residential land uses, encourage growth outside of existing growth boundaries, or alter existing access to residential and employment areas. Therefore, no adverse effects associated with growth would be anticipated with implementation of the Build Alternatives.

The No-Build Alternative would not change existing conditions; therefore, it would not affect growth in the region.

Community Character

The Build Alternatives would not adversely affect community character and cohesion. The existing character of the adjacent neighborhoods and quality of life would not adversely change under the Build Alternatives. Under all Build Alternatives, there would be temporary traffic delays and ramp closures on I-80/US-50 during construction that could result in temporary effects on access in and near the Project area. There would also be temporary construction-related impacts to air quality, noise, and visual conditions. Caltrans standard project features and best management practices would minimize temporary effects on area residents during construction and minimize long-term effects on community character. Avoidance and minimization measures will be implemented to minimize visual impacts on community character. Measures include: minimize glare through selection of materials and finishes, minimize high contrast rock slope protection, replace highway plantings and vegetation, reduce views of overhead signage, and minimize I-80 connector structure design profile. The Build Alternatives would result in visual impacts for highway neighbors, however, the resulting effect on overall community character would be modest. There would be no permanent adverse effects on population and housing, economic conditions, community facilities, community cohesion, and services.

Environmental Justice

The environmental justice analysis in this CIA examines whether minority and/or low-income populations would experience disproportionately high and adverse direct or indirect effects and whether the improvements would benefit low-income and minority communities equitably. If a tolled lane option is selected, Build Alternatives 3 through 5, the future-appointed tolling authority's role would be to realize travel benefits from lane pricing to all I-80/US 50 travelers, including environmental justice community members who may not realize the cost-benefit of time savings associated with a tolled lane. Strategies may include variable pricing, improving availability of toll tags/transponders, providing translation services, and investing excess toll revenue to distribute benefits to environmental justice communities. The analysis determined that the congestion relief and enhanced accessibility associated with the Project would benefit all I-80/US-50 travelers and environmental justice community members using bus and transit service entering and exiting the highway; nearby environmental justice communities would not be disproportionately adversely affected by construction and operation of the Project; and project impacts would not be predominantly borne by environmental justice communities.

Equity

The equity analysis in this CIA identifies underserved and disadvantaged communities in the study area, and considers historic impacts from transportation infrastructure development, existing environmental conditions and pollution burdens, health disparities that make communities more sensitive to pollution, and other socioeconomic factors that correlate with sensitivity to environmental impacts and traditionally underserved communities. Due to limitations in the methodologies for forecasting health impacts, air quality modeling results are used as a predictor for changes in health risk. The air quality report for this Project indicates the Build Alternatives would not substantially increase the pollution burden on neighboring communities in the long term. If a tolled lane option is selected, Build Alternatives 3 through 5, the future-appointed tolling authority would be required to implement a tolling program in alignment with the Caltrans Language Access Plan and Deputy Directive 91-R2, which would accommodate use of tolled lanes by Limited English Proficiency community members. The Build Alternatives would not substantially exacerbate conditions adversely affecting disadvantaged and underserved populations in the study area.

Utilities and Emergency Services

Under all Build Alternatives, there would be some utility relocations required and a fiber-optic cable line and associated fiber optic splice boxes would be installed within the roadbed. Temporary traffic delays and ramp closures on I-80/US-50 during construction of all Build Alternatives could result in temporary delays in emergency services. However, a Traffic Management Plan (TMP) would ensure emergency services are maintained during construction. Additionally, Build Alternatives 2 through 5 would ultimately improve circulation and reduce congestion along I-80/US-50 in the Project corridor, which could result in improved emergency service access and response times.

Economic Conditions

All Build Alternatives would not adversely change the regional economy and are expected to have a beneficial effect on the regional economy when completed, by improving access, travel time, and highway capacity.

Traffic and Transportation

Over the long term, Build Alternatives 2 through 5 would allow more vehicles and travelers through the corridor and improve circulation and flow conditions at existing bottlenecks compared to No-Build conditions. All Build Alternatives include improvements that would facilitate circulation between I-80/US 50 and the surrounding surface streets, benefiting access to neighboring communities and businesses. Due to the projected underutilization of the managed lanes under Build Alternatives 6 and 7, these alternatives would result in degraded I-80/US 50 corridor performance compared to the No-Build Alternative and would not meet the Project objectives. During construction, temporary traffic delays and ramp closures would affect access and circulation. The detailed TMP prepared for the selected alternative would include measures to maintain traffic connectivity and access during construction.

Pedestrian and Bicycle Facilities

Benefits of Build Alternatives 2 through 6 include the addition of a new Park-and-Ride facility at Enterprise Boulevard and an extension of the existing Yolo Causeway bicycle path at its connection with County Road 32A (CR-32A). Changes in traffic volumes at the Mace Boulevard interchange and changes in bicycle routing at the CR-32A bicycle path connection would affect pedestrians and bicyclists. Improvements are recommended at these locations to minimize potential conflicts between pedestrians/bicyclists and vehicles.

Public Involvement

Efforts to provide opportunities for public involvement have included meetings, online resources, mailings, and press releases regarding the proposed Project, as well as public outreach for related projects and regional transportation programs. Caltrans conducted targeted outreach meetings, placed phone calls, and sent letters to community stakeholders, with an emphasis placed on identifying organizations that serve minority or low-income communities. Outreach to minority and low-income communities included distribution of the Notice of Preparation (NOP) to neighborhood organizations in minority and low-income communities within the Community Study Area. Stakeholders, community members, and the general public, including minority and low-income communities, will be given the opportunity to review and comment on the environmental document.

Findings and Conclusions

All Build Alternatives would be consistent or partially consistent with applicable land-use plans and would not result in changes to land use. The Project would occur almost entirely within the existing Caltrans ROW and would not affect parks and recreational facilities, farmland/timberland, or community character and cohesion. There would be no relocations of homes or businesses. Build Alternatives that improve long-term traffic conditions would help accommodate planned growth on a regional level but would not result in adverse environmental effects associated with growth.

Table S-1. Summary of Major Potential Impacts from Alternatives

Potential Impact		Alternative 1: No-Build	Build Alternative 2a and 2b: HOV2+	Build Alternative 3a and 3b: HOT2+	Build Alternative 4a and 4b: HOT3+	Build Alternative 5a and 5b: Express Lanes	Build Alternative 6a and 6b: Transit-Only	Build Alternative 7a and 7b: Repurpose HOV2+
Land Use	Consistency with applicable County and City General Plans	No Impact / Not Consistent	All Build Alternatives would be consistent or partially consistent with the City of Sacramento, City of West Sacramento, City of Davis, Yolo County, and Solano County general plans, as shown in Table 2-2.					
	Consistency with SACOG 2020 MTP	No Impact / Not Consistent	All Build Alternatives would be consistent or partially consistent with the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy, as shown in Table 2-2.					
Coastal Zone		No Impact / Not Applicable						
Wild and Scenic Rivers		No Impact						
Parks and Recreation		No Impact	The Project would occur primarily within the existing Caltrans ROW and there would be no adverse effects on the activities, features, or attributes of any recreational facilities. Under all Build Alternatives, there would be temporary traffic delays and ramp closures on I-80/US-50 during construction that could result in temporary changes to access of recreation facilities. Build Alternatives 2 through 6 would result in indirect air quality and noise impacts due to proximity to construction activities and changes in long-term traffic volumes.					
Farmland/Timberland		No Impact						
Growth		No Impact	Build Alternatives 2 through 5 would help accommodate planned growth on a regional level but would not directly increase development of residential land uses, encourage growth outside of existing growth boundaries, or permanently alter existing access or known planned access to residential and employment areas. Therefore, no adverse direct or indirect effects associated with growth would be anticipated with the Build Alternatives.				Build Alternatives 6 and 7 would not improve I-80/US 50 corridor traffic performance compared to the No-Build Alternative, so they would not accommodate planned growth. No adverse effects associated with growth would be anticipated.	
Community Character and Cohesion		No Impact	Build Alternatives 2 through 6 would result in indirect air quality and noise impacts due to proximity to construction activities and changes in long-term traffic volumes. All Build Alternatives would result in visual impacts for highway neighbors, however, the resulting effect on overall community character would be modest.					

Potential Impact	Alternative 1: No-Build	Build Alternative 2a and 2b: HOV2+	Build Alternative 3a and 3b: HOT2+	Build Alternative 4a and 4b: HOT3+	Build Alternative 5a and 5b: Express Lanes	Build Alternative 6a and 6b: Transit-Only	Build Alternative 7a and 7b: Repurpose HOV2+
Utilities/Emergency Services	No Impact	All Build Alternatives would require verification and involvement with utility companies. Temporary traffic delays and ramp closures on I-80/US-50 during construction of all Build Alternatives could result in temporary delays in emergency services. A transportation management plan would be developed for the Project to ensure emergency services are maintained during construction. Build Alternatives 2 through 5 would ultimately improve circulation and reduce congestion along I-80/US-50 in the Project corridor, which could result in improved emergency service access and response times.					

Potential Impact		Alternative 1: No-Build	Build Alternative 2a and 2b: HOV2+	Build Alternative 3a and 3b: HOT2+	Build Alternative 4a and 4b: HOT3+	Build Alternative 5a and 5b: Express Lanes	Build Alternative 6a and 6b: Transit-Only	Build Alternative 7a and 7b: Repurpose HOV2+
Relocations/ Displacements	Housing	No Impact						
	Business	No Impact						
	Utility	No Impact						
Environmental Justice		No Impact	<p>The congestion relief and enhanced accessibility associated with Build Alternatives 2 through 5 would benefit all I-80/US-50 travelers. The Build Alternatives would not cause disproportionately high and adverse effects on environmental justice communities, and project impacts would not be predominantly borne by environmental justice communities. Use of tolled lanes constitutes a higher financial burden on low-income travelers who choose to use them than on higher-income individuals.</p>				A transit lane would be added in each direction, which would benefit transit users, including environmental justice communities using public transit	Same as Build Alternatives 2 through 5. However, Alternative 7 would not substantially improve traffic and circulation compared to the No-Build Alternative so has limited benefits to all communities.
Equity		No Impact	<p>All Build Alternatives would not substantially affect community character or quality of life in underserved communities in the study area. The Build Alternatives would not exacerbate air pollutant conditions and associated health disparities or affect socioeconomic conditions.</p> <p>The toll-related signage and the process for obtaining toll tag/transponders under Build Alternatives 3 through 5 may present challenges to linguistically isolated households.</p>				A transit lane would be added in each direction, which would benefit underserved communities using public transit.	Same as Build Alternative 2.

Potential Impact	Alternative 1: No-Build	Build Alternative 2a and 2b: HOV2+	Build Alternative 3a and 3b: HOT2+	Build Alternative 4a and 4b: HOT3+	Build Alternative 5a and 5b: Express Lanes	Build Alternative 6a and 6b: Transit-Only	Build Alternative 7a and 7b: Repurpose HOV2+
Traffic and Transportation/ Pedestrian and Bicycle Facilities	No Impact	Build Alternatives 2 through 5 would allow more vehicles and travelers through the corridor and improve circulation and flow conditions at existing bottlenecks compared to No-Build conditions. This is true for the “a” alternatives and the “b” alternatives. During construction, temporary traffic delays and ramp closures would affect access and circulation. Temporary traffic delays and ramp closures during construction under the “a” alternatives would be shorter duration than the “b” alternatives. There would be no permanent change to access. Build Alternatives 2 through 6 would benefit cyclists by extending the Yolo Causeway bicycle path connection to County Road 32A (CR-32A). Design improvements are recommended at CR-32A and Mace Boulevard to minimize potential conflicts between pedestrians/bicyclists and vehicles. The Build Alternatives would replace the existing bicycle pathway pavement in several locations that would require pedestrians and bicycles to be rerouted during construction, but access would remain available and will be outlined in the TMP.				Build Alternatives 6 and 7 would not improve corridor performance (movement of vehicles and persons) compared to No-Build conditions. Alternative 6 would have the same bicycle and pedestrian improvements as described for Alternatives 2 through 5. Alternative 7 would not modify existing bicycle and pedestrian facilities.	
Cumulative Impacts	No Impact	The Build Alternatives would not contribute to cumulative adverse effects on land use, farmlands, parks and recreation, and community character and cohesion. The Build Alternatives would not contribute to regional declines in farmlands and open space.					

Notes: HOV = high-occupancy vehicle, HOT = high-occupancy toll, MTP = Metropolitan Transportation Plan

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Appendix A. Public Outreach Materials

Abbreviations and Acronyms

AB	Assembly Bill
ADA	Americans with Disabilities Act
BMPs	best management practices
Caltrans	California Department of Transportation
CCTV	Closed-circuit television
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CMS	changeable message sign
CR-32A	County Road 32A
dBA	A-weighted decibels
EO	Executive Order
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GDP	Gross domestic product
GHG	greenhouse gas
HOT	high-occupancy toll
HOV	high-occupancy vehicle
I-5	Interstate 5
I-80	Interstate 80
ITS	Intelligent Transportation System
LEP	Limited English Proficiency
LOS	Level of Service
LRDP	UC Davis Long-range Development Plan
MLSP	Managed Lanes System Plan
MSAT	Mobile Source Air Toxics
MTC	Metropolitan Transportation Commission
MTP/SCS	SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
OEHHA	California Office of Environmental Health Hazards Assessment
OES	Yolo County Office of Emergency Services
OPR	Office of Planning and Research
PG&E	Pacific Gas & Electric
PM	particulate matter
Project	Yolo 80 Corridor Improvements Project
ROW	Right of Way
SACOG	Sacramento Area Council of Governments
SacRT	Sacramento Regional Transit District
SB	Senate Bill
SER	Standard Environmental Reference
SMAQMD	Sacramento Metropolitan Air Quality Management District
SOV	single occupancy vehicle
SR	State Route
TAC	Toxic Air Contaminant

TCE	Temporary construction easement
TMP	Transportation Management Plan
TMS	Transportation Management System
UC Davis	University of California, Davis
US-50	United States Route 50
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
VHD	vehicle hours of delay
VMT	vehicle miles traveled

Chapter 1 Introduction

The California Department of Transportation (Caltrans), in collaboration with stakeholders, proposes to construct improvements consisting of managed lanes, pedestrian/bicycle facilities, and Intelligent Transportation System (ITS) elements along Interstate 80 (I-80) and United States Route 50 (US-50) from Kidwell Road near the eastern Solano County boundary (near Dixon), through Yolo County, and to West El Camino Avenue on I-80 and Interstate 5 (I-5) on US-50 in Sacramento County (Figure 1-1).

The Yolo 80 Corridor Improvements Project (Project) would help relieve current traffic congestion, which would result in improved traffic flow, mobility, travel time, and reliability. In addition, the Project would improve transit access and reduce vehicle emissions and travel costs. The Project would achieve these goals by actively managing recurrent and non-recurrent congestion.

Caltrans, as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA) for the Project. Caltrans is also the lead agency under the California Environmental Quality Act (CEQA). The information in this document has been prepared as a “blended” assessment to comply with CEQA, NEPA, and other substantive environmental laws applicable to the subjects addressed in this document.

1.1 Purpose of the Community Impact Assessment (CIA)

The purpose of a community impact assessment (CIA) is to consider how a project would affect the people, businesses, neighborhoods, communities, and social and economic characteristics of an area. It considers the potential direct and indirect effects caused by construction and operation of the proposed Project. This CIA serves as one of the background technical reports that will be used to prepare relevant sections of the environmental document for the proposed project.

A CIA is “a process to evaluate the effects of a transportation action on a community and its quality of life” (Federal Highway Administration 1996). This CIA considers all items of importance to people, such as mobility, safety, employment effects, relocation, isolation, and other community issues. It describes the relevant existing conditions within an area; potential impacts of the project on the community and its neighborhoods; and potential measures to best avoid, minimize, or compensate for any adverse community impacts of a proposed project.

This document has been prepared to provide the FHWA, Caltrans, Solano County, Yolo County, Sacramento County, and the Cities of Davis and West Sacramento, and the public with information about the socioeconomic and community-level effects of construction and operation of the Project.

This report identifies impacts associated with land use changes, social effects, property acquisitions, and economic changes; it also addresses environmental justice issues. The report was prepared according to the Community Impact Assessment Volume 4, Caltrans Standard Environmental Reference, Environmental Handbook 4 (California Department of Transportation 2020), which contains Caltrans guidelines for preparing socioeconomic assessments and FHWA guidelines.

This CIA addresses the following topics:

- Land Use
- Consistency with Plans
- Parks and Recreation
- Farmlands
- Growth
- Community Character and Cohesion
- Population and Housing
- Economic Conditions
- Community Facilities and Services
- Environmental Justice
- Equity
- Access and Circulation
- Parking
- Public Transportation
- Pedestrian and Bicycle Facilities
- Public Involvement

The following topics are not addressed in this CIA:

- Coastal Zone. The Project is not within the California Coastal Zone.
- Wild and Scenic Rivers. The Project does not cross a Wild and Scenic River.
- Relocations and Real Property Acquisition. The Build Alternatives would be constructed primarily within existing Caltrans right-of-way. No property acquisitions are needed, and no residents or businesses would be relocated.
- Fiscal Conditions. The Build Alternatives would not displace residents or businesses, so no changes to local taxes would occur. Refer to Section 4.2 Economic Conditions for an analysis of effects on regional economy, employment, business activity, and consequences of toll projects.

1.2 Regulatory Setting

The following existing laws, regulations, and executive orders either directly or indirectly require evaluation of the potential environmental consequences of proposed project activities. This also includes a requirement to examine consequences that may occur in areas beyond the immediate influence of a proposed action and at some time in the future:

- National Environmental Policy Act (NEPA)
- California Environmental Quality Act (CEQA)
- Title VI of the Civil Rights Act of 1964
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
- Executive Order (EO) 12898 - Environmental Justice (EJ)
- EO 14096 – Revitalizing Our Nation’s Commitment to Environmental Justice for All

- The Americans with Disabilities Act (ADA) of 1990
- 23 Code of Federal Regulations (CFR) 652, Pedestrian and Bicycle Accommodations
- Fixing America's Surface Transportation (FAST) Act

1.2.1 National Environmental Policy Act (NEPA)

NEPA requires all federal agencies to assess the environmental effects of a project and disclose such effects to the public. The President's Council on Environmental Quality was established to oversee NEPA for all federal agencies. In accordance with NEPA, this CIA has been prepared to document the effects of the Project on the environment.

1.2.2 California Environmental Quality Act (CEQA)

CEQA requires California public agencies to identify the significant environmental impacts of their actions, and either avoid or mitigate such impacts, where feasible. In accordance with the CEQA guidelines, this CIA has been prepared to document the potential impacts of the Project and identify measures to avoid, minimize, and mitigate identified impacts where feasible.

1.2.3 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal funding.

1.2.4 Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA) of 1970

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA) provides important protections and assistance for people affected by federally funded projects. The URA was passed by Congress to ensure that people whose real property is acquired, or who move as a result of projects receiving federal funds, will be treated fairly and equitably, and will receive assistance in moving from the property they occupy. Direct property acquisition under a project would require implementation of this Act to provide for relocation assistance services to affected homeowners, renters, and tenant businesses. In addition, the URA requires that residential and commercial property owners be paid the fair market value of any property acquired because of the project.

1.2.5 Executive Order (EO) No. 12898: Federal Actions to Address Environmental Justice¹ in Minority Populations and Low-Income Populations

Executive Order No. 12898 directs federal agencies to “promote nondiscrimination in federal programs substantially affecting human health and the environment and provide minority and low-income communities access to public information on, and an opportunity for public

participation in, matters related to human health or the environment.” The order directs agencies to use existing law to ensure the following when they act:

- They do not discriminate based on race, color, or national origin.
- They ensure public participation.
- They identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations.

1.2.6 Executive Order (EO) No. 14096: Revitalizing Our Nation’s Commitment to Environmental Justice for All

Executive Order 14096 builds on EO 12898 and directs federal agencies to work toward environmental justice for all and improve the lives of communities hit hardest by toxic pollution and climate change. The EO acknowledges a history of persistent environmental injustice through toxic pollution, underinvestment in infrastructure and critical services, and other disproportionate environmental harms often due to a legacy of racial discrimination. The order directs agencies to do the following:

- Identify and address gaps in science, data, and research related to environmental justice, including advancing the analysis of cumulative impacts.
- Expand interagency coordination and launch a new Office of Environmental Justice within the Council on Environmental Quality.
- Increase accountability and transparency in federal environmental justice policy by making information on environmental and health concerns more publicly accessible to communities.
- Honor and build on the foundation of ongoing environmental justice work.

1.2.7 Americans with Disabilities Act (ADA) of 1990

The ADA of 1990 extends the protection of the 1964 Civil Rights Act to the disabled, prohibiting discrimination in public accommodations and transportation and other services. The ADA, in part, stipulates the importance of engaging the disabled community in the development of access at sidewalks, ramps, and street crossings for roadway improvement projects.

1.2.8 23 Code of Federal Regulations (CFR) 652 Pedestrian and Bicycle Accommodations for Federal-Aid Highway Projects

The FHWA adopted policies and procedures relating to the provision of pedestrian and bicycle accommodations on federal-aid projects in 1984, codified in 23 CFR Section 652. The policy requires the consideration of safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects.

1.2.9 Fixing America's Surface Transportation (FAST) Act

The FAST Act was signed into law on December 4, 2015, as the new funding and programs authorization for surface transportation. On October 1, 2020, a continuing resolution was authorized to approve a 1-year extension of the FAST Act through Fiscal Year 2021. The FAST Act builds on the previous legislation for transportation programs and policies, the Moving Ahead for Progress in the 21st Century Act of 2012 and the Intermodal Surface Transportation Efficiency Act of 1991. The FAST Act requires that social and economic effects be determined, evaluated, and eliminated or minimized as part of the environmental documentation of proposed projects receiving federal funding. Social and economic impacts include destruction or disruption of man-made and natural resources, aesthetic values, community cohesion, and the availability of public facilities and services; adverse employment effects and tax and property values losses; injurious displacement of people, businesses, and farms; and disruption of desirable community and regional growth.

1.3 Assessment Process and Methods Used

The analysis of socioeconomic effects in this report involved gathering data from a variety of primary and secondary information sources. Primary data sources included field visits, aerial photo interpretation, and stakeholder outreach efforts. Secondary data sources included various state and federal guidance documents, regional and local published data, and websites. The Standard Environmental Reference (SER), the Caltrans Environmental Handbook, Volume 4 - Community Impact Assessment (Caltrans 2022a) is the primary guide for the structure and direction of the CIA. Additional guidance related to the approach of the study is provided by the January 2023 Annotated CIA template from the SER website and the National Cooperative Highway Research Program's (NCHRP's) *Assessing the Environmental Justice Effects of Toll Implementation or Rate Changes* (NCHRP 2018). This report also relies on technical studies prepared for the Project, which included travel and traffic analyses completed by Fehr & Peers (2021 a-d, 2023), a noise study report prepared by Illingworth & Rodkin, Inc. (2022), an air quality report prepared by Caltrans (2023b), Section 4(f) memorandum prepared by Caltrans (2023a), and a visual impact assessment prepared by Stantec (2022).

The approach for the CIA includes an inventory of existing conditions and an evaluation of potential effects of each alternative. The CIA assesses the potential effects of the Project alternatives on land uses and adjacent communities. The CIA evaluates land use patterns, development trends, and consistency of the alternatives with applicable adopted land use and transportation goals and policies. The CIA also evaluates demographic information, such as population, ethnicity, and housing; employment and economic conditions; fiscal conditions; community facilities and public services; environmental justice, and equity.

Sources of information for the land use characterization include applicable general and specific plans, the Sacramento Area Council of Governments (SACOG) *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) (2019), the Farmland Mapping and Monitoring Program (FMMP), aerial photos, zoning maps, and other local and regional planning and environmental impact documents.

Community characteristics include a description of population demographics, housing characteristics, and economic conditions of the Community Study Area and the Regional Study Area. Data sources include U.S. Census Bureau data and local and regional planning documents, including the MTP/SCS. Most of the U.S. Census Bureau data presented in this CIA is taken from the 2019 American Community Survey data tables. In contrast to the decennial census, the American Community Survey collects data annually from a small sample of the US population to estimate detailed economic and social information for the country's population. At the time of this writing, 2020 American Community Survey data has limited availability. As noted on the U.S. Census Bureau website (<https://www.census.gov/programs-surveys/acs/data/experimental-data.html>), *"Due to the impact of the COVID-19 pandemic, the Census Bureau changed the 2020 American Community Survey release schedule. Instead of providing the standard 1-year data products, the Census Bureau released experimental estimates from the 1-year data. This includes a limited number of data tables for the nation, states, and the District of Columbia."* Also, data from the SACOG MTP/SCS, which is used for the Regional Study Area, and from the CalEnviroScreen dataset, which is used in the Equity section, relies on the 2019 ACS data. Therefore, the 2019 American Community Survey data was used for the community study area to facilitate an "apples to apples" comparison with regional statistics.

Public outreach has been used to help characterize neighboring communities, gather data on how the I-80 corridor is used, solicit input on the proposed alternatives. Public involvement efforts have included meetings, online resources, mailings, and press releases regarding the proposed Project. Caltrans has conducted targeted outreach meetings, placed phone calls, and sent letters to community stakeholders, with an emphasis placed on identifying organizations that serve minority or low-income communities. Several outreach events were held, all of which were virtual due to the COVID-19 pandemic. This included an online public scoping meeting.

This CIA assesses the potential community effects that could result from the six Build Alternatives and the No-Build Alternative. Each Build Alternative also includes a "b" alternative, which would feature construction of an I-80 managed lane connector ramp. The CIA presents impact results for each numbered alternative and only distinguishes the "a" from "b" alternatives where the impacts would differ. For example, where the CIA refers to Alternative 2, those conclusions are applicable to both Alternatives 2a and 2b.

1.4 Purpose and Need

1.4.1 Purpose

The purpose of the proposed project is to:

- Ease congestion and improve overall person throughput²

² Throughput is the number of people moving efficiently through a region.

- Improve freeway operation on the mainline, ramps, and at system interchanges.
- Support reliable transport of goods and services throughout the region.
- Improve modality³ and travel time reliability.
- Provide expedited traveler information and monitoring systems.

1.4.2 Need

The proposed project is needed for the following reasons:

- Recurring congestion during the a.m. and p.m. peak periods exceeds current design capacity limiting person throughput.
- Operational inefficiencies lead to the formation of bottlenecks due to short weaving and merging areas as well as lane drops.
- Inefficient movement of goods and services impedes regional and interstate economic sustainability.
- The corridor users rely heavily on single occupancy vehicles, with limited multi-modal options such as transit, carpool, bicycle, and pedestrian facilities resulting in unreliable travel times.
- Lack of real time traveler information and coordinated traffic communication systems impedes timely response to roadway incidents resulting in secondary collisions and increased non-recurring congestion.

1.5 Proposed Project

This section describes the Project and the Project alternatives developed to meet the purpose and need of the Project, while avoiding or minimizing environmental impacts. Caltrans proposes to make improvements on I-80 and US-50 from Kidwell Road near the eastern Solano County boundary (near Dixon), through Yolo County, and to West El Camino Avenue on I-80 and on US-50 to I-5 in Sacramento County.⁴ The project would add managed lanes on I-80 and US-50 by widening the existing roadway through a combination of lane conversion, restriping, shoulder widening, and median reconstruction with a concrete barrier. Drainage modifications would be required due to median reconstruction in the locations to which sheet flow currently drains. Existing Intelligent Transportation Systems (ITS) elements and infrastructure would be modified

³ Modality is the variety in modes of transportation. This includes access and multiple options for the movement of people and goods. Examples include access to transit, carpool, bicycle, and pedestrian facilities.

⁴ I-80 corridor between PM 40.7 and PM 44.7 in Solano County, between PM 0.00 and PM 11.72 in Yolo County and between PM 0.00 and PM 1.36 in Sacramento County; and US-50 between PM 0.00 and PM 3.12 in Yolo County and between PM 0.00 and PM 0.617 in Sacramento County.

and new ITS elements would be added, including ramp meters, fiber-optic conduit and cables, and overhead signs. Pedestrian/bicycle facilities would also be constructed.

1.5.1 Project Alternatives

This section describes alternatives that were developed to meet the purpose and need of the project. The No-Build Alternative (Alternative 1) is described below. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternatives 2a, 3a, 4a, 5a, and 6a propose the same geometric footprint, but would incorporate different managed lane types. Build Alternatives 2b, 3b, 4b, 5b, and 6b propose the same geometric footprint and include an I-80 managed lane direct connector, but would incorporate different managed lane types. Build Alternatives 7a and 7b would not construct new lanes but would repurpose an existing lane instead; however, Build Alternative 7b would include the I-80 managed lane direct connector. The Build Alternatives are as follows:

- Build Alternative 2a: Add a high-occupancy vehicle lane in each direction for use by vehicles with two or more riders (HOV2+).
- Build Alternative 2b: Add a high-occupancy vehicle lane in each direction for use by vehicles with two or more riders (HOV2+) and build an I-80 managed lane direct connector.
- Build Alternative 3a: Add a high-occupancy toll lane in each direction for free use by vehicles with two or more riders (HOT2+). Single-occupied vehicles would pay a fee for the lane usage. Management of HOT lanes would be the responsibility of a Caltrans-appointed tolling authority, consistent with Caltrans’ Policy for Managed Lane Facilities (Deputy Directive DD-43-R1, 2015). Caltrans Deputy Directive DD-43-R1 requires that each district that operates managed lanes prepare a Managed Lanes System Plan (MLSP). The MLSP contains a list of each managed lane facility that is currently in operation or planned for operation within the next twenty years. As tolling may be used as an operational strategy on managed lanes, DD-43-R1 provides provisions on how toll revenues may be used. Excess toll revenues are to be used for projects or programs that improve or preserve safety, operations, or travel reliability for any transportation mode or provide new or enhanced travel options in the corridor in which the tolls were collected (Caltrans, 2015). The MLSP would be developed during the final design phase if a tolled-lane option (Build Alternative 3, 4, or 5) is selected as the preferred alternative.
- Build Alternative 3b: Add a high-occupancy toll lane in each direction for free use by vehicles with two or more riders (HOT2+) and build an I-80 managed lane direct connector. Single-occupied vehicles would pay a fee for the lane usage.
- Build Alternative 4a: Add a high-occupancy toll lane in each direction for free use by vehicles with three or more riders (HOT3+). Vehicles with less than three riders would pay a fee for lane usage.

- Build Alternative 4b: Add a high-occupancy toll lane in each direction for free use by vehicles with three or more riders (HOT3+) and build an I-80 managed lane direct connector. Vehicles with less than three riders would pay a fee for lane usage.
- Build Alternative 5a: Add an express lane in each direction (i.e., everyone would pay a fee to use the lane, regardless of the number of riders).
- Build Alternative 5b: Add an express lane in each direction (i.e., everyone would pay a fee to use the lane, regardless of the number of riders) and build an I-80 managed lane direct connector.
- Build Alternative 6a: Add a transit-only lane in each direction.
- Build Alternative 6b: Add a transit-only lane in each direction and build an I-80 managed lane direct connector.
- Build Alternative 7a: Repurpose the current number one general-purpose lane for use by vehicles with two or more riders (HOV2+); no new lanes would be constructed.
- Build Alternative 7b: Repurpose the current number one general-purpose lane for use by vehicles with two or more riders (HOV2+); no new lanes would be constructed. Build an I-80 managed lane direct connector.

This project contains a number of standardized project features, which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project.

1.5.1.1 Project Segments

The Build Alternatives consist of the following three geographic segments (Figure 1-1).

Segment 1

Segment 1 stretches from Kidwell Road in eastern Solano County through the City of Davis to the eastern end of the Yolo Causeway east of Enterprise Boulevard in the City of West Sacramento. Segment 1 consists of three sub-segments:

- *Segment 1a* is from Kidwell Road to Solano County/Yolo County Line.
- *Segment 1b* is from the Solano/Yolo County Line to the west end of the Yolo Causeway.
- *Segment 1c* is from the start of the Yolo Causeway to east of Enterprise Boulevard.

Segment 2

Segment 2 picks up just east of Enterprise Boulevard and continues north on I-80 to West El Camino Avenue.

Segment 3

Segment 3 starts at the I-80/US-50 Separation and continues east along US-50 to I-5 near downtown Sacramento. Segment 3 consists of two sub-segments:

- *Segment 3a* is from the I-80/US-50 Separation to Jefferson Boulevard Undercrossing
- *Segment 3b* is from the Jefferson Boulevard Undercrossing to just east I-5.

1.5.1.2 Common Design Features of the Build Alternatives

Common design features and standardized measures are shared among the Build Alternatives.

Managed Lanes

Managed lanes are highway facilities, or a set of lanes, where operational strategies are implemented to manage overall traffic congestion or in response to changing conditions (FHWA 2008). Managed lanes can include pricing, vehicle eligibility, or access control concepts. The lanes have flexibility to be used by different types of vehicles, depending on the need and can be actively managed to accommodate peak travel demands. Managed lanes would be designated using a striping pattern to distinguish between the mixed-flow lanes.

Intelligent Transportation System/Transportation Management Systems (ITS/TMS)

Each of the Build Alternatives would include placement of ramp meters and other ITS/TMS such as closed-circuit television (CCTV) and changeable message signs. Several maintenance pullouts are proposed adjacent to I-80 on-ramps to accommodate an electrical cabinet for proposed ramp meters or other ITS/TMS infrastructure.

Proposed ITS elements would be installed on a new pole foundation; some existing ITS infrastructure in these locations would be abandoned or replaced. Accordingly, it is assumed that each ITS pole foundation would have up to a 6-foot radius permanent footprint with up to 10-foot radius temporary area for construction.

Structure Modifications

As summarized in Table 1-1, Build Alternatives would add improvements to existing structures to accommodate proposed Managed Lanes.

Table 1-1. Structure Modifications

Structure Name	Structure Number	Route	Post Mile	Alternative	Structure Work
South Fork Putah Creek	23-0054 R	Sol 80	42.36	All Build Alternatives	Place fiber optic conduit
Old Davis Rd Undercrossing	23-0155R	Sol 80	R43.5	All Build Alternatives	Place fiber optic conduit

Structure Name	Structure Number	Route	Post Mile	Alternative	Structure Work
South Davis Overhead	23-0156R	Sol 80	R43.93	All Build Alternatives	Place fiber optic conduit
Putah Creek Pedestrian Undercrossing	22-0194	Yol 80	0.01	All Build Alternatives	Place fiber optic conduit
Richard Boulevard Overcrossing RW NO. 3	TBD	Yol 80	0/0.60	All Build Alternatives	Retaining wall at abutment along eastbound I-80 off-ramp to Richards Boulevard
I-80 Managed Lane Direct Connector	TBD	Yol 80	9.5/10.0	Build Alternatives 2b, 3b, 4b, 5b, 6b, 7b	Proposed managed lane connector retaining wall #1; Proposed managed lane connector retaining wall #2

Source: Caltrans Draft Project Report (July 2021)

Ramp Modifications

Within Segment 2, eastbound ramp modifications would be constructed at I-80 eastbound on-ramp from Richards Boulevard to accommodate realignment within the right-of-way. In addition, ramp modifications would occur at the westbound I-80 off-ramp to County Road 32A (CR-32A)/Chiles Road to accommodate additional bicycle/pedestrian pathway within the right-of-way.

Bicycle/Pedestrian Facilities

The Build Alternatives would replace the existing bicycle pathway pavement behind the gas station located north of West Capitol Avenue from post mile 9.15 to post mile 9.35. The existing bicycle pathway would be rerouted during repaving activities for up to two months, but repaving activities may occur at nighttime to minimize access disruption. To maintain access, bicycles traveling westbound would be redirected along West Capitol Avenue. Bicycles traveling eastbound would be redirected along a short segment of sidewalk on West Capitol Avenue and use the crosswalk at the West Capitol Avenue/westbound I-80 off-ramp intersection⁵. Bicyclists would then continue eastbound along West Capitol Avenue using the existing bicycle lane. Caltrans would add crosswalk pavement marking across the westbound I-80 off-ramp to West Capitol Avenue and near the existing West Capitol Avenue crosswalk. In addition, Caltrans would add advanced warning signs to alert the motorists traveling on the westbound off-ramp to West Capitol Avenue before reaching the proposed crosswalk. Caltrans would place signage as part of the TMP to note the access updates and identify the bicycle/pedestrian detours.

The Build Alternatives would also replace the existing bicycle pathway pavement from post mile 9.1 to the Yolo Causeway bridge deck approach at approximately post mile 8.9. While the

⁵ City of West Sacramento Municipal Code 10.32.020 states that bicycles are permitted on the public sidewalk but shall yield to any pedestrian.

existing Class I bicycle pathway is closed, a temporary bicycle pathway with K-rail barrier would be placed along the I-80 westbound on-ramp from West Capitol Avenue. Up to 100 linear feet of existing barrier near post mile 8.9 would be removed and realigned to allow bicycles to rejoin the existing Class I Bicycle Pathway along Yolo Causeway. The existing Class I bicycle pathway along the Yolo Causeway would not require closure during construction activities.

The Build Alternatives would extend the westernmost limit of the existing Class I bicycle pathway from I-80 along Yolo Causeway to connect to CR-32A. The pathway extension would be located adjacent to the westbound I-80 off-ramp to CR-32A and would be approximately 12 feet wide. The area surrounding the pathway extension would be graded to comply with the Americans with Disabilities Act of 1990 (ADA) regulations. A concrete barrier would separate the pathway extension from westbound off-ramp vehicular traffic. Once construction of the pathway extension along westbound I-80 off-ramp is complete, the Build Alternatives would conduct pavement rehabilitation from CR-32A to Levee Road. During pavement rehabilitation activities, Levee Road would be closed. Bicycles would be redirected along the newly constructed pathway extension on westbound I-80 off-ramp to access the existing Class I bicycle pathway along Yolo Causeway, which would be built prior to rehabilitation activities on Levee Road.

The Build Alternatives would include widening the shoulders of CR-32A from the existing Levee Road path to just east of CR-105 to accommodate a standard Class I bicycle path. In addition, the Build Alternatives would include widening the shoulders of CR-32A from CR-105 to the proposed Class I bicycle path along CR-32A to accommodate a standard Class II bicycle lane. Construction of the Class II bicycle lane would involve widening the shoulders by 4 feet for the Class II 6-foot lane on both sides with standard edge line striping. No barriers would be constructed. Caltrans would coordinate with Yolo County Public Works Department to complete this bicycle pathway design along CR-32A.

Park-and-Ride Facility

Within Segment 2 of each of the Build Alternatives, a Park-and-Ride Facility would be constructed on the east side of Enterprise Boulevard in a 4.5-acre lot and would provide for 300 parking spaces. Users of the Park-and-Ride Facility would have the option to park their cars for the day and connect to several counties and regional transit services. The facility is currently undeveloped and would be located partially within existing Caltrans Right of Way (ROW) and partially outside the existing Caltrans ROW as further described in the ROW discussion in Build Alternative 2a and 2b. Landscaping and nighttime lighting are proposed at the Park-and-Ride Facility.

Signage

The Build Alternatives would include roadside signs and overhead signs to provide symbolic or text messages that would guide and warn motorists and regulate the flow of traffic. Some of the signs would have hours of operation that restrict certain classes of vehicles during peak periods. Other signs would have information for motorists of the conditions or hazards that they are approaching.

Roadside signs would include regulatory and warning signs, route shields, and guide signs. These signs would be located on wood or metal posts. Wood posts would be approximately 6-inches by 6-inches while metal posts would be approximately 2.5-inches by 2.5-inches. Roadside signs would be mounted on the freeway concrete median barrier or placed adjacent to the edge of the travel way up to 30 feet. However, placement of roadway signs would avoid environmentally sensitive areas.

Overhead signs would be mounted on versatile truss structures spanning above the travel lanes. The total height of the overhead sign structure (including the sign) would depend on the type of sign being mounted but would not likely exceed 40 feet in height. Overhead sign structures would have a concrete foundation of up to 6.5 feet diameter and would either be supported on a cast-in-drilled-hole pile foundation or supported by a structure.

Lighting

Street lighting would be added near CR-32A at the proposed bicycle pathway extension adjacent to the westbound off-ramp. Within Segment 2, bridge deck lighting with Type 21 Barrier-Rail-Mounted Lighting Standards would be constructed. Additional street lighting would be added to the Bryte Bend Bridge (I-80 Sacramento River Bridge Overhead), but it may also be added at proposed auxiliary lane locations if determined necessary during the design phase. Some nighttime lighting would occur during nighttime construction work activities as well as at the Park-and-Ride Facility. Signage would use reflective lettering.

Road Cut/Fill

Some locations would require full structural section reconstruction, and other locations would require cut or fill of embankment due to road widening.

Grinding

Cold planing, the process of removing part of the surface of a paved area, would be required throughout the project limits. Cold planing would be required for ramp conforms at all ramps and may be required at other locations along the travel way wherever hot mix asphalt is currently in place. A mill (cold planing) and fill operation may be proposed to repair roadway surface scarring that occurs during temporary restripe associated with some stage construction operations.

Site Preparation

Site preparation would include delineating construction work areas, installing environmentally sensitive area (ESA) fencing around sensitive habitats and cultural resource areas, installing wildlife exclusion fencing around staging areas, installing best management practices (BMPs) in accordance with the project's Stormwater Pollution Prevention Plan (SWPPP), and removing vegetation.

Utilities

Build Alternatives 2a, 3a, 4a, 5a, 6a, and 7a would not result in potential conflicts with existing utilities that are present along the I-80/US-50 corridor. Utility companies would require verification of facilities and involvement in construction plans. Accordingly, prior to construction, an estimated 15 test hole sites would be drilled at eight different locations for natural gas lines running transversely underneath I-80, the Yolo Causeway, and West Capitol Avenue in Sacramento where the new managed lane would be constructed with retaining walls and columns. Positive findings would verify whether the gas line would require relocation or how to redesign the project components to avoid conflicts with existing utilities.

Under all Build Alternatives, removal of an existing overhead sign near Westacre Park, within Caltrans right-of-way, would require an overhead electrical distribution line to be temporarily de-energized. Under Build Alternatives 2b, 3b, 4b, 5b, 6b, and 7b, up to four 115-kilovolt overhead utility towers may be relocated or tower height increased near the new I-80 managed lane direct connector at the I-80/US-50 separation in West Sacramento.

Fiber-Optic Cable

The Build Alternatives would install a fiber-optic cable line and associated fiber optic splice boxes within the roadbed at the eastbound outside shoulder of I-80 from west of Kidwell Road in Solano County at post mile 40.7 to post mile 4.35 in Yolo County. Cut and cover or trenching would be the primary construction method and would require excavation of up to 42 inches deep to install within a 12-foot buffer surrounding the running line. Fiber-optic cable may also be placed via directional borings to avoid conflicts with existing utilities.

Right-of-Way and Temporary Construction Easements

The Build Alternatives would require Caltrans to acquire two private fee parcels to construct the proposed Park-and-Ride Facility at Enterprise Boulevard (2.8 acres). A total of five Temporary Construction Easements (TCEs) would be required along the project alignment for a total of 12.24 acres. No displacement of any residences or businesses would be required.

Staging Areas

Staging areas would be located at the I-80/West El Camino Avenue interchange, South River Road, I-80/Richards Boulevard interchange, the I-80 and SR-113 interchange, West Capitol Avenue, and along Kidwell Road. These areas total 53.31 acres and would be used for equipment maintenance and storage of equipment, construction materials, fuels, lubricants, solvents, and other possible contaminants during construction.

Traffic Management during Construction

Various Transportation Management Plan (TMP) elements such as portable changeable message signs (CMS) and the California Highway Patrol Construction Zone Enhanced Enforcement Program would be used to minimize delays for the traveling public. Flaggers would be used to divert traffic. Prior to construction, a detailed TMP would be prepared.

Ramp closures are anticipated at all ramp locations adjacent to proposed widening or proposed mainline paving. Traffic would be detoured to the next interchange. Caltrans would also place signage as part of the TMP to note the access updates and identify the bicycle/pedestrian detours. Caltrans would install a cross walk at the westbound I-80 off-ramp across right turn movement to West Capitol Avenue as well as a temporary flashing beacon located upstream.

Build Alternatives 2b, 3b, 4b, 5b, 6b, and 7b may require a temporary, full closure on westbound US-50 for construction of the direct connector structure. Full closures would most likely occur during the hours of the lowest volume of traffic (e.g., nighttime) or during a continuous 24- or 48-hour operation, but may also occur during daytime. The anticipated closure would occur for up to three nights to install falsework and then three additional nights to remove falsework for construction of the direct connector structure. The primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. Local traffic would use other interchanges in the area.

Vegetation and Tree Removal

Vegetation clearing would be required and would be confined to the area within the project footprint, including construction access routes. Vegetation removal and clearing would be completed with hand tools where possible. Chainsaws, grinders, and excavators would be used for vegetation that cannot be removed by hand. All vegetation would be removed within proposed cut and fill lines as well as within temporary impact lines where ITS components would be constructed. Within areas of temporary impact, vegetation removal would be avoided to the extent possible.

Construction Equipment

The equipment used for the proposed work of the Build Alternatives would be similar among the Build Alternatives. Center median work would use excavators, scrapers, motor graders, loaders, backhoes, pavers, concrete barrier slip form pavers, truck mounted cranes, 18-wheel trucks, dump trucks, and water trucks. Reconstruction and modification of ramps/gores/shoulder embankments would use excavators, motor graders, loaders, backhoes, pavers, 18-wheel trucks, dump trucks, and water trucks. Road surfacing work, including placement for sensors in the road surface, would use core drillers, trailers containing and dispersing sealant, and water trucks.

Construction of the I-80 managed lane direct connector under Build Alternatives 2b, 3b, 4b, 5b, 6b, and 7b would require pile driving to install the footings to a depth of up to 40 feet. Equipment would also include a crane (for pile driving), excavator, dozer, loader, manlift, articulated 4x4 forklift, truck, dump truck, trailer unit air compressor, and water truck. This construction equipment would also be used for structural sign mounts along with a truck mounted crane for all Build Alternatives. A truck-mounted auger would be used for installing roadside signs.

Ground Disturbance

The depth of ground disturbance would vary throughout the project limits. At locations where CMS, sign structures, or piles would be installed, disturbance could be up to 30 feet deep. As

described, construction of the I-80 managed lane direct connector under Build Alternatives 2b, 3b, 4b, 5b, 6b, and 7b would require pile driving to install the footings to a depth of up to 40 feet. At locations of culverts, depth of ground disturbance could vary from 3 feet to 10 feet (i.e., the estimated depth to the bottom of a culvert or inlet). At locations of linear electrical facilities such as fiber-optic and conduit installations, the ideal depth is typically 4 feet, assuming 42 inches of cover; however, depth could be increased to avoid conflicts with existing or proposed drainage or existing utilities.

Site Cleanup and Post-Construction Activities

All construction materials and debris would be removed from the construction work areas and recycled or properly disposed of offsite. Caltrans would restore all areas temporarily disturbed by project activities, such as staging areas and access roads, to near or better than pre-construction conditions in accordance with applicable permits and Caltrans requirements.

1.5.1.3 Unique Features of the Build Alternatives

A figure depicting each build alternative appears in Figure 1-2.

Build Alternative 2a and 2b: HOV2+ Managed Lane

Lane Configuration – Build Alternative 2a and 2b

Build Alternatives 2a and 2b would start from the Solano/Yolo County Line west of the City of Davis to West El Camino Avenue on I-80 and I-5 on US-50 in Sacramento County. Build Alternatives 2a and 2b would include an HOV2+ managed lane in the eastbound and westbound direction. This would be accomplished by constructing in the median from the Solano/Yolo County line to west of the Yolo Causeway and continuing eastward by restriping to West El Camino Avenue on I-80 and to I-5 on US-50 in Sacramento County.

Build Alternative 2b would involve construction of an I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 2a. The I-80 managed lane direct connector would provide a direct connection of the HOV2+ managed lane by flying over US-50 at the I-80/US-50 Interchange. The connector would include a retaining wall on either side and would travel underneath the existing eastbound connector from I-80 to US-50. The proposed managed lane direct connector would be constructed of columns and include concrete barrier type 842 railings.

Segment 1

Segments 1a, 1b, and 1c would be restriped with 6-inch thermoplastic traffic stripes for three mixed-flow lanes and one managed lane in each direction, westbound and eastbound.

Within Segment 1b, from just west of the Solano/Yolo County Line to the west end of the Yolo Causeway, the project would involve replacement of the existing inside shoulders and construction of the eastbound and westbound median from around Richards Boulevard to 1.5 miles east of Mace Boulevard to accommodate managed lanes in the eastbound and westbound directions. The new shoulders and construction areas would be asphalt concrete material. The median barriers would be upgraded from a metal beam guard rail to a reinforced concrete barrier.

Segment 2

Within Segment 2, the Bryte Bend Bridge over the Sacramento River would be restriped to accommodate the HOV2+ managed lane in each direction. Reducing lane and shoulder widths would accommodate a fourth lane on the Bryte Bend Bridge. The bridge striping would change from three lanes (two 12-foot lanes and one 11.5-foot lane) to four lanes (four 11-foot lanes) with 1-foot inside and 2.5-foot outside shoulders.

Segment 3

Within Segment 3a, from I-80/US-50 Separation to Jefferson Boulevard Undercrossing, the pavement would be restriped to convert one mixed-flow lane in each direction to managed lanes.

Within Segment 3b, from the Jefferson Boulevard Undercrossing to just east of I-5, the Jefferson Boulevard Undercrossing (Br. No. 22-0106 L/R), and the Sacramento River viaduct (Br. No. 24-0014 R/L) between Jefferson Boulevard and the I-5/US-50 interchange would be restriped to add an additional managed lane in each direction.

Lane Access – Build Alternative 2a and 2b

An HOV lane is a type of managed lane that allows qualified users, who meet the minimum number of passengers, to use the managed lane. The number of vehicle occupants required to qualify can vary depending on location. Under Build Alternatives 2a and 2b, vehicles with two or more occupants would be permitted to access the HOV lane, and all other vehicles would be

prohibited from using those lanes. The HOV lanes would be designated using a striping pattern and a diamond marking to distinguish them from mixed-flow lanes and would operate only during peak commute hours.

Signage – Build Alternatives 2a and 2b

Approximately 45 overhead signs would be replaced or proposed within the project area. Several existing overhead signs would be removed and not replaced. In addition, 311 roadside signs would be replaced and 221 roadside signs are proposed within the median or the shoulder. Proposed signage would be the same for Build Alternatives 2a and 2b.

Drainage/Culverts – Build Alternatives 2a and 2b

Anticipated work includes extending existing culverts through existing unpaved medians, extending existing culverts at locations where construction may occur outside the existing edge of pavement lining, and possibly abandoning existing culverts where median construction would occur in crowned sections of the roadway. New drainage inlets and culverts are proposed to be replaced or repaired to accommodate areas where existing shoulders are being narrowed, to accommodate additional runoff due to the increased pavement area, or to perpetuate existing drainage patterns. The linings of one pipe would occur using cast-in-place-pipe lining (CIPP). CIPP is a method to repair pipes without needing to trench by inserting a liner inside the existing culvert pipe.

Build Alternatives 2a and 2b would construct 5 new culverts and replace or improve 21 existing culverts. As described, many of the proposed drainage features would be located within the construction footprint of the median for the new HOV2+ managed lane. In addition, proposed culverts would traverse beneath the freeway to convey drainage to a new outlet. In these instances, the freeway would be trenched using an excavator and the barrel would be installed. Once the barrel is installed, the trench would be backfilled and compacted back to preconstruction conditions. Trenching across the freeway travel lanes would occur in segments during low peak (nighttime) traffic hours to maintain access. Construction of each new or replaced culvert would occur over approximately two nights; however, construction of several culverts could occur concurrently as further described in the construction schedule. It is assumed each of these culvert repair or replacement areas would have a 20-foot by 20-foot temporary construction impact footprint, not to exceed the roadway right of way. Proposed drainage features for the I-80 managed lane direct connector, under Build Alternative 2b, would occur within the construction footprint of the I-80 managed lane direct connector.

Construction Schedule – Build Alternatives 2a and 2b

Construction of Build Alternative 2a is anticipated to take approximately 443 construction working days over 22 months. Construction of Build Alternative 2b is anticipated to take approximately 732 construction working days over 36 months. Construction would potentially commence in Spring 2025. Due to high daytime traffic volumes, nighttime work would be expected. Both daytime and nighttime work should be anticipated throughout the project duration.

Build Alternative 3a and 3b: HOT2+ Managed Lane

Build Alternatives 3a and 3b would be the same as Build Alternatives 2a and 2b, respectively, but would include an HOT2+ managed lane instead of an HOV2+ lane. Build Alternative 3b would involve construction of the I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 3a.

The HOT managed lane would allow vehicles with a minimum two-person occupancy to use the lane for free, while single-occupied vehicles would pay for the lane usage. All other project components would be the same as Build Alternatives 2a and 2b, respectively, with the exception of signage locations.

Approximately 79 overhead signs would be replaced or proposed within the project area. Several existing overhead signs would be removed and not replaced. In addition, 311 roadside signs would be replaced and 373 roadside signs are proposed within the median or the shoulder.

Build Alternative 4a and 4b: HOT3+ Managed Lane

Build Alternatives 4a and 4b would be the same as Build Alternatives 2a and 2b, respectively, but would include an HOT3+ managed lane instead of an HOV2+ lane. Build Alternative 4b would involve construction of the I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 4a.

The HOT managed lane would allow vehicles with a minimum three-person occupancy to use the lane for free. Vehicles with less than three riders would pay for the lane usage. Vehicles with two passengers may pay reduced or full tolls to travel within the HOT lane. All other project components would be the same as Build Alternatives 2a and 2b, respectively, with the exception of signage locations.

Proposed signage for Build Alternatives 4a and 4b would be the same as Build Alternatives 3a and 3b, respectively.

Build Alternative 5a and 5b: Express Managed Lane

Build Alternatives 5a and 5b would be the same as Build Alternatives 2a and 2b, respectively, but would include an express lane instead of an HOV2+ lane. Build Alternative 5b would involve construction of the I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 5a. An express lane is a managed lane that allows vehicles of any occupancy to access a dedicated lane once a toll is paid. All other project components would be the same as Build Alternatives 2a and 2b, respectively, with the exception of signage locations.

Proposed signage for Build Alternatives 5a and 5b would be the same as Build Alternatives 3a and 3b, respectively.

Build Alternative 6a and 6b: Transit-Only Managed Lane

Build Alternatives 6a and 6b would be the same as Build Alternatives 2a and 2b, respectively, but would include transit-only managed lanes instead of HOV2+ lanes. Build Alternative 6b would involve construction of the I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 6a. A transit-only lane is a managed lane that allows only approved public transit vehicles, such as bus services, to access a dedicated lane. All other project components would be the same as Build Alternatives 2a and 2b, including the proposed signage for Build Alternatives 6a and 6b, respectively.

Build Alternative 7a and 7b: Repurpose Lane to HOV2+ Managed Lane

Build Alternatives 7a and 7b would repurpose the current number one general-purpose lanes to HOV2+ managed lanes. No new lanes would be constructed. Build Alternative 7b would involve construction of the I-80 managed lane direct connector in addition to the construction activities planned for Build Alternative 7a.

Lane Configuration - Build Alternative 7a and 7b

Build Alternatives 7a and 7b would maintain the existing median pavement delineation, unpaved median, and add an HOV2+ lane by repurposing an existing mixed-flow lane (lane number one). As a result, Build Alternatives 7a and 7b would not shift the edge of travel way into the median or require barrier beam removal within the median.

Lane Access - Build Alternative 7a and 7b

Vehicles with two or more occupants would be permitted to access the HOV2+ lane, and all other vehicles would be prohibited from using them. The HOV2+ lanes would be designated using a striping pattern and a diamond marking to distinguish them from mixed-flow lanes. HOV2+ lanes would only operate during peak commute hours.

Signage – Build Alternative 7a and 7b

Proposed signage for Build Alternatives 7a and 7b would be the same for Build Alternatives 2a and 2b, respectively.

Drainage/Culverts – Build Alternatives 7a and 7b

Build Alternatives 7a and 7b would repurpose the current number one general-purpose lanes to HOV2+ managed lanes. Therefore, culvert construction associated with Build Alternative 7a would only be related to replacements or improvements to 18 existing culverts. Build Alternative 7b would construct 5 new culverts associated with the I-80 managed lane direct connector. Construction methods would be the same as Build Alternatives 2a and 2b, respectively. The lining of one pipe would also occur using CIPP. As stated earlier, CIPP is a method to repair pipes without needing to trench by inserting a liner inside the existing culvert pipe.

Construction Schedule – Build Alternative 7a and 7b

Construction of Build Alternative 7a is anticipated to take approximately 180 construction working days over 10 months. Construction of Build Alternative 7b is anticipated to take 732 construction working days over 36 months to complete. Construction would potentially commence in Spring 2025. Due to high daytime traffic volumes, nighttime work would be expected. Both daytime and nighttime work should be anticipated throughout the project duration.

1.5.2 Alternative 1 – No-Build Alternative

The No-Build Alternative would maintain the existing conditions, and no work would be conducted to relieve current traffic congestion to improve traffic flow, mobility, and travel time reliability while at the same time reducing vehicle emissions and travel costs. The No-Build Alternative would not provide a transportation facility that functions for all users, including bicyclists, pedestrians, local transit services, and freight. Recurring travel demand would continue to exceed the current design capacity of the highway, resulting in severe traffic congestion and impaired mobility. Additionally, the transportation network would not include adequate facilities for all modes of transportation.

1.6 Study Area

The Project area is defined as the Project footprint, including all Project components, staging areas, temporary construction access routes, and other project features. This CIA defines the following three different study areas for different topics:

- Land Use Study Area
- Community Study Area
- Regional Study Area

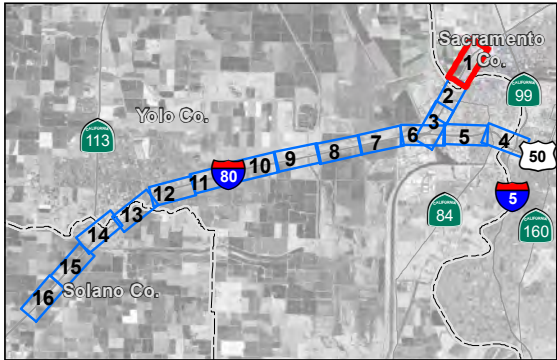
To evaluate effects on land use, the Land Use Study Area is defined as the physical areas directly surrounding I-80/US-50 in the Project area that have the potential to experience direct effects associated with the Project. The Land Use Study Area includes the Project area, plus a 1,000-foot buffer (Figure 1-3). The Land Use Study Area includes the population most likely to experience direct and indirect effects (e.g., noise, visual effects) associated with the Project's direct physical improvements.

The Community Study Area includes all census tracts and block groups immediately adjacent to the Project footprint (Figure 1-4). Demographic characteristics for the Community Study Area, including population demographics and economic data, were obtained from the U.S. Census Bureau for the applicable census tracts and census block groups. The Community Study Area was used to evaluate effects on community character.

The Regional Study Area (Figure 1-5) considers the potential effects on the likely users of I-80 in the Project area. Existing trip pattern data (Fehr & Peers 2021a) and the MTP/SCS has informed the determination of the Regional Study Area. The Regional Study Area comprises the greater Sacramento area, including Sacramento County and the surrounding counties of El

Dorado, Placer, Sutter, Yolo, and Yuba as defined by the MTP/SCS. The Regional Study Area is used to determine regional population characteristics, compare regional population demographics to the Community Study Area, discuss planned growth in the region, and define the community demographics of the “travelshed” – the larger geographic catchment.

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Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
 - ESL
 - Post Mile
 - Intelligent Transportation System Improvement
 - Intelligent Transportation System Improvement Disturbance Area
 - Staging Area
 - County Line
- Signage and Read Point Locations**
- All Alternatives
 - Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

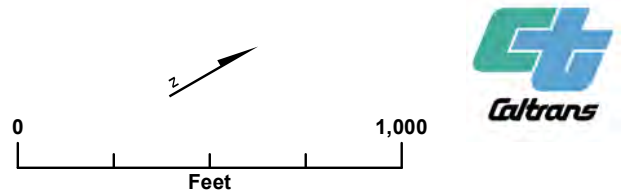
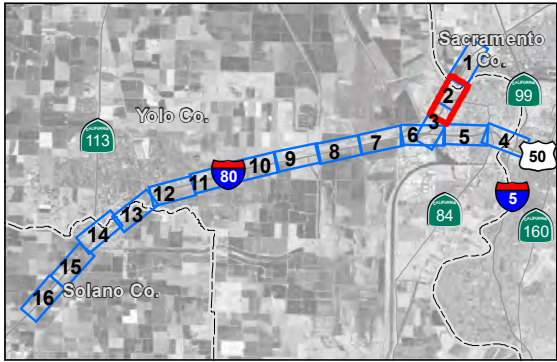


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 1 of 16

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.



Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
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- R/W
 - ESL
 - Post Mile
 - County Line
- Signage and Read Point Locations**
- Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

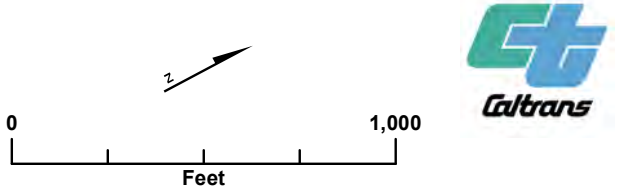
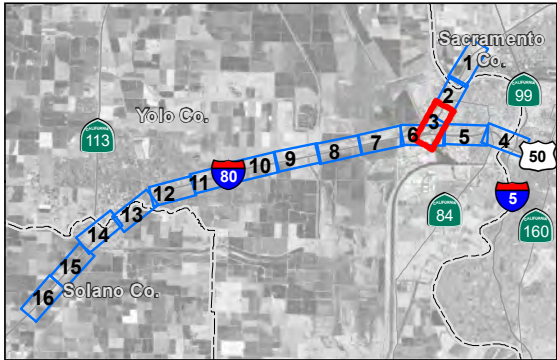


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 2 of 16

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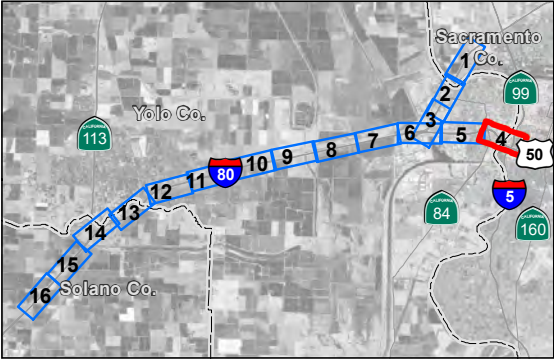
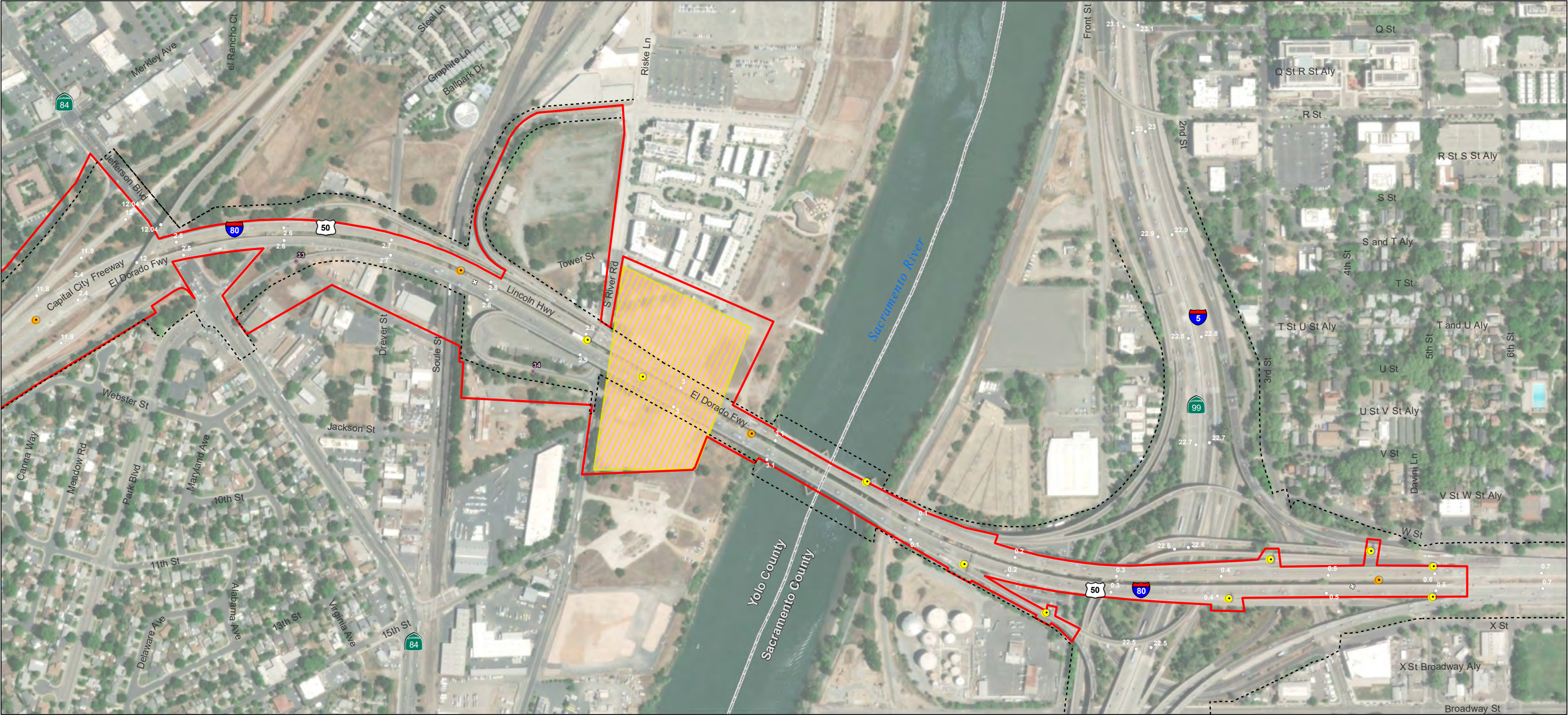
- R/W
 - ESL
 - Post Mile
 - Culvert Work Area
 - ▨ Temporary Construction Easement
- Signage and Read Point Locations**
- Alternatives 2a, 6a, and 7a only
 - Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

Notes
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2. Data Sources: CalTrans, Stantec, 2021
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Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
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2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
 - ESL
 - Post Mile
 - Intelligent Transportation System Improvement
 - Intelligent Transportation System Improvement Disturbance Area
 - Staging Area
 - Temporary Construction Easement
 - County Line
- Signage and Read Point Locations**
- All Alternatives
 - Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

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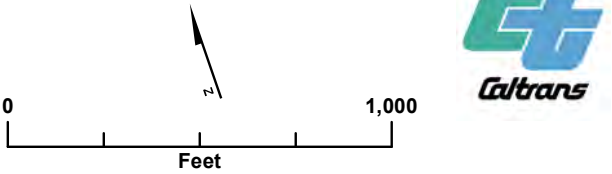
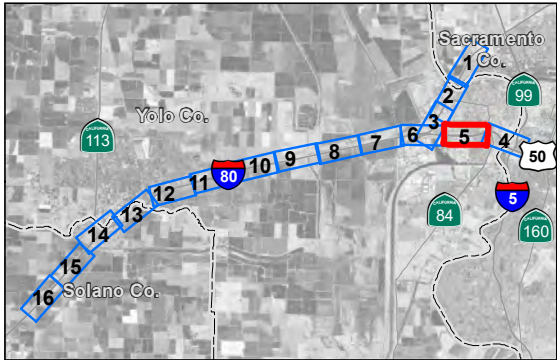


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
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- R/W
- ESL
- Post Mile
- Trash Rack
- Signage and Read Point Locations**
 - All Alternatives
 - Alternatives 2a, 6a, and 7a only
 - Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)
- Culverts and Drainage**
 - All Alternatives

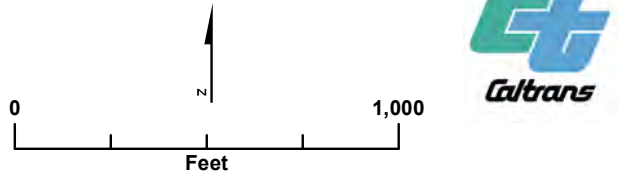
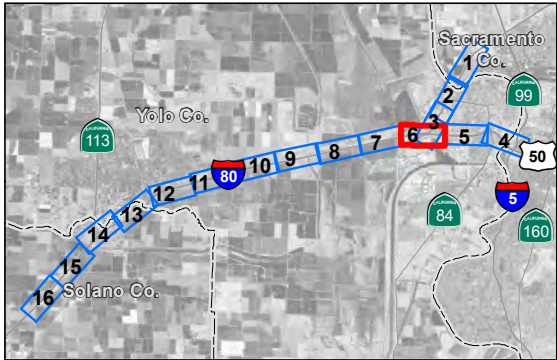


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 5 of 16

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

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2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Proposed Park & Ride Lot
- Permanent Easement
- Temporary Disturbance
- Culvert Work Area
- Temporary Construction Easement
- Existing Class I Bikeway
- Temporary Bike Detour
- Temporary Bike Detour (eastbound only)

- Signage and Read Point Locations**
- Alternatives 2a, 6a, and 7a only
 - Alternatives 3a, 4a, and 5a only
 - Read Point (Alternatives 3a, 4a, and 5a only)

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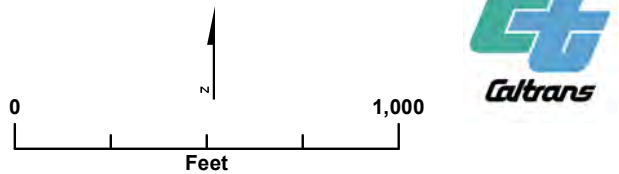
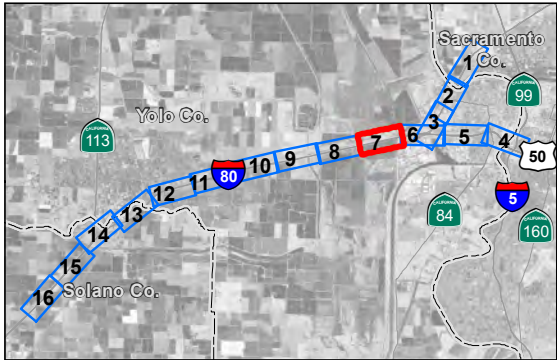
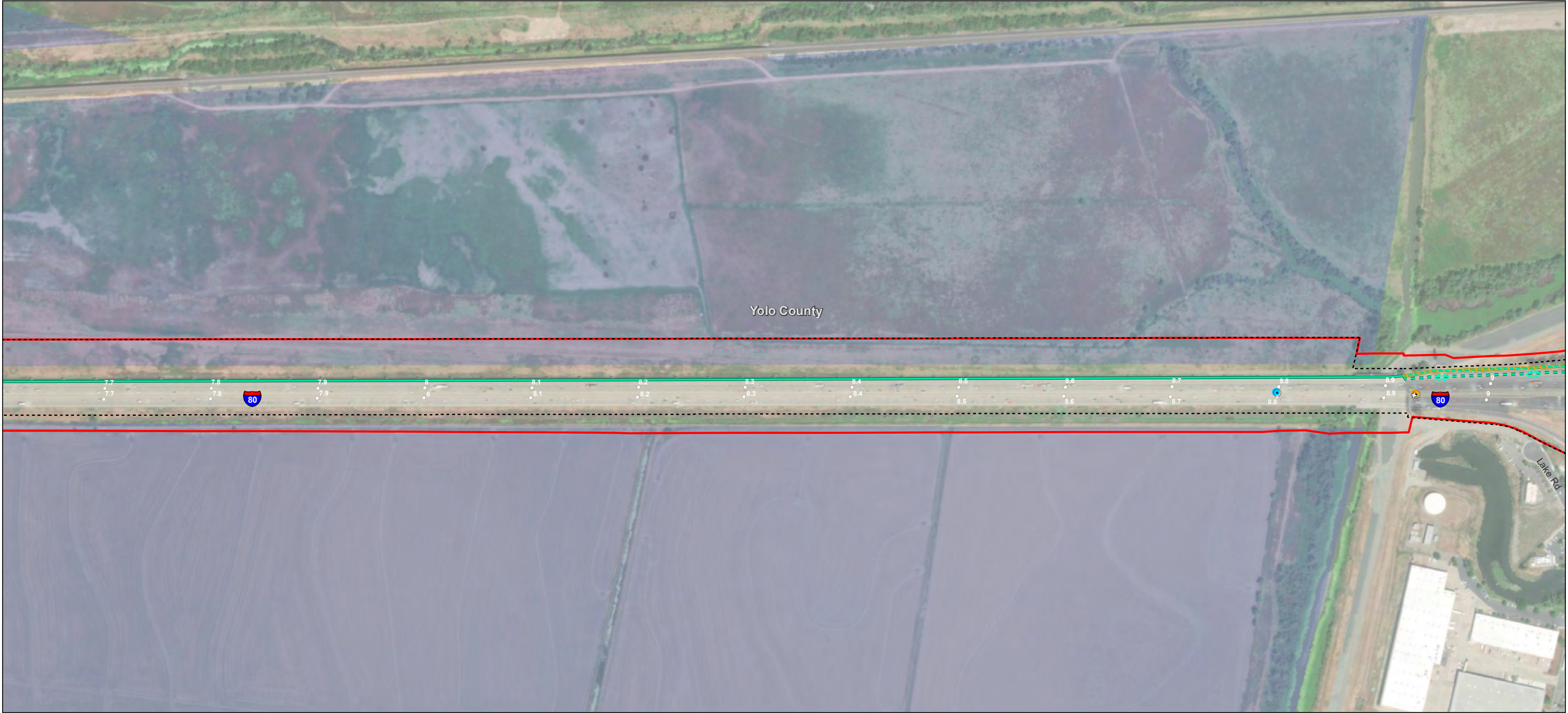


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
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2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
 - ESL
 - Post Mile
 - Temporary Disturbance
 - Existing Class I Bikeway
 - Temporary Bike Detour
 - Yolo Bypass Wildlife Area
- Signage and Read Point Locations**
- Alternatives 2a, 6a, and 7a only
 - Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

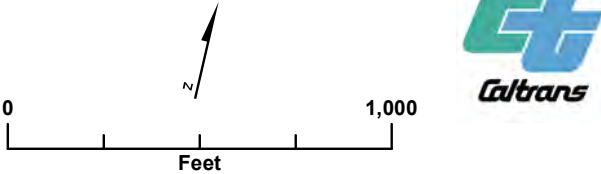
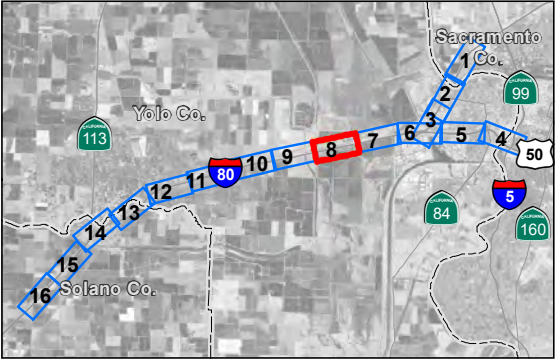


Figure 1-2a
Project Design: Build Alternatives 2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 7 of 16

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- R/W
 - ESL
 - Post Mile
 - Existing Class I Bikeway
 - Yolo Bypass Wildlife Area
- Signage and Read Point Locations**
- Alternatives 3a, 4a, and 5a only
 - ⊕ Read Point (Alternatives 3a, 4a, and 5a only)

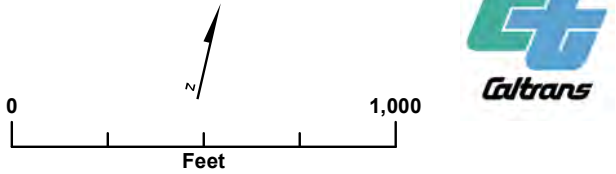
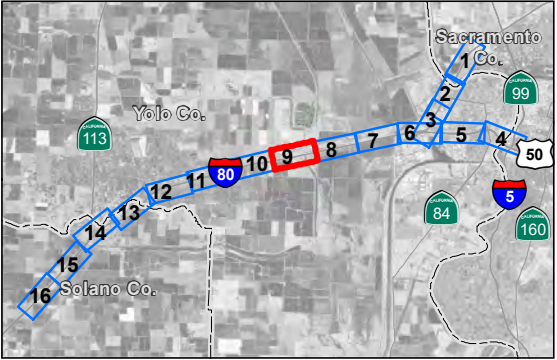
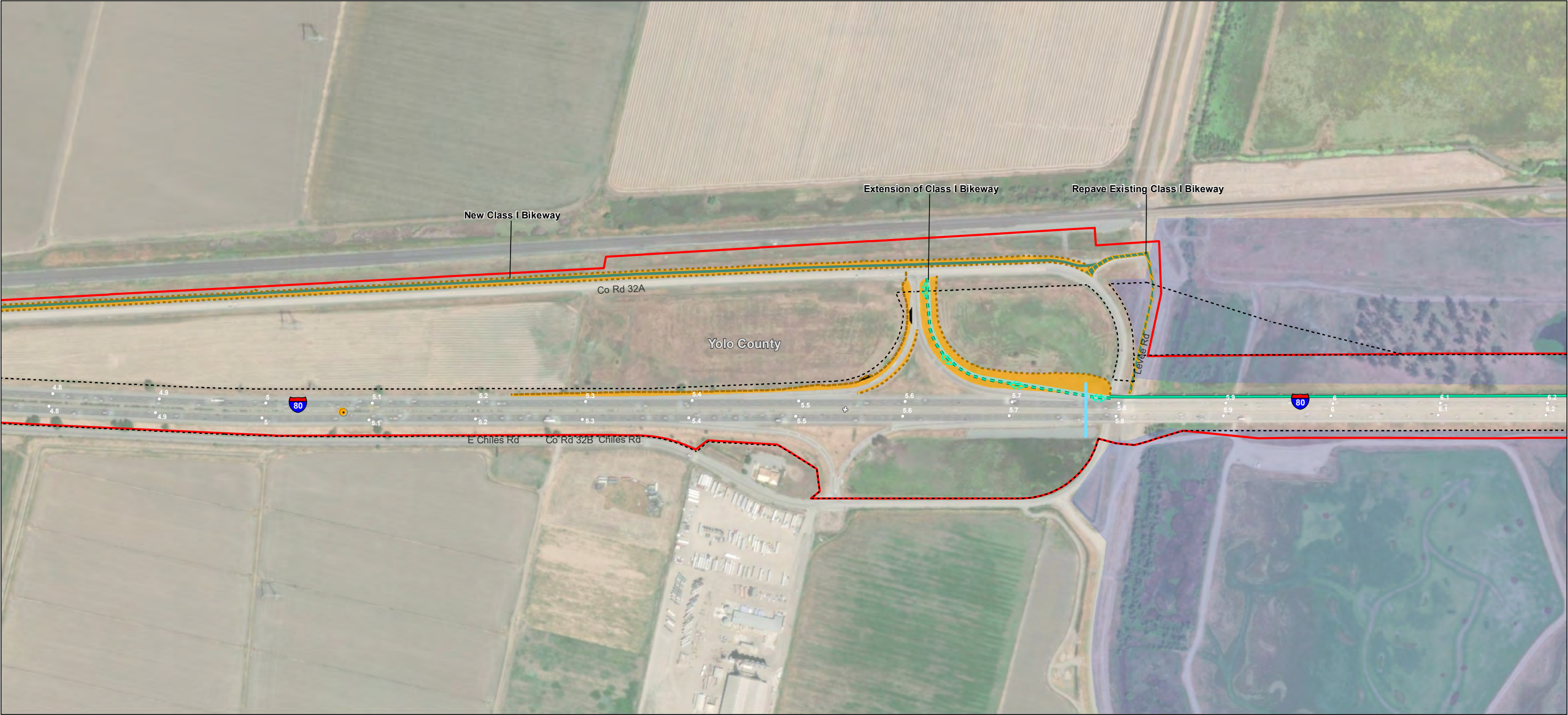


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 8 of 16

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

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3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Temporary Disturbance
- Cut-Fill
- Cut-Fill Disturbance Area
- Existing Class I Bikeway
- Extension of Class I and Class II Bikeway
- Extension of Class I Bikeway
- Temporary Bike Detour
- Yolo Bypass Wildlife Area
- Pullout
- Signage and Read Point Locations**
 - Alternatives 3a, 4a, and 5a only
 - Read Point (Alternatives 3a, 4a, and 5a only)
- Culverts and Drainage**
 - All Alternatives

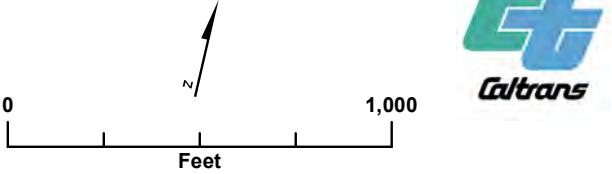
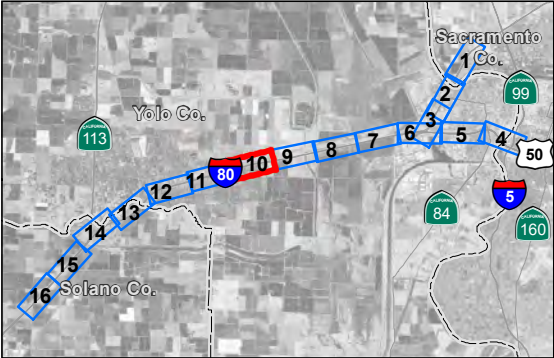


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 9 of 16

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

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Notes
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2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Intelligent Transportation System Improvement
- Intelligent Transportation System Improvement Disturbance Area
- Fiber Optic Cable
- Fiber Optic Cable Disturbance Area
- Cut-Fill
- Cut-Fill Disturbance Area
- Widening - Median (Does not apply to Alternative 7a)
- Extension of Class I and Class II Bikeway

- Yolo Bypass Wildlife Area
- Signage and Read Point Locations**
 - Read Point (Alternatives 3a, 4a, and 5a only)
- Culverts and Drainage**
 - All Alternatives
 - Alternatives 2a-6a

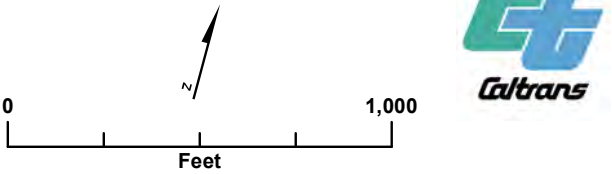
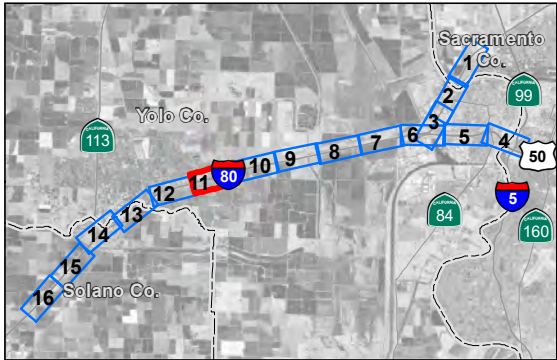
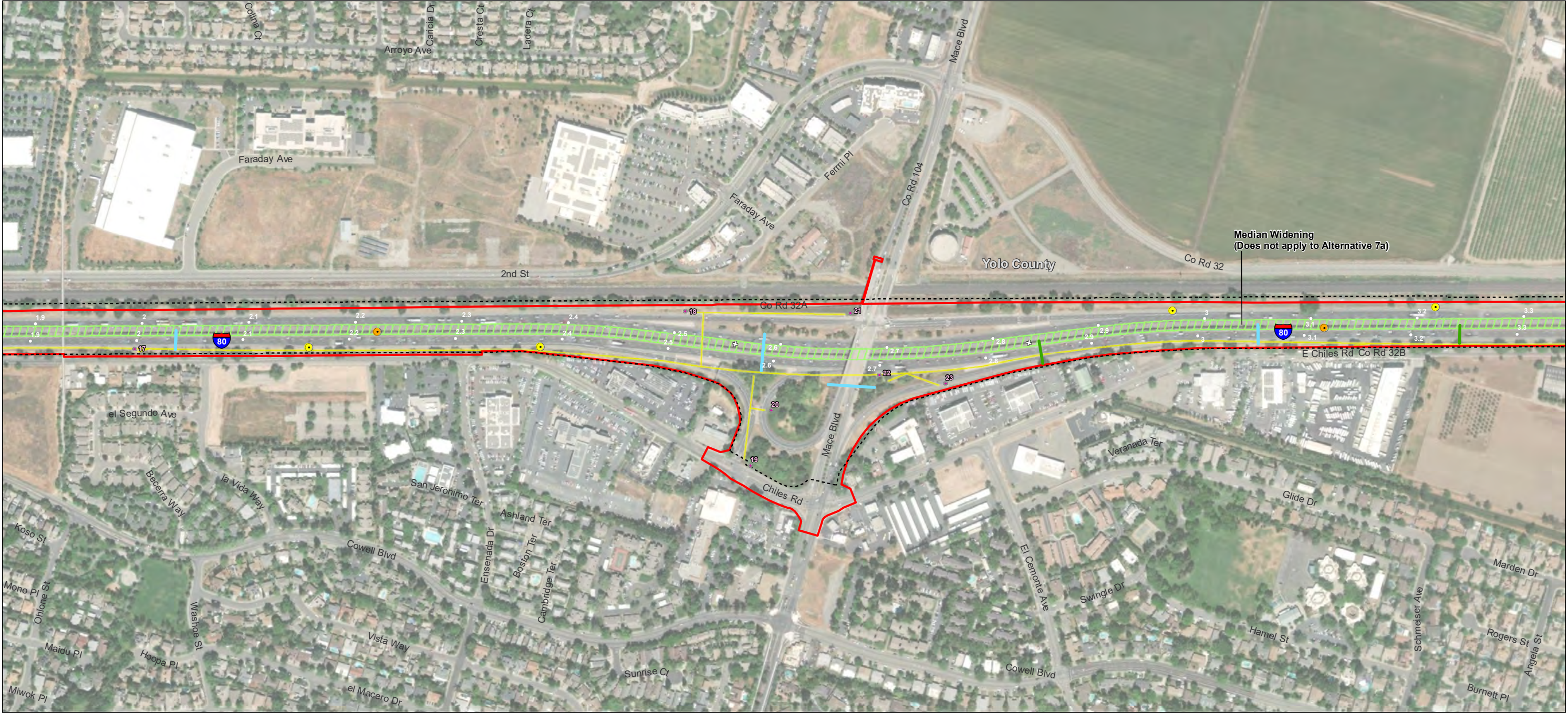


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

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Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Intelligent Transportation System Improvement
- Intelligent Transportation System Improvement Disturbance Area
- Fiber Optic Cable
- Fiber Optic Cable Disturbance Area
- Widening - Median (Does not apply to Alternative 7a)
- Signage and Read Point Locations**
 - All Alternatives
 - Alternatives 3a, 4a, and 5a only
 - Read Point (Alternatives 3a, 4a, and 5a only)

Culverts and Drainage
All Alternatives
Alternatives 2a-6a

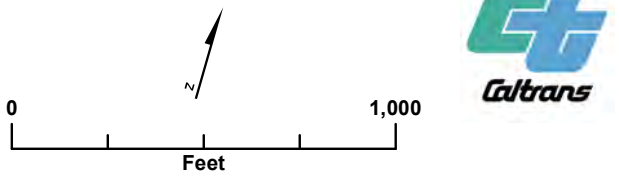
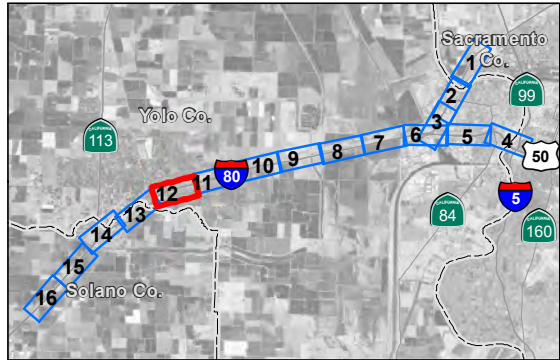


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 11 of 16

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

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Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Intelligent Transportation System Improvement
- Intelligent Transportation System Improvement Disturbance Area
- Fiber Optic Cable
- Fiber Optic Cable Disturbance Area
- Cut-Fill Disturbance Area
- Staging Area
- Widening - Outside Lanes/Shoulder
- Widening - Median (Does not apply to Alternative 7a)

- Realigned Richards Blvd On-ramp
- Pullout
- Signage and Read Point Locations**
 - All Alternatives
 - Alternatives 3a, 4a, and 5a only
 - Read Point (Alternatives 3a, 4a, and 5a only)
- Culverts and Drainage**
 - All Alternatives

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

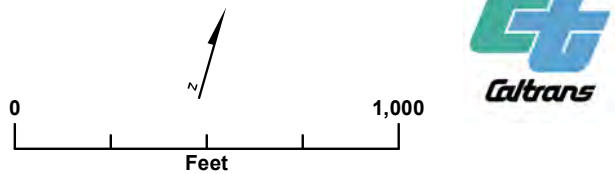
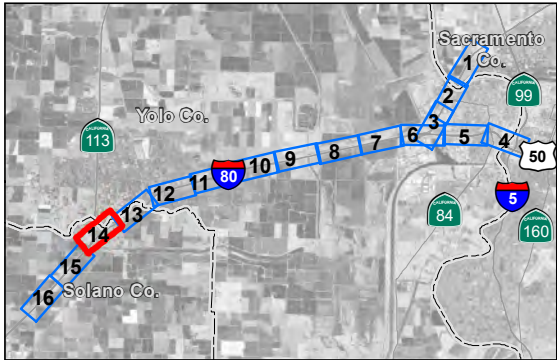


Figure 1-2a
Project Design: Build Alternatives 2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

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Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
 - ESL
 - Post Mile
 - Intelligent Transportation System Improvement
 - Intelligent Transportation System Improvement Disturbance Area
 - Fiber Optic Cable
 - Fiber Optic Cable Disturbance Area
 - Staging Area
 - Pullout
 - County Line
- Signage and Read Point Locations**
- All Alternatives

- Alternatives 2a, 6a, and 7a only
- Alternatives 3a, 4a, and 5a only

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

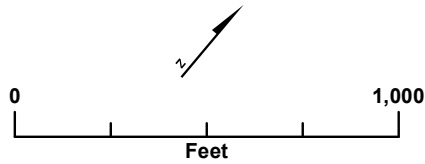
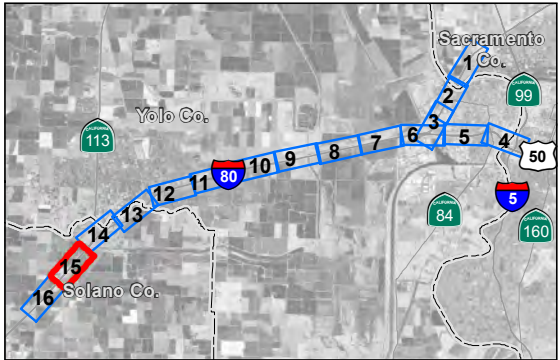
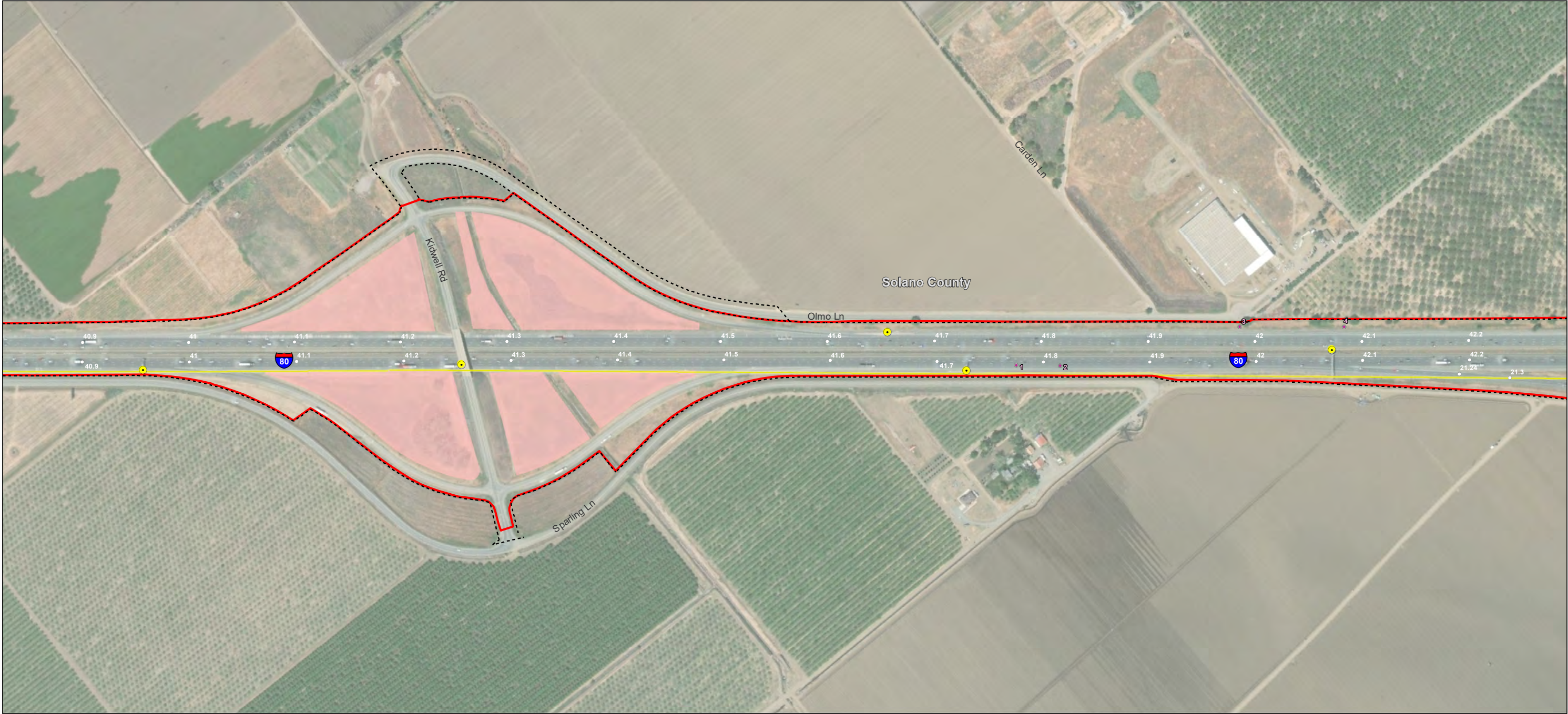


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 14 of 16

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Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, 2021
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Intelligent Transportation System Improvement
- Intelligent Transportation System Improvement Disturbance Area
- Fiber Optic Cable
- Fiber Optic Cable Disturbance Area
- Staging Area
- Signage and Read Point Locations**
- All Alternatives

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.

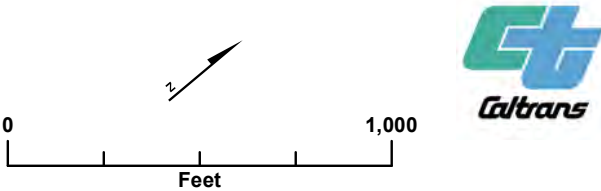
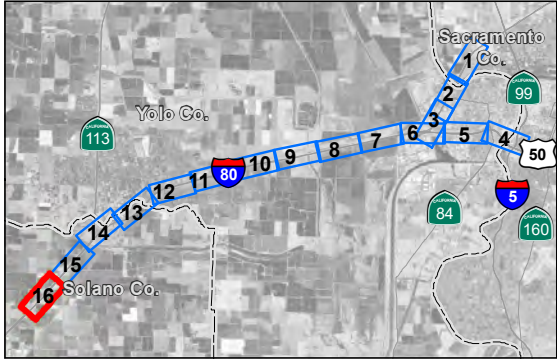


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California
Sheet 15 of 16

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- Notes**
- 1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
 - 2. Data Sources: CalTrans, Stantec, 2021
 - 3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- R/W
- ESL
- Post Mile
- Fiber Optic Cable
- Yellow box Fiber Optic Cable Disturbance Area

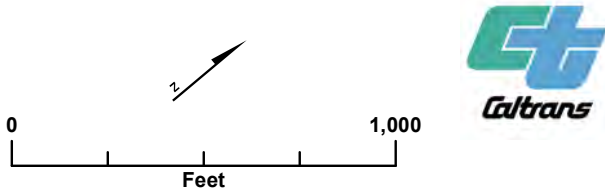
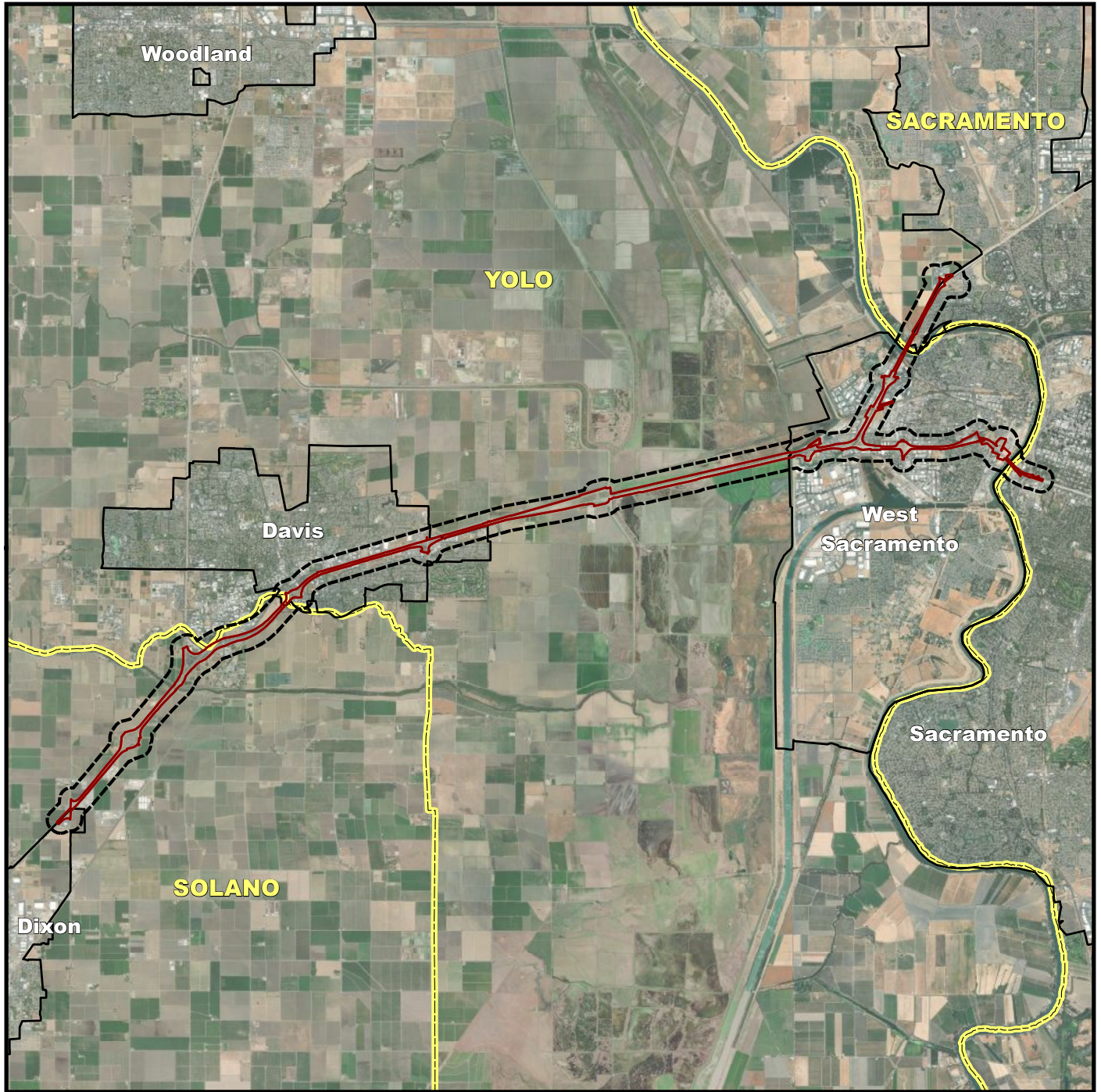


Figure 1-2a
Project Design: Build Alternatives
2a, 3a, 4a, 5a, 6a, 7a
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Note: The project design components depicted in this figure are preliminary. Proposed surface treatments such as striping are not included.



Legend

- Project Limits
- Land Use Study Area

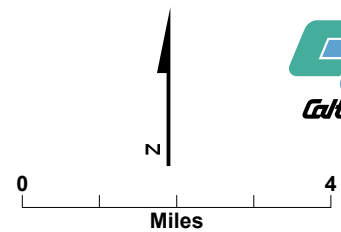


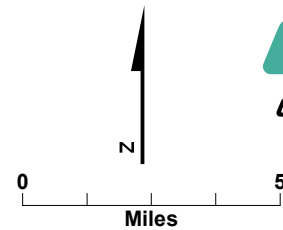
Figure 1-3
Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties,
California

Service Layer Credits:
ESRI, National Geographic, DigitalGlobe, GeoEye
Data Sources: CalTrans, Stantec, AWE, 2021-2022
Date: 8/30/2022



Legend

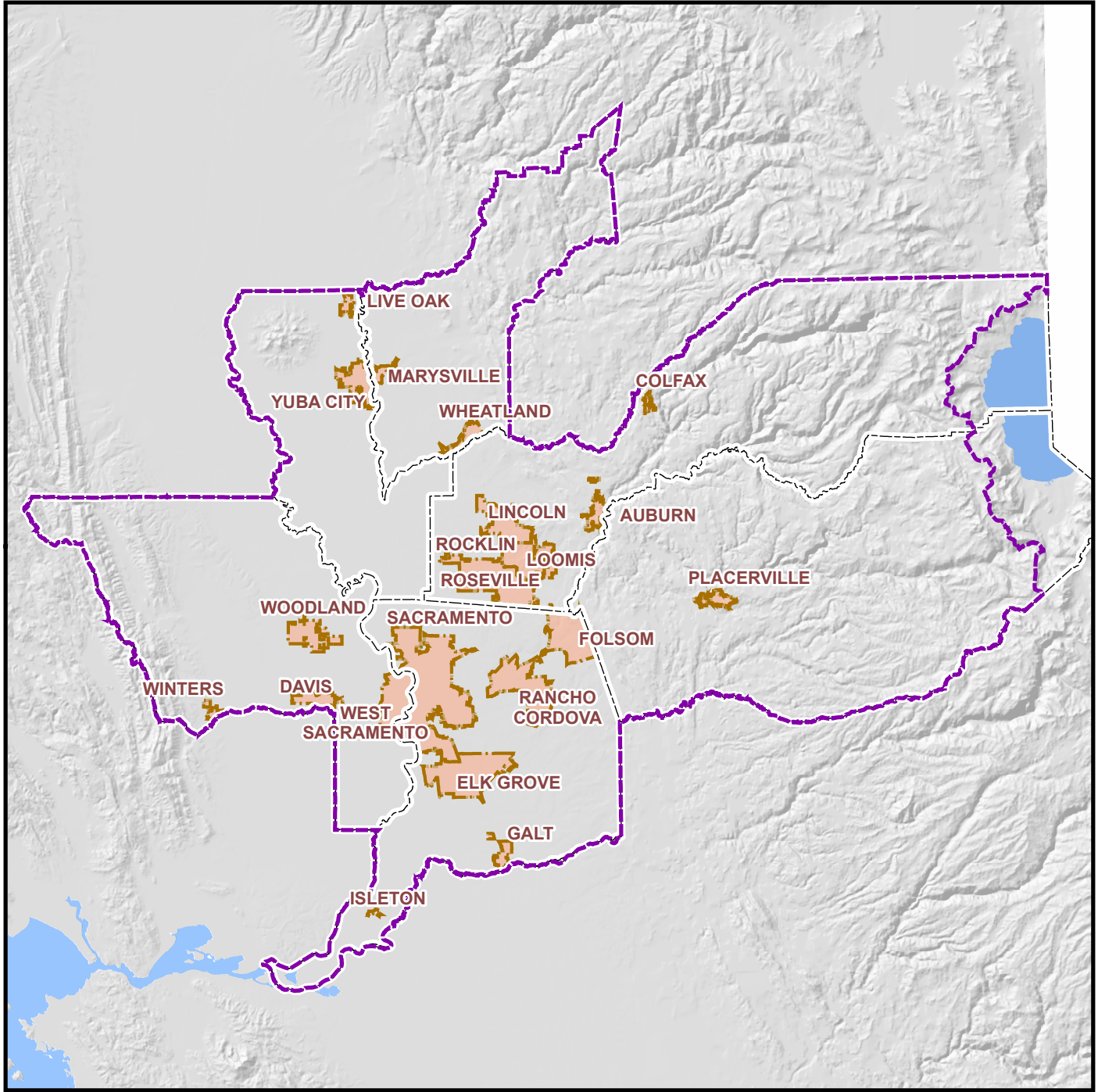
- Project Limits
- Census Block Groups
- Community Study Area






Service Layer Credits:
 ESRI, National Geographic, DigitalGlobe, GeoEye
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 Date: 8/30/2022

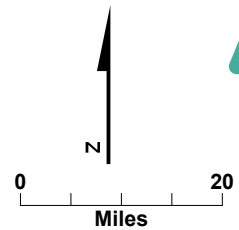
Figure 1-4
Community Study Area
 Yolo 80 Corridor Improvement Project
 EA 03-3H900
 Solano, Yolo, and Sacramento Counties,
 California

D:\AWE\2021-01-14-003_Yolo_CIA_VOL_80\MXD\Yolo 80_Figure 1-5 Regional Study Area_2022.mxd Revised: 2022-08-30 By: GIS 9-16



Legend

-  SACOG Planning Area
-  County Boundary
-  City Boundary



**Figure 1-5
Regional Study Area**

Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties,
California

Service Layer Credits:
ESRI, National Geographic, DigitalGlobe, GeoEye
Data Sources: CalTrans, Stantec, AWE, 2021-2022
Date: 8/30/2022

Chapter 2 Land Use

This chapter describes the existing and planned land uses in the Land Use Study Area, evaluates consistency of the Project with applicable land use plans and policies, and addresses land use development trends within these cities and counties. The chapter also evaluates existing parks and recreational facilities and farmlands in the Land Use Study Area that may be directly affected by the Project.

2.1 Existing and Future Land Use

The project is located in Solano, Yolo, and Sacramento Counties on the I-80/US-50 corridor, with a total project length of approximately 20.8 miles. Existing and future land uses for the Regional Study Area are described in the MTP/SCS.

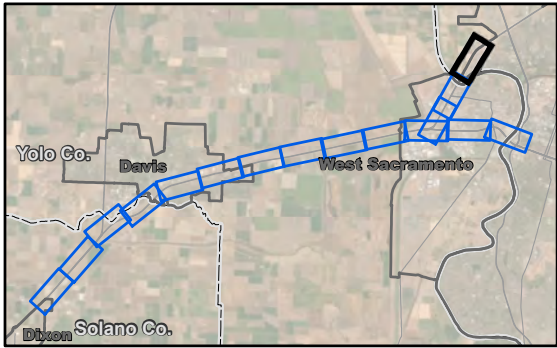
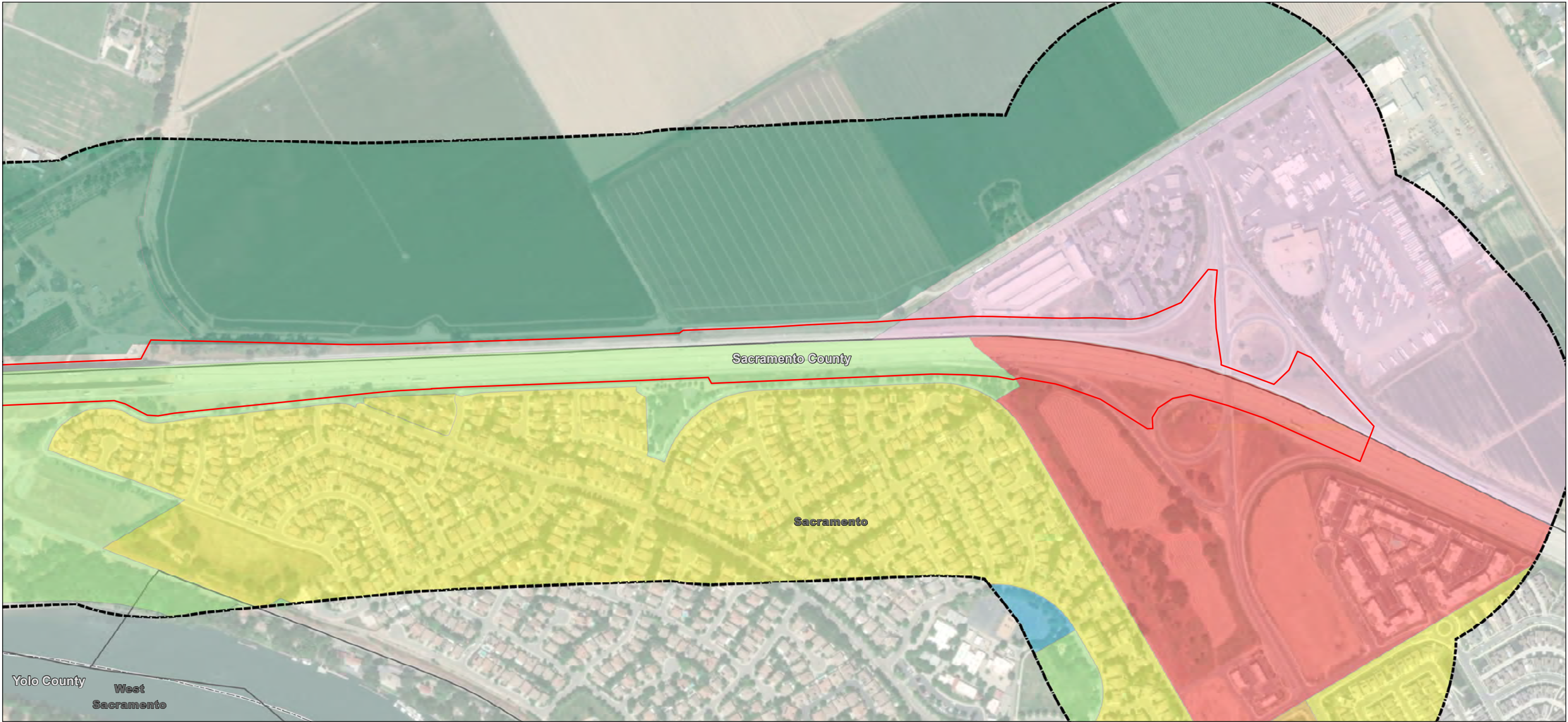
2.1.1 Affected Environment

The Land Use Study Area extends through multiple jurisdictions; therefore, there are various plans that guide development, land use, and transportation policies within the Land Use Study Area. Figures showing designated land uses within the Land Use Study Area are provided at the end of this chapter (Figure 2-1). Plans discussed below include the SACOG MTP/SCS, the City of Sacramento 2035 General Plan (City General Plan) (City of Sacramento 2015), the City of West Sacramento General Plan (City of West Sacramento 2016), the Yolo County General Plan (Yolo County 2009), the City of Davis General Plan (City of Davis 2007), the University of California, Davis (UC Davis) Long-range Development Plan (LRDP) (2018), the Solano County General Plan (Solano County 2008), the County of Sacramento General Plan (Sacramento County 2011), and specific plans in the Project area. It should be noted that the City of Sacramento is in the process of updating their general plan and anticipates adopting the 2040 General Plan in 2024. The land use analysis presented herein relies on the current City of Sacramento 2035 General Plan unless otherwise noted.

The western segment of the Land Use Study Area (Segment 1a, Figure 1-1) is within unincorporated Solano County, surrounded by agricultural and commercial land use designations. These agricultural areas are also mapped by Solano County with an Agricultural Reserve Overlay, as described further in Section 2.4.

Once I-80 crosses into Yolo County (Segment 1b), it is surrounded by the UC Davis campus, with land uses designated as public/quasi-public and agriculture. East of UC Davis, the Land Use Study Area passes through a mix of residential, industrial, open space, parks and recreation, mixed use, and commercial land uses in the City of Davis. It also passes through the City of Davis' Gateway Olive Drive Specific Plan (City of Davis 2018), which guides development in a 165-acre area north of I-80 near the Richards Boulevard Interchange.

D:\AWE\20-018-003_Yolo CJA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend



Project Limits

Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

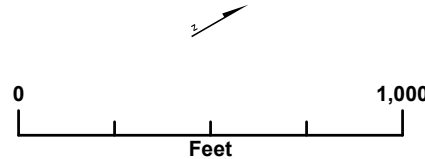


Public/Quasi-Public

Residential - High Density

Residential - Low Density

Residential - Medium Density

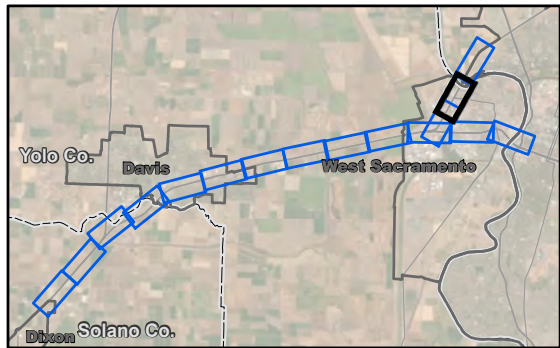
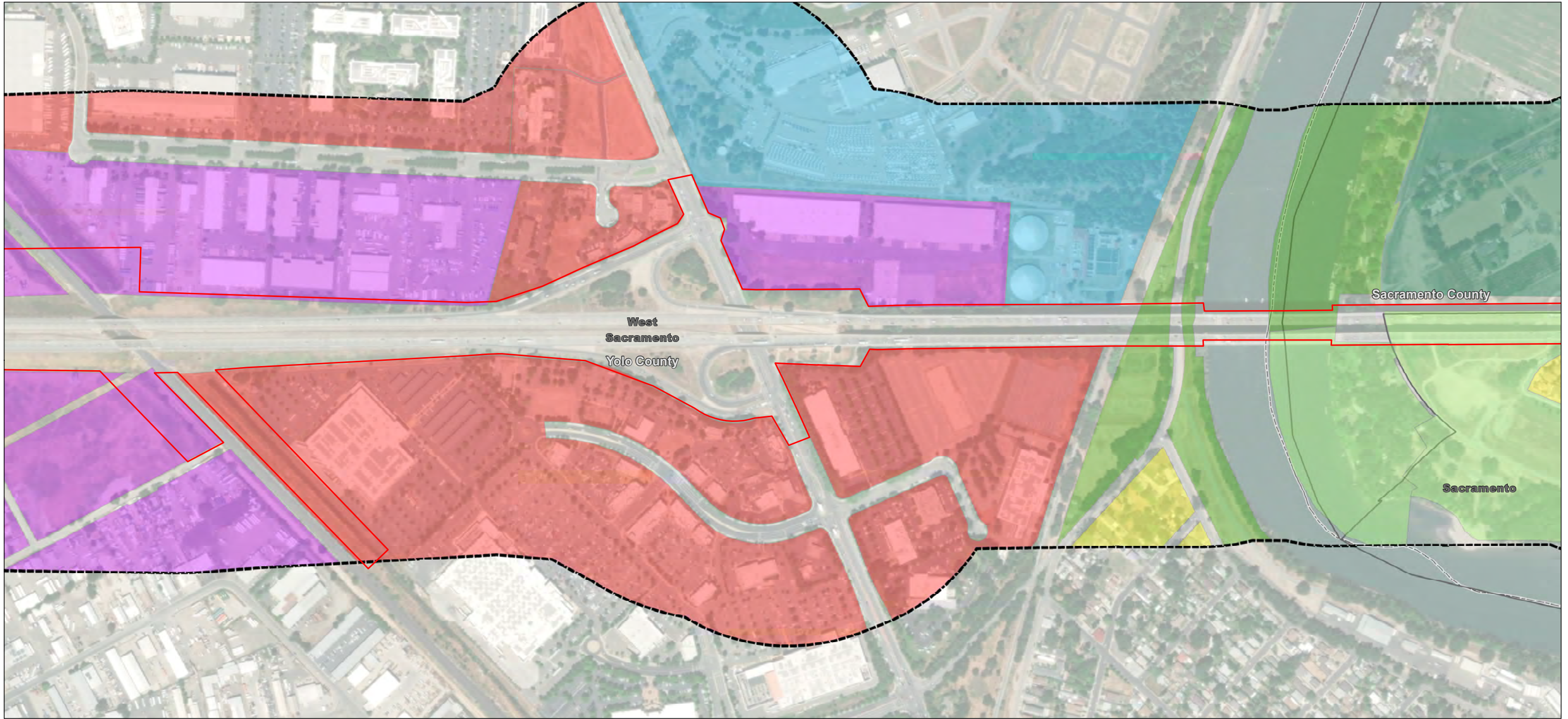


Sheet 1 of 16













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3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

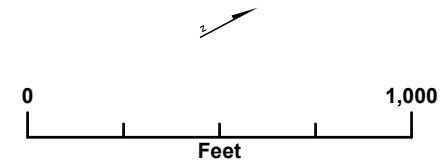
Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

D:\AWE\20-018-003_Yolo CJA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend

 Project Limits	 Agriculture	 Mixed Use	 Public/Quasi-Public
 Land Use Study Area	 Commercial/Employment	 Open Space	 Residential - High Density
	 Industrial	 Parks and Recreation	 Residential - Low Density
			 Residential - Medium Density

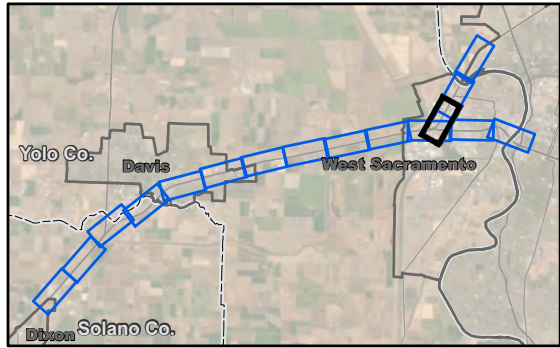
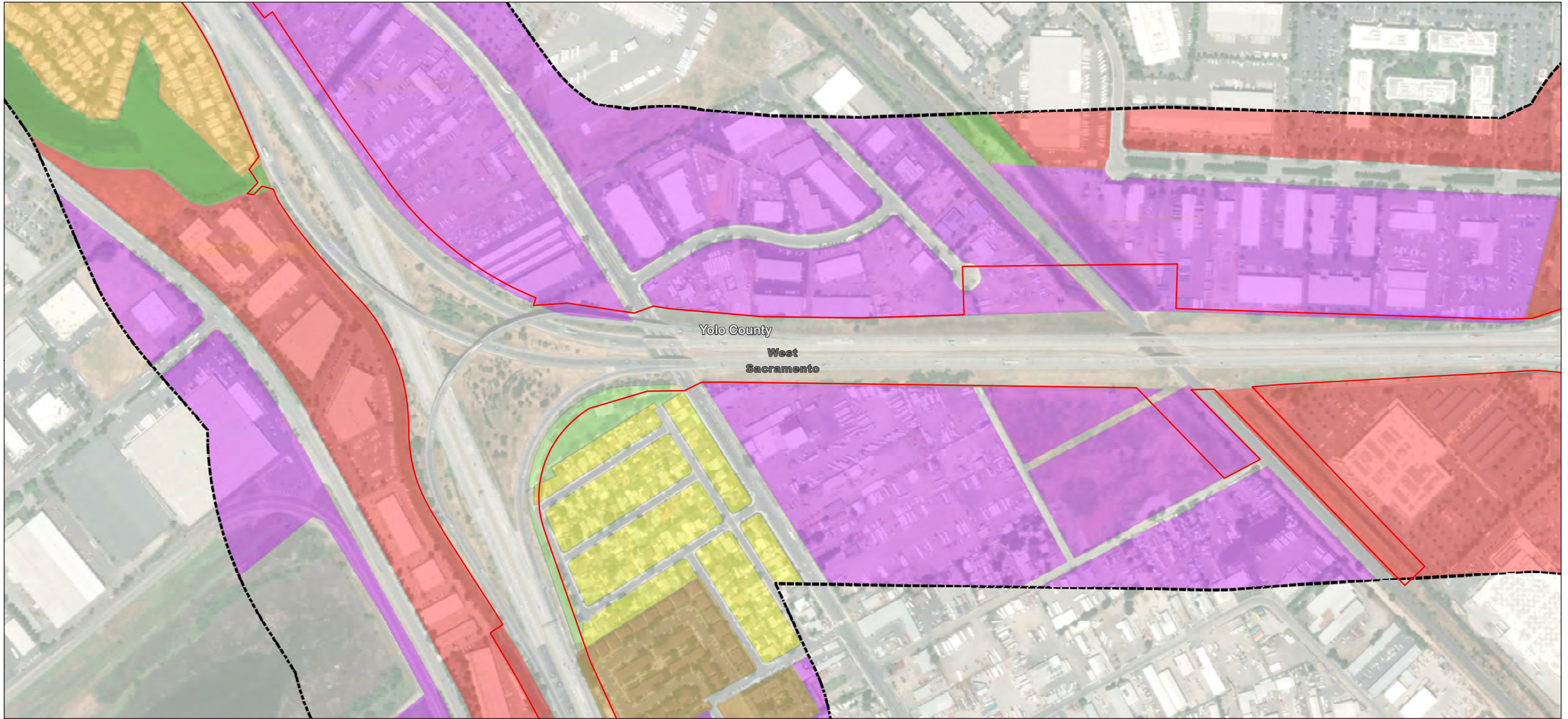


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, Area West, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend



Project Limits

Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

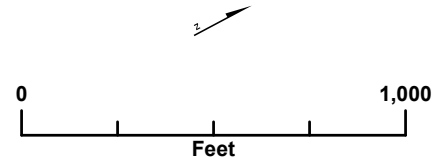


Public/Quasi-Public

Residential - High Density

Residential - Low Density

Residential - Medium Density

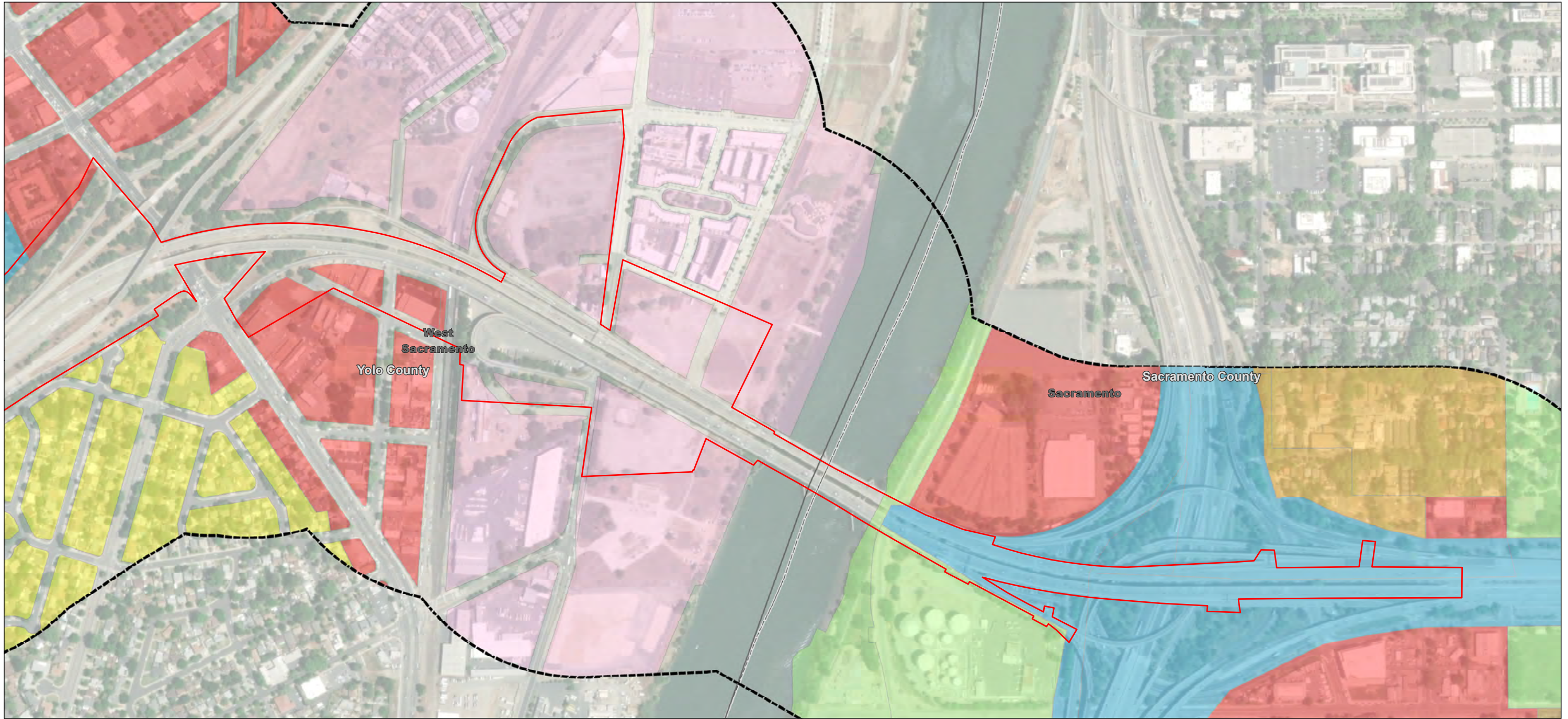


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

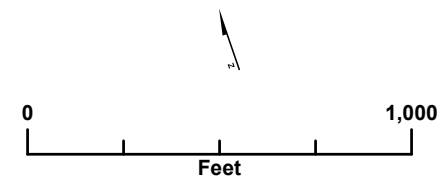
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Date: 8/26/2022

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend

Project Limits	Agriculture	Mixed Use	Public/Quasi-Public
Land Use Study Area	Commercial/Employment	Open Space	Residential - High Density
	Industrial	Parks and Recreation	Residential - Low Density
			Residential - Medium Density

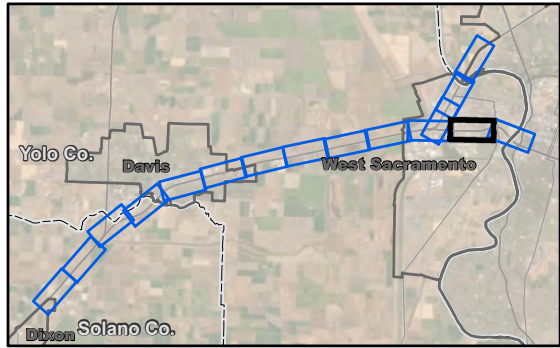
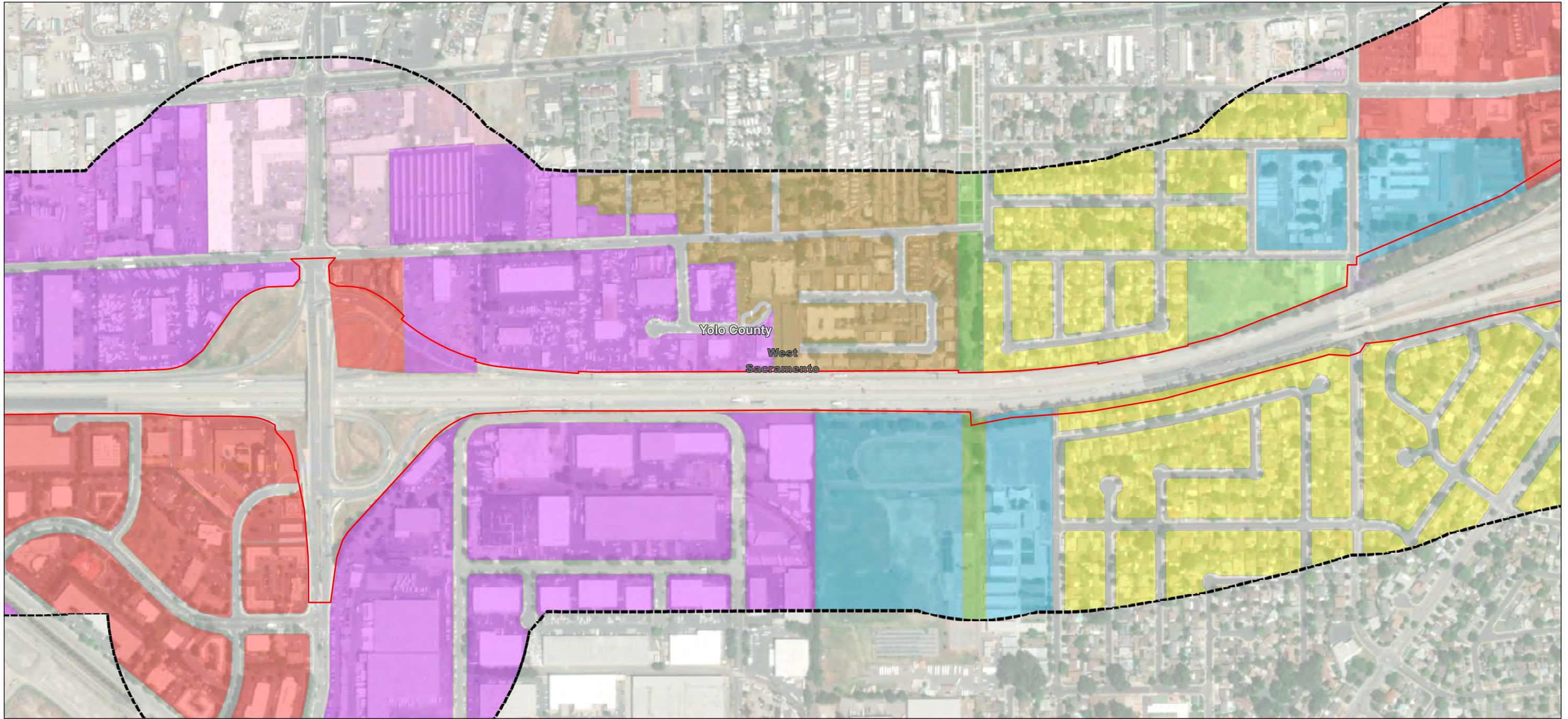


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
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2. Data Sources: CalTrans, Stantec, Area West, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



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1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, Area West, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

Legend



Project Limits

Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

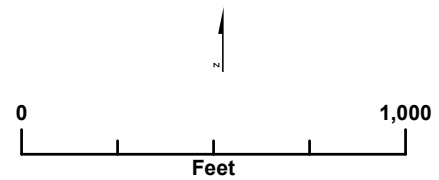


Public/Quasi-Public

Residential - High Density

Residential - Low Density

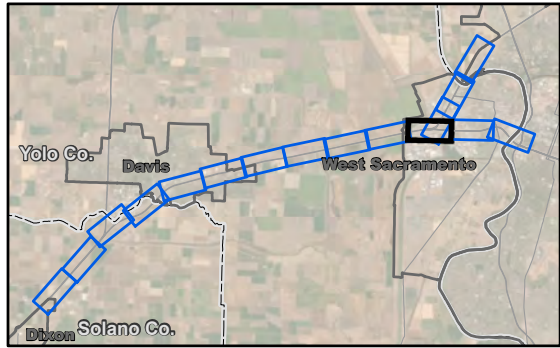
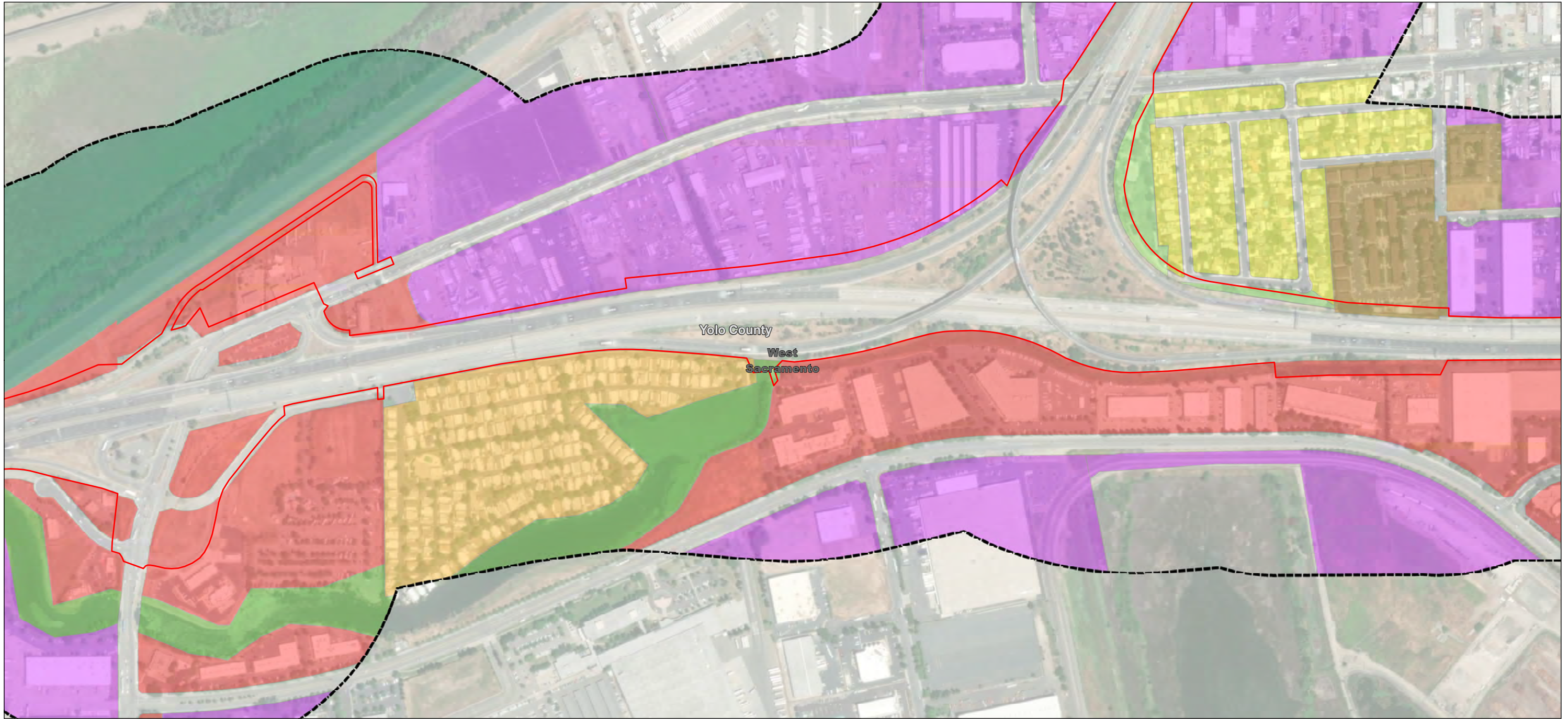
Residential - Medium Density



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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend



Project Limits

Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

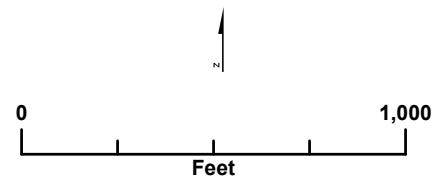


Public/Quasi-Public

Residential - High Density

Residential - Low Density

Residential - Medium Density

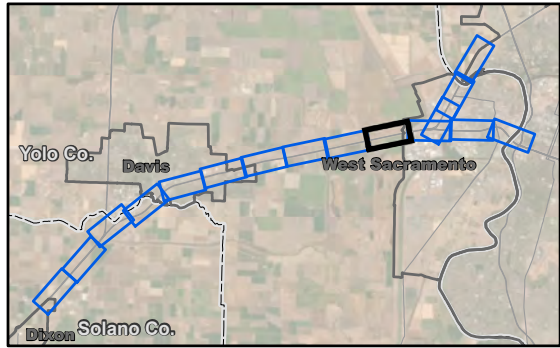


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California













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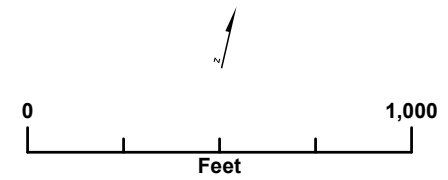
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1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
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Date: 8/26/2022

Legend

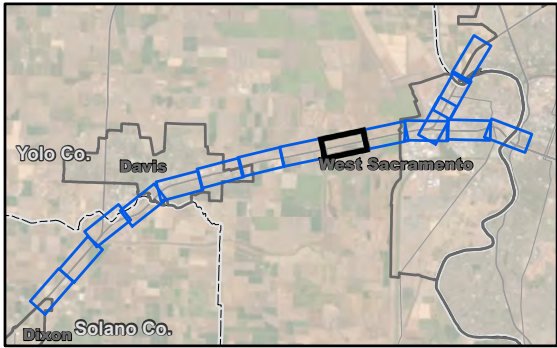
	Project Limits		Agriculture		Mixed Use		Public/Quasi-Public
	Land Use Study Area		Commercial/Employment		Open Space		Residential - High Density
			Industrial		Parks and Recreation		Residential - Low Density
							Residential - Medium Density



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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

D:\AWE\20-018-003_Yolo CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend



Project Limits

Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

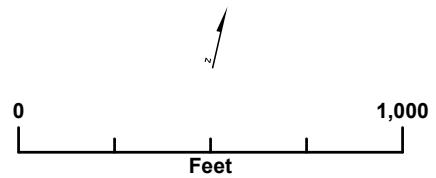


Public/Quasi-Public

Residential - High Density

Residential - Low Density

Residential - Medium Density

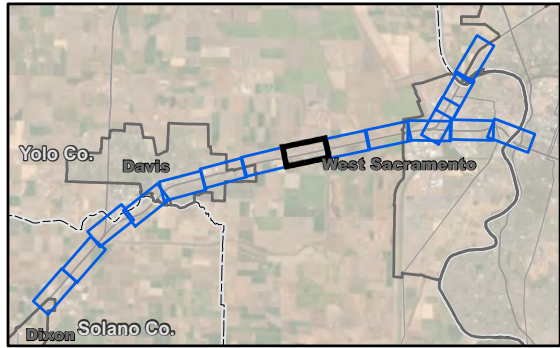
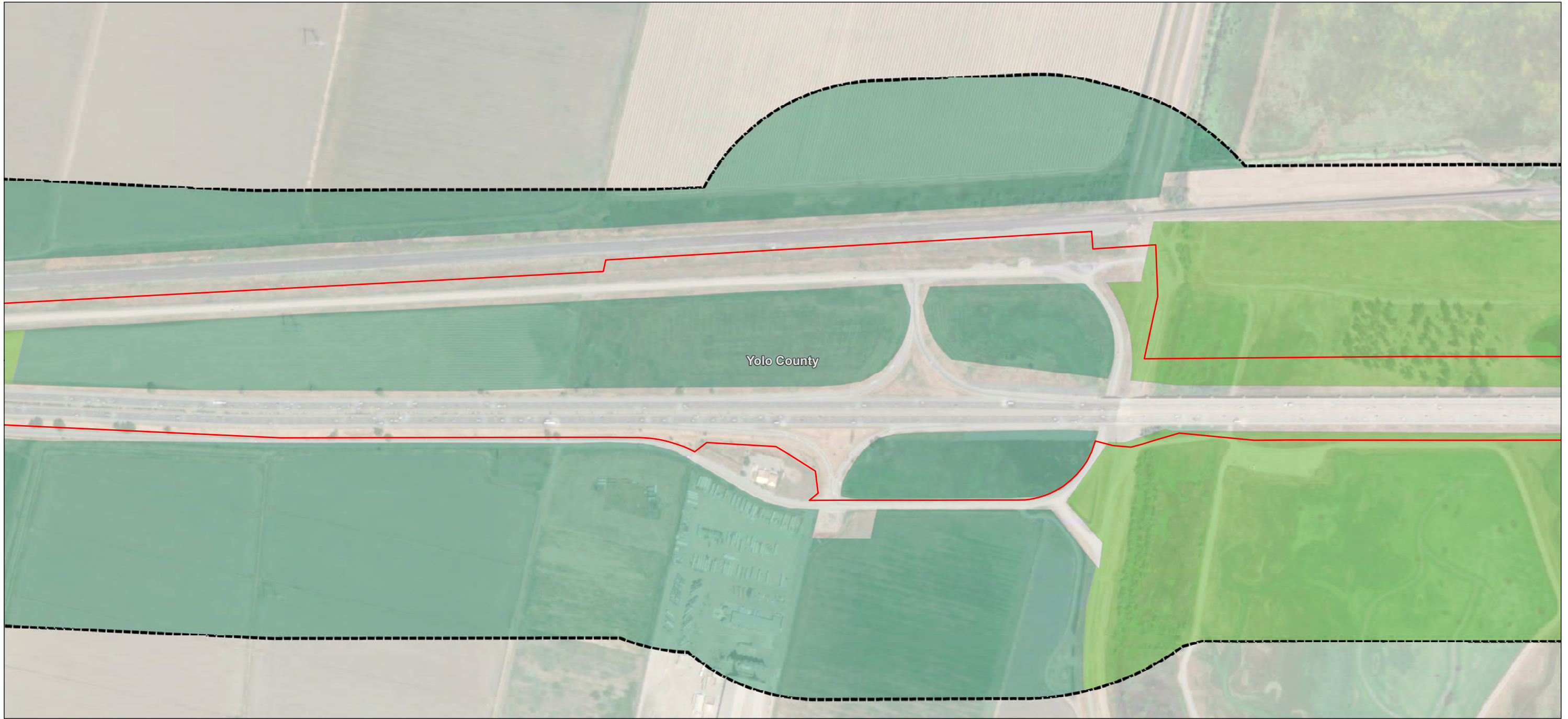


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, Area West, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo_80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Notes
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2. Data Sources: CalTrans, Stantec, Area West, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

Legend



Project Limits

Land Use Study Area



Agriculture



Commercial/Employment



Industrial



Mixed Use



Open Space



Parks and Recreation



Public/Quasi-Public



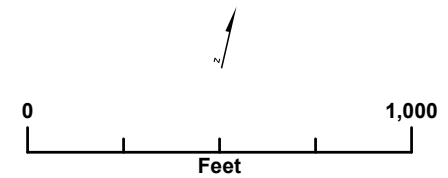
Residential - High Density



Residential - Low Density



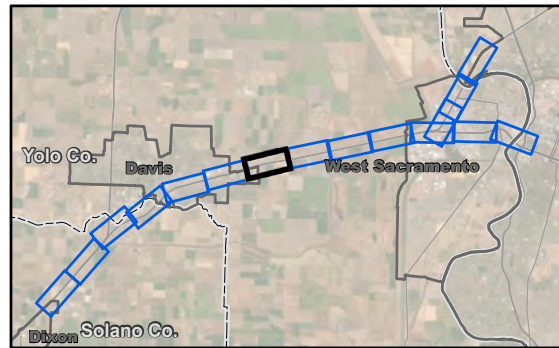
Residential - Medium Density















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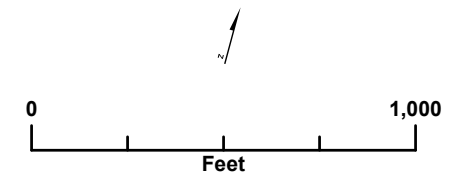
Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

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	Project Limits		Agriculture		Mixed Use		Public/Quasi-Public
	Land Use Study Area		Commercial/Employment		Open Space		Residential - High Density
			Industrial		Parks and Recreation		Residential - Low Density
							Residential - Medium Density

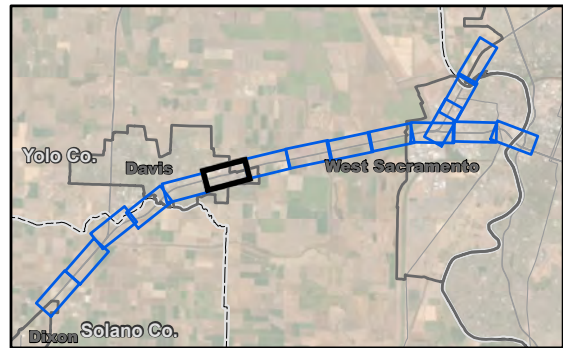
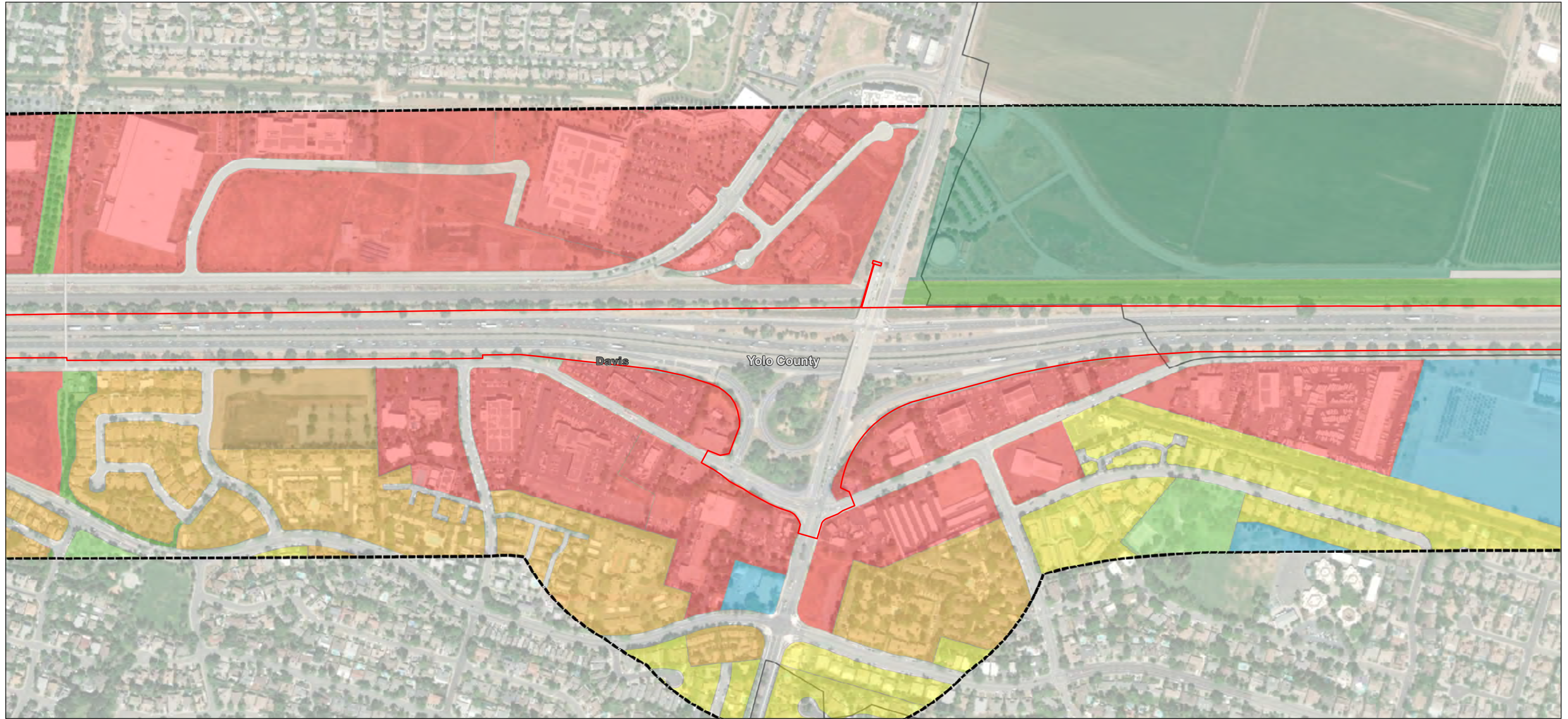


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California













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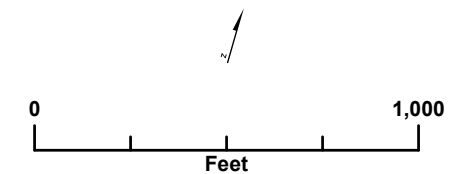
D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Notes
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3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/26/2022

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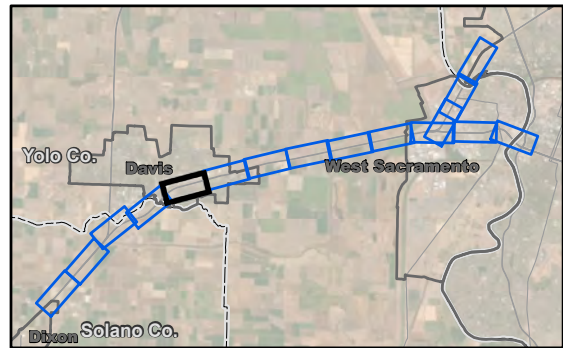
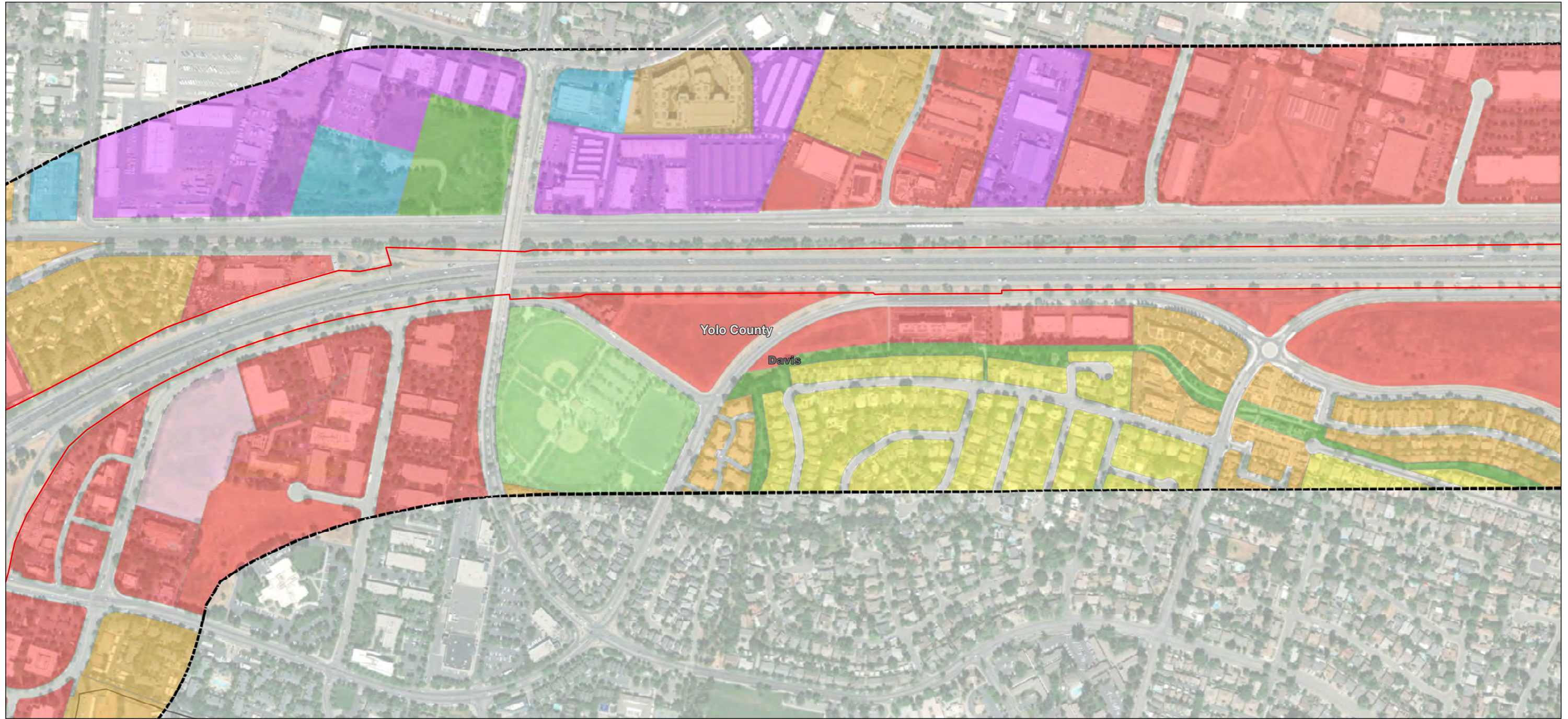
	Project Limits		Agriculture		Mixed Use		Public/Quasi-Public
	Land Use Study Area		Commercial/Employment		Open Space		Residential - High Density
			Industrial		Parks and Recreation		Residential - Low Density
							Residential - Medium Density



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






Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

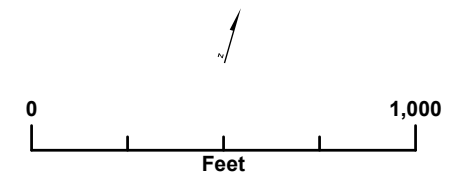
D:\AWE\20-018-003_Yolo CJA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



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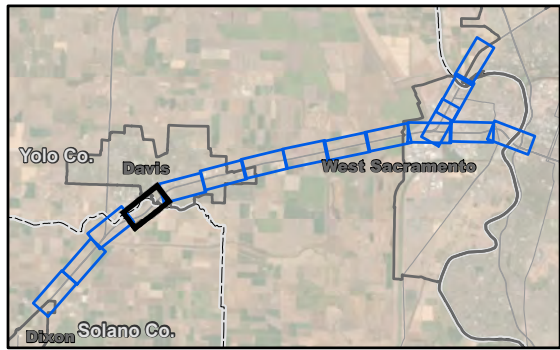
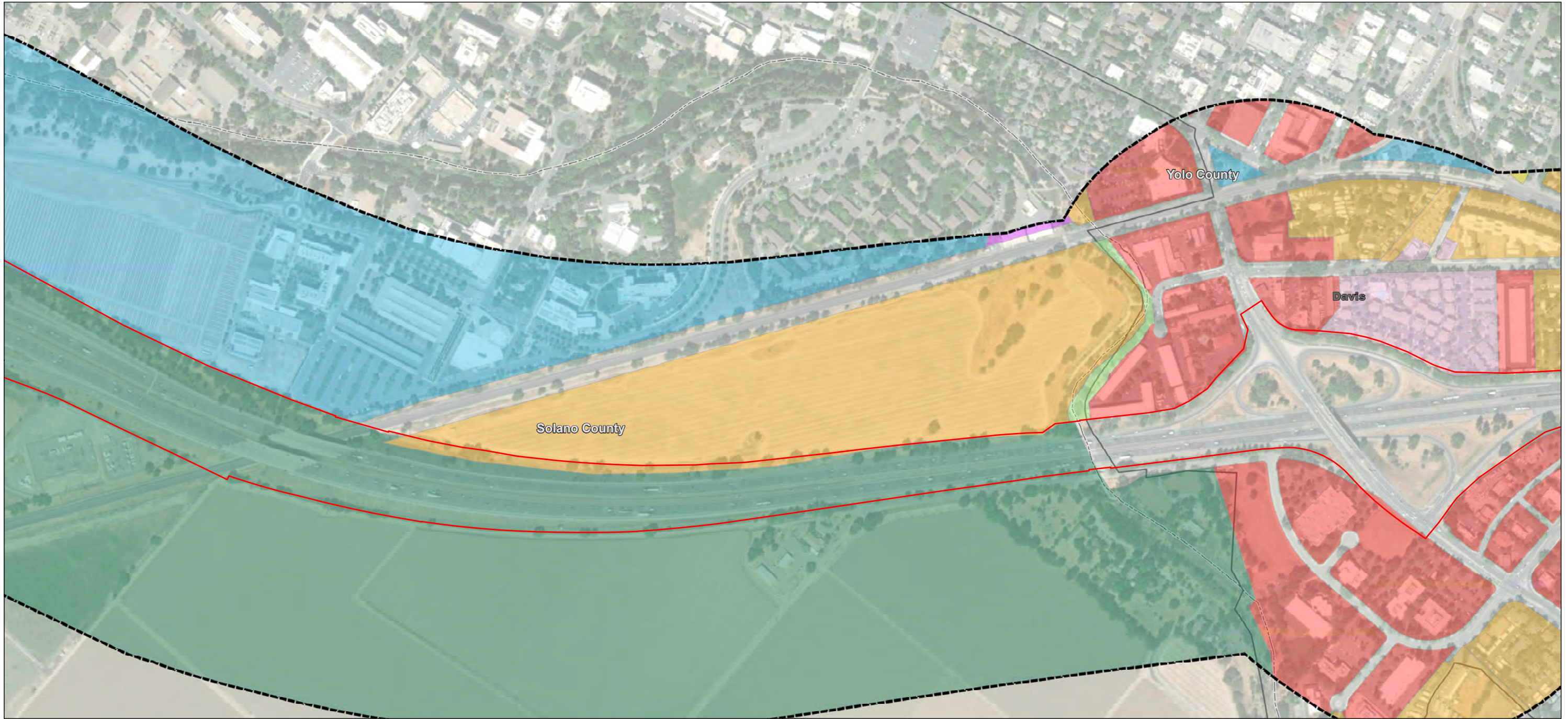
 Project Limits	 Agriculture	 Mixed Use	 Public/Quasi-Public
 Land Use Study Area	 Commercial/Employment	 Open Space	 Residential - High Density
	 Industrial	 Parks and Recreation	 Residential - Low Density
			 Residential - Medium Density



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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16

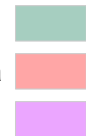


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Project Limits

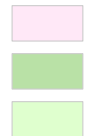
Land Use Study Area



Agriculture

Commercial/Employment

Industrial



Mixed Use

Open Space

Parks and Recreation

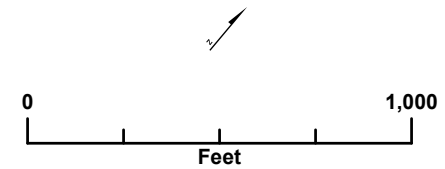


Public/Quasi-Public

Residential - High Density

Residential - Low Density

Residential - Medium Density

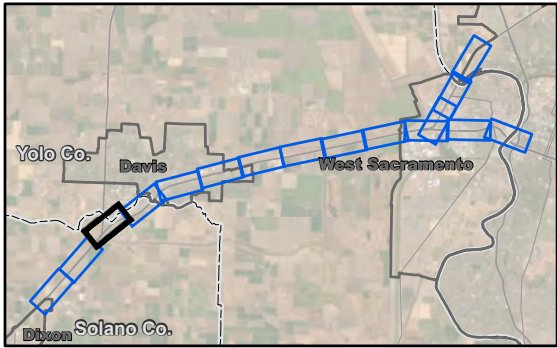
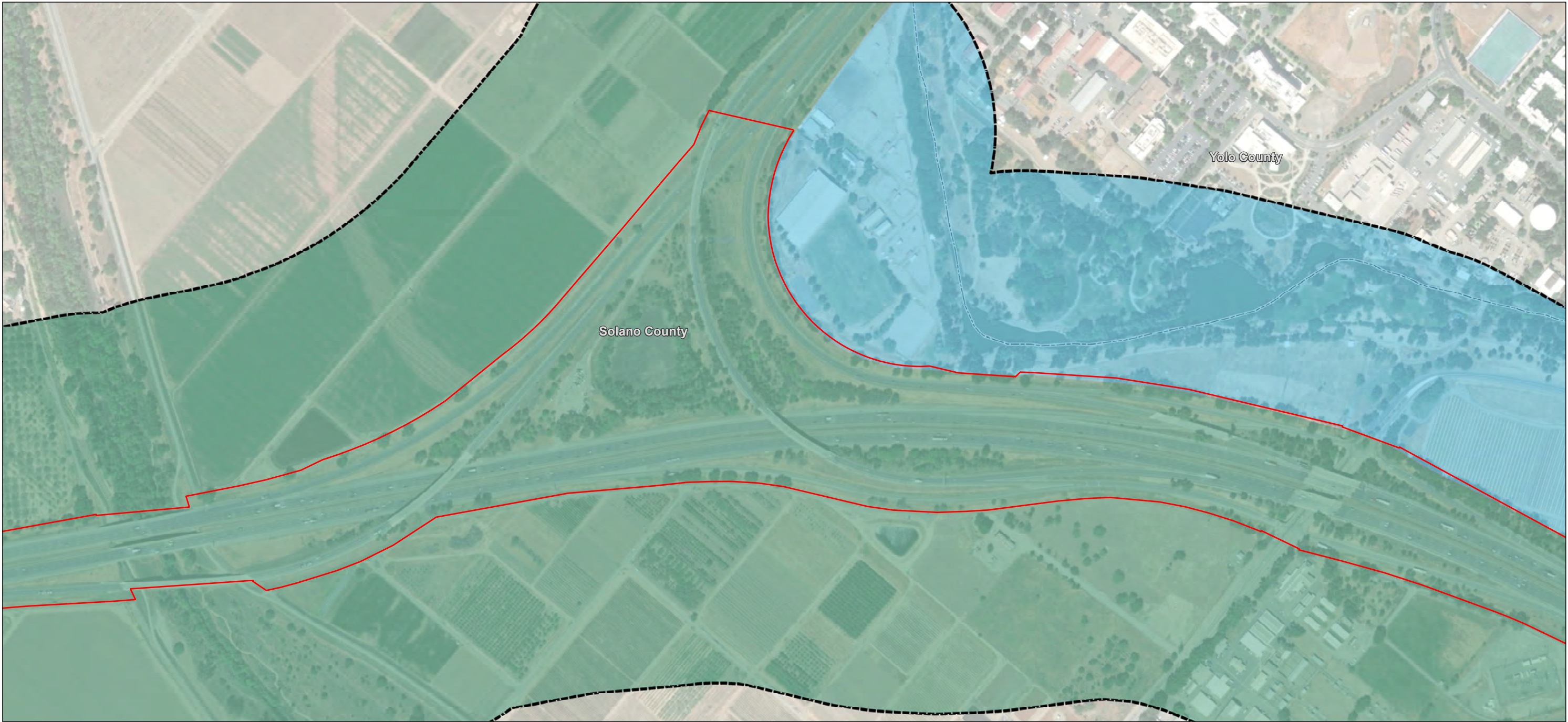


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

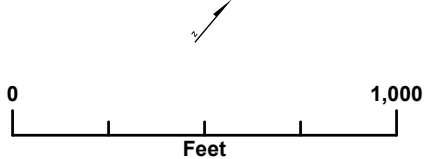
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D:\AWE\20-018-003_Yolo_CIA\Yolo_80\IMXD\Yolo_80_Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



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|---------------------|-----------------------|----------------------|------------------------------|
| Project Limits | Agriculture | Mixed Use | Public/Quasi-Public |
| Land Use Study Area | Commercial/Employment | Open Space | Residential - High Density |
| | Industrial | Parks and Recreation | Residential - Low Density |
| | | | Residential - Medium Density |

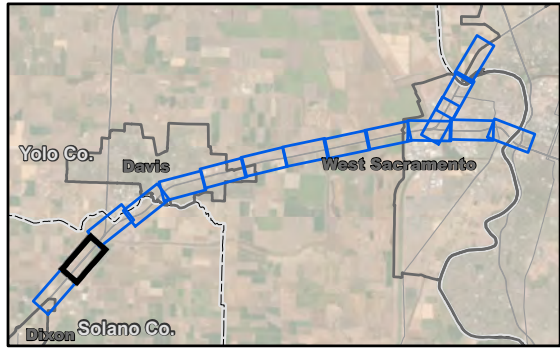
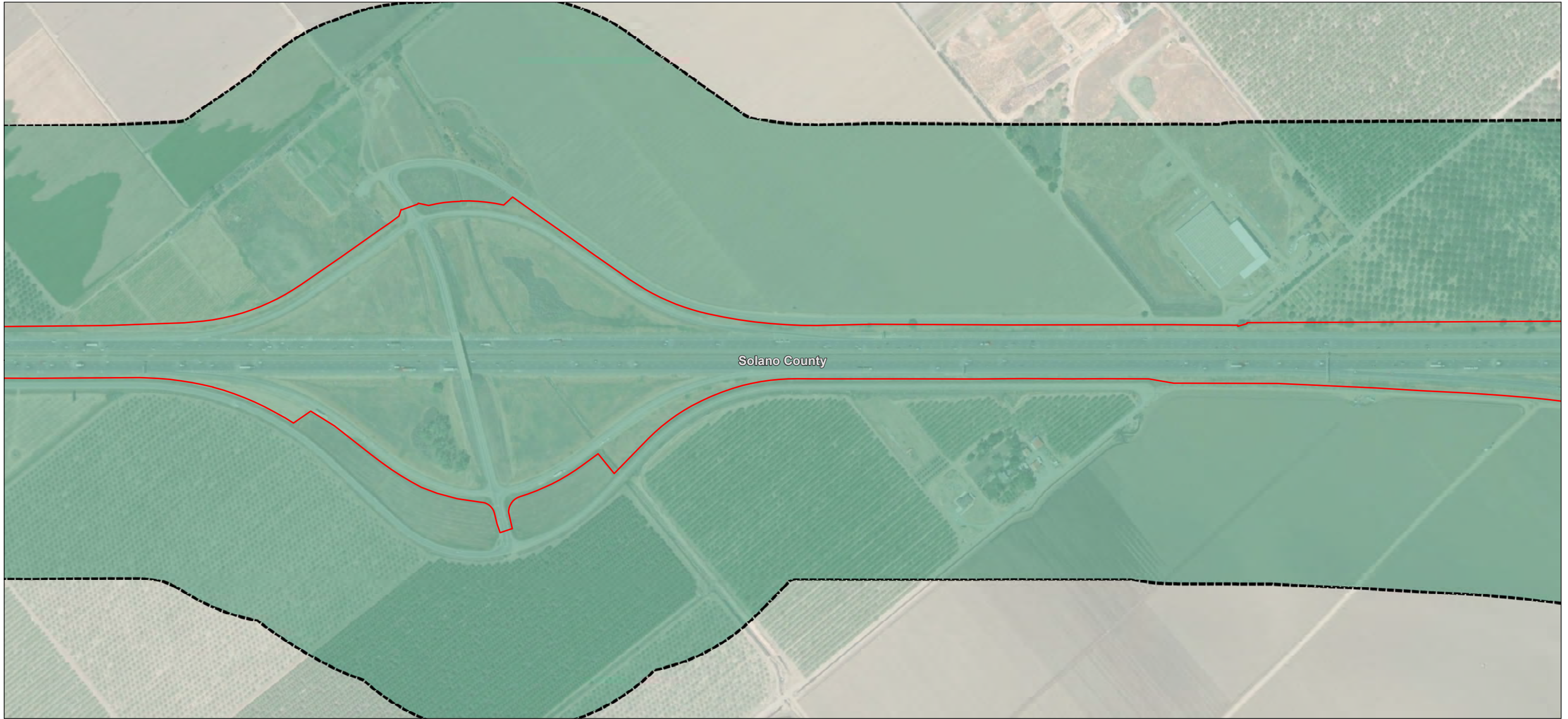


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

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D:\AWE\20-018-003_Yolo CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area_20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend



Project Limits

Land Use Study Area



Agriculture



Commercial/Employment



Industrial



Mixed Use



Open Space



Parks and Recreation



Public/Quasi-Public



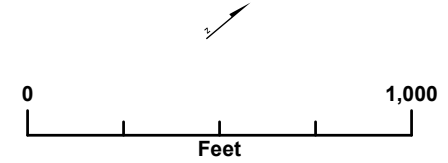
Residential - High Density



Residential - Low Density



Residential - Medium Density

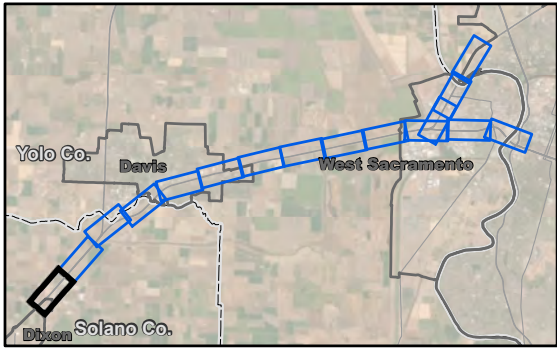
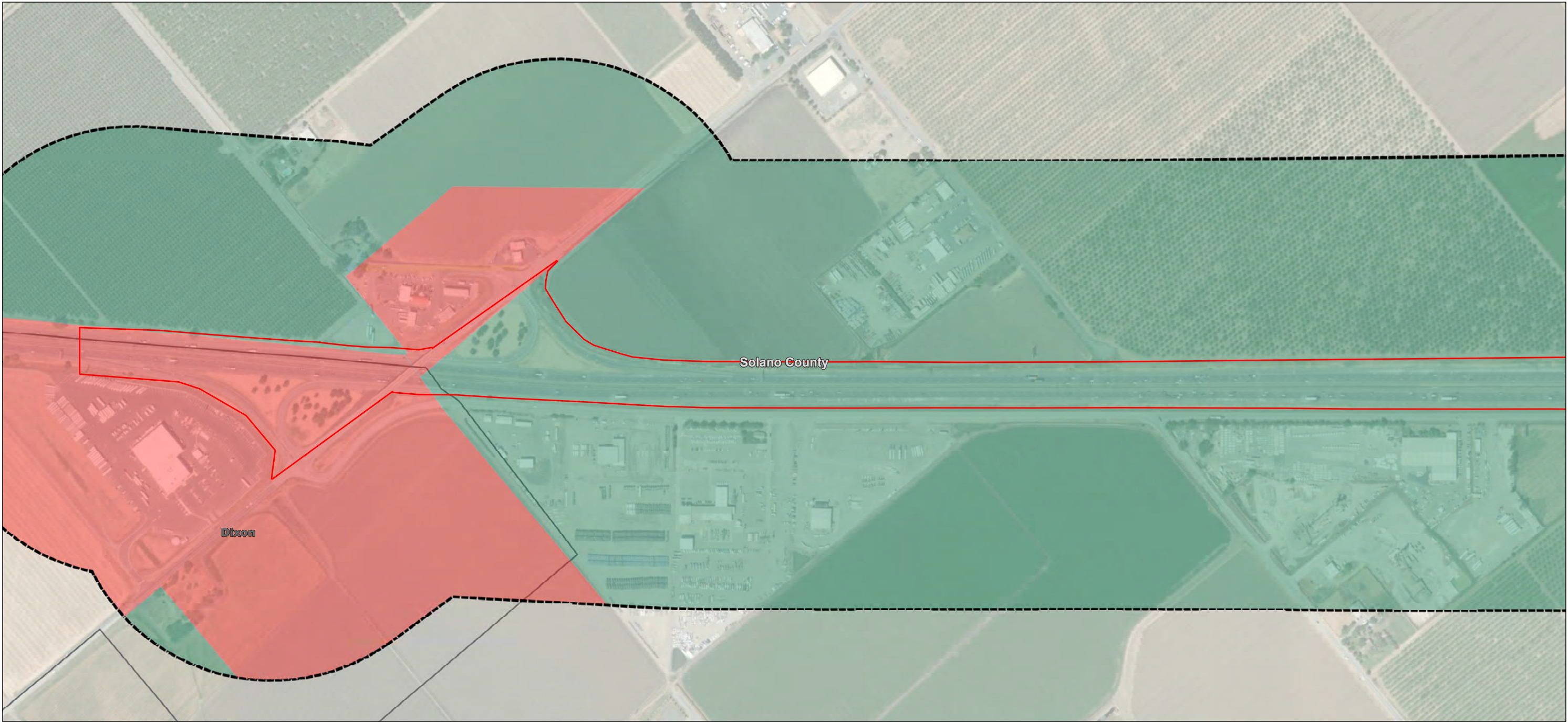


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Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
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D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 2-1 Land Uses in the Land Use Study Area 20220505.mxd Revised: 2022-08-26 By: GIS 9-16



Legend

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|---------------------|-----------------------|----------------------|------------------------------|
| Project Limits | Agriculture | Mixed Use | Public/Quasi-Public |
| Land Use Study Area | Commercial/Employment | Open Space | Residential - High Density |
| | Industrial | Parks and Recreation | Residential - Low Density |
| | | | Residential - Medium Density |



Figure 2-1
Land Uses in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
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East of the City of Davis (Segment 1c), I-80 crosses the Yolo Causeway, the elevated section of I-80 linking the cities of Davis and West Sacramento across the Yolo Bypass floodway. These portions of the Land Use Study Area are designated by Yolo County as agriculture and open space.

In West Sacramento, I-80 (Segment 2) passes through mostly commercial and industrial land uses, with some residential and public/quasi-public areas. After I-80 crosses the Sacramento River, the northeastern portion of the Land Use Study Area includes agricultural land uses within unincorporated Sacramento County, and residential, mixed use, and commercial areas within the City of Sacramento.

East of Harbor Boulevard, US-50 (Segment 3a) passes through residential, commercial, and mixed-use areas in the City of West Sacramento, including the Bridge District Specific Plan area, which provides the framework for mixed-use urban redevelopment area along the Sacramento River. After crossing the Pioneer Bridge over the Sacramento River, US-50 (Segment 3b) enters the City of Sacramento, with land uses designated as parks and recreation, commercial/ employment, public/quasi-public, and residential.

As described in Chapter 3, Growth, additional projects and developments in the broader region are within the existing and future I-80/US-50 “travelshed,” or larger geographic catchment. The baseline transportation and development improvement projects that are planned and proposed for locations within the Project area are listed in Table 2-1.

Table 2-1. Planned and Proposed Projects

Project Name (EA No.)	Project Description	Jurisdiction	Status
Yolo Pavement Rehabilitation (03-4F650 YOL-80, 50-Post Mile 4.3/11.4, 0.0/2.5)	<p>This project proposes constructing the median on the I-80 West Capitol Avenue Under Crossing (UC) and the I-80 Reed Avenue UC bridges to accommodate stage construction. Additionally, critical bridge locations within the corridor will be improved to upgrade deck surfaces, approach slabs, and slope paving. Median improvement will occur throughout most of the project to accommodate for stage construction. The median concrete barrier will remain in place at other locations, and the median restriped as part of the 3H900 project to provide one managed lane in each direction. New fiber-optic lines will be added throughout, along with some ramp metering and upgrades to other existing roadway features. These fiber-optic lines will improve the ITS monitoring capability within the corridor.</p> <p>This project also proposes to widen three structures along the median: (1) West Capitol Avenue Undercrossing (UC) (Yol 80 Post Mile 10.16), (2) Lake Washington Overhead (Yol 80 Post Mile 10.62), and (3) Reed Avenue UC (Yol 80 Post Mile 11.21).</p> <p>This project proposes to rehabilitate the Sacramento River Bridge and Overhead (Br.# 22-0026 L/R), on I-80 at the Yolo/Sacramento County Line in West Sacramento about three miles west of I-5: to include replacing the bridge rail, replacing the deck drain system, building barrier pedestals for future electroliers, and installing conduits.</p>	Caltrans District 3	Planned construction March 2023 to December 2027.
Sacramento River Bridge Overhead Bryte Bend Bridge Rehabilitation (03-0F250 YOL/SAC - 80-R11.1/R11.72, M0.00/M0.5)	This project proposes to rehabilitate the Sacramento River Bridge and Overhead, Br.# 22-0026L/R, on I-80 at the Yolo/Sacramento County Line in West Sacramento about 3 miles west of I-5. The project will rehabilitate the Sacramento River Bridge, OH, including replacing the bridge rail, replacing the deck drain system, building barrier pedestals for future electroliers, and installing conduits.	Caltrans District 3	Construction completed in January 2023.
US-50 ICM Infrastructure (03-3H330 SAC-50-80-Post Mile L0.0/17.5, 9.2/R9.522)	This project is on US-50 in and near the cities of Sacramento, Rancho Cordova, and Folsom, from the Yolo/Sacramento County line to Folsom Boulevard; and in Yolo County in West Sacramento along US-50, from the I-80/US-50 interchange to the Yolo/Sacramento County line (Post Mile 0.0 to 3.156), and on I-80 from Enterprise Boulevard to US-50 (Post Mile 9.2 to R9.552). Install TMS field elements.	Caltrans District 3	Planned construction September 2021 to December 2023.
Sac US-50 Design Build (03-0H08U Sac 50 Post Mile L0.20/R6.10)	This project will rehabilitate the roadway and construct managed lanes from the I-5 junction to Watt Avenue.	Caltrans District 3	Construction is anticipated to be complete in December 2024.

Project Name (EA No.)	Project Description	Jurisdiction	Status
SAC-5 Corridor Improvement Project 03-4H580 and SAC 50 HOV 03-3F360	This project would construct HOV lanes on US-50 from the existing HOV lanes at Watt Avenue to the Pioneer Bridge, connecting to the eastern limit of the proposed Managed Lanes project on I-80/US-50 (03-3H900).	Caltrans District 3	Construction is anticipated to be complete in December 2024.
Bretton Woods (formerly West Davis Active Adult Community Project)	The City of Davis is annexing Land from Yolo County and rezoning land from agricultural intensive to medium density residential, high density residential, residential greenspace overlay, urban agriculture transition area, and mixed use. This will pave the way for 325 single-family homes, 260 of which are for senior citizens, and an additional 150 are affordable senior apartments. The project also includes an approximately 3-acre activity and wellness center. The project is on a site north of Covell Boulevard and west of SR-113, at the intersection of Shasta Drive and West Covell Boulevard.	City of Davis	Project is currently undergoing planning review of the subdivision phases.
I-80/Richards Interchange Improvement Project (03-0H360 Sol 80 Post Mile 44.5/44.7 and Yolo 80 Post Mile 0.0/0.5)	The City of Davis, in cooperation with Caltrans, has completed a Project Study Report, Project Development Support that evaluates the safety and operational functions of the interchange at Richards Blvd. and I-80. The City of Davis proposes to reconfigure the westbound I-80 off-ramp and westbound I-80 on-ramp to a tight diamond; construct additional turn lanes to the eastbound I-80 on-ramp; eliminate the westbound I-80 slip off-ramp to Olive Drive; construct a two-way shared use path on the west side of Richards Boulevard that will pass under the westbound I-80 on-ramp from Richards Boulevard and cross over I-80.	City of Davis	Planned construction December 2023 to June 2025.
US-50 Metal Beam Guardrail Upgrade (03-1H870 US-50 Post Mile 0.0/3.0 and I-80 Post Mile 9.0/R10.7)	The project replaced the guardrail and placed vegetation control.	Yolo County	Construction completed December 2021.
Sac/Placer I-80 Fiber Optics (03-0H540 SAC Post Mile M0.3/18.0 and PLA Post Mile 0.0/0.7)	The project installed fiber-optic conduit, cable and pull boxes, replaced sign panels, transition railing, modified ramp metering systems along the I-80 median and eastbound I-80 outside shoulder, along westbound I-80 diagonal and loop on-ramps from West El Camino Ave, along eastbound I-80 off-ramp to West El Camino Real Ave and eastbound I-80 loop on-ramp from West El Camino Real.	Sacramento County	Construction completed August 2022.
Yol 80 Olive Drive Bike/Ped connection (03-4H260 Post Mile 0.841/0.851)	The project will construct a bike/pedestrian OC bridge from Olive Hill Lane to Pole Line RD. Closure of eastbound I-80 off-ramp to Olive Hill Road.	City of Davis	Planned construction January 2021 to June 2023.

Project Name (EA No.)	Project Description	Jurisdiction	Status
Yol 80 Davis 80 Rehabilitation project (03-2J260 Post Mile 0.0/4.40)	The project will remove portion of pavement and replace it with RHMA-G and RHMA-O on I-80 mainline and Mace Blvd ramps. Additionally, will upgrade Mace Blvd drainage facilities, metal beam guardrail, crosswalks, ADA ramps and pedestrian push buttons. Install HOV ramp metering systems at Mace Blvd eastbound on-ramps to I-80. Project Initiation Document was signed December 2022.	City of Davis	Planned construction May 2027 to May 2028.
Sac I-5/US-50 Interchange Painting (03-1H100 Sacramento River Viaduct (Pioneer Bridge) to 4th Street; and I-5 Post Mile 22.15/22.91)	This project painted the interchange on Sacramento River Viaduct and on I-5.	City of Sacramento	Construction was completed February 2023
UC Davis Long Range Development Plan (LRDP)	The UC Davis Long-range Development Plan (LRDP) (2018) provides the growth policies for the main Davis campus and Russell Ranch research lands, totaling about 5,300 acres in Yolo and Solano Counties. The LRDP forecasts increases in student enrollment, employment (faculty and staff), campus student housing, and academic building space. On-campus population could grow to a population of 21,200, which is approximately 1,481 over the 2010 LRDP projection. Growth up to 7.07 million gross square feet.	UC Davis	The LRDP and associated EIR were approved and certified in 2018.
Sycamore Trail Pedestrian Overcrossing (03-3H840)	The City of West Sacramento plans to construct a trail and pedestrian crossing over US-50 that will extend south from the newly developed pedestrian and bicycle trail at Joseph "Joey" Lopes Park to Westmore Oaks Elementary School. The project site is located between Evergreen Avenue and Stone Boulevard along the Sacramento Regional County Sanitation District lower northwest interceptor sewer easement. The width of the overcrossing would be either 16 or 22 feet.	City of West Sacramento	Planned construction March 2023 to April 2024.

Project Name (EA No.)	Project Description	Jurisdiction	Status
Yolo Rail Realignment Project	<p>The Yolo Rail Realignment Project proposes to relocate the existing rail access from the Union Pacific Railroad Mainline from its current alignment along the eastern edge of West Sacramento to a new location west of the I-80/US-50 split. The project will allow for the West Sacramento riverfront to fully realize its redevelopment potential, alleviate significant traffic impact from the existing freight rail alignment, and provide for the opportunity to expand freight rail service to West Sacramento's industrial areas with minimum community impact.</p> <p>It has been proposed to combine a new railroad overhead under I-80, as part of the combined projects 03-4F650 and 03-3H900 between the Yolo Causeway and Enterprise Boulevard to tie into existing tracks leading to/from the Port of West Sacramento. The practicality of this project will be discussed further during the environmental phase. The Port of West Sacramento will provide plans, specifications, and an estimate for the railroad overhead. Any exchange of services with the Port of West Sacramento will require cooperative agreement.</p>	City of West Sacramento	Planning Phase
County Road 32A Crossing	CR-32A to improve bike path connectivity between CR-105 (just east of Davis) and the western terminus of the proposed new Class I bicycle/pedestrian facility of the Managed Lanes Project (03-3H900) that will connect with CR-32A, just west of the westbound CR-32A Off-Ramp. The County recently completed a Project Study Report and is seeking funding for this project.	Yolo County	Planning Phase
Bridge Preventive Maintenance on Route 505 at Horse Creek Bridge and on Route 80 at McCune Creek Bridge	In and near Vallejo, Dixon, and Vacaville, at I-80/SR-29 Separation Bridge (No. 23-008), McCune Creek Bridge (No. 23-0084L/R) and Horse Creek Bridge (No. 23-0077L). Bridge preventative maintenance.	Caltrans District 4 SHOPP Projects	Environmental analysis completed in December 2020.
SOL-80; 2020 Rehabilitate pump elements and controls State Highway Operation and Protection Plan (SHOPP) (0J600)	In and near Vallejo, Dixon and Vacaville, at I-80/29 Separation Bridge No. 23-0087, McCune Creek Bridge No. 23-0084L/R and Horse Creek Bridge No. 23-0077L. Bridge preventative maintenance.	Caltrans District 4 SHOPP Projects	Construction date: 2021-2022
SOL-Var. 2020 SHOPP (0P760)	In Solano County on various routes (SR 37, 80, and 780) at various locations—Install Rectangular Rapid Flashing Beacons.	Caltrans District 4 SHOPP Projects	Anticipated construction date: 2022/2023
SOL-VAR; 2020 SHOPP	Install best management practices (stormwater mitigation) at SR 37, 80, 780, 101, and 121.	Caltrans District 4 SHOPP Projects	Anticipated construction date 2023/2024

Project Name (EA No.)	Project Description	Jurisdiction	Status
SR 13/I-80 Pump Project 2020 SHOPP	Rehabilitate pump elements and controls at SR13 North/I-80 Separation (Pump ID 23-0185W)	Caltrans District 4 SHOPP Projects	Anticipated construction date 2022/2023
Mace Boulevard Corridor Project	Addition of green bicycle lane conflict markings where each westbound freeway ramp intersects with Mace Boulevard. Provision of bicycle intersection crossing markings at the signalized intersection of the I-80 westbound ramps and Mace Boulevard and addition of green bike lane conflict markings where each eastbound freeway ramp intersects with Mace Boulevard.	City of Davis	Planning phase
Jefferson Boulevard interchange area	Addition of Class II bicycle lanes. The pavement on Jefferson under the US-50 interchange structure was not widened for bicycle lanes. The pavement was recently rehabilitated as part of the West Capitol Avenue Safety Enhancement and Road Rehabilitation project.	City of West Sacramento	Project construction complete.
S. River Road interchange area	The widening of 5 th Street for Class II bicycle lanes through the US-50 interchange area will be constructed as part of the Riverfront Street Extension / Fifth Street Widening project.	City of West Sacramento	Construction began in 2022.

2.1.2 Environmental Consequences

The Project would add managed lanes on I-80/US-50 by widening the existing roadway through a combination of lane conversion, restriping, shoulder widening, and median reconstruction with a concrete barrier. While there would be some widening of or replacement of existing structures within the Project area, nearly all Project work would occur within the existing Caltrans ROW and would not result in any direct changes to land use adjacent to the Project area. Under all Build Alternatives, there would be some TCEs and staging outside of the Caltrans ROW.

Indirect changes to land use can include changes in development patterns, rates, and densities, which may be influenced by changes in traffic patterns and highway capacity. The rate and location of regional growth and land use change can be influenced by travel time and travel cost for residents and workers. Improvements in access, traffic conditions, and lower travel costs can influence the attractiveness of some areas over others for future development. Chapter 3, *Growth*, addresses the influence of the Build Alternatives on local and regional growth and related land use changes.

2.1.2.1 Build Alternatives

Build Alternatives 2 through 6 would add one lane in each direction by expanding into the center median and other areas within the Caltrans ROW. Build Alternatives 2 through 7 include a “b” alternative that would construct an I-80 connector ramp. The connector ramp under the “b” alternatives would be entirely within the Caltrans ROW; therefore, it would not affect surrounding land use.

Build Alternatives 2 through 7 would also require one small area of permanent ROW acquisition in the City of West Sacramento for the construction of a Park-and-Ride Facility. The area of proposed permanent ROW acquisition for the Park-and-Ride Facility is currently undeveloped, vacant land. No displacement of any residences or businesses would be required for this facility. The Park-and-Ride Facility would be constructed on the east side of Enterprise Boulevard in a 4.5-acre lot designated for Highway-Service Commercial uses and would provide for 300 parking spaces. A Park-and-Ride Facility is consistent with the Highway-Service Commercial land use designation, so there would be no adverse effect on current and future land use for surrounding properties.

Build Alternatives 2 through 7 include the proposed extension of the Yolo Causeway Class I bicycle path along the westbound off-ramp alignment to connect with CR-32A. This work would be completed in coordination with Yolo County, would be entirely within the Yolo County ROW, and would be performed through an encroachment permit acquired by Caltrans from Yolo County.

Build Alternatives 2 through 6 would add lanes by expanding into areas that are already designated for roadway purposes and would include one area of permanent acquisition, which is undeveloped, would not require displacement of residences or businesses, and would be compatible with designated land uses.

Build Alternative 7 would have similar effects as Build Alternatives 2 through 6 but would not expand into the center median or add new travel lanes. Build Alternative 7 Repurpose HOV2+ would not change the overall number of lanes in the Project area and there would be no changes to the existing sidewalks or bicycles lanes.

Under all Build Alternatives, there would be no direct effect on land use in the Land Use Study Area.

Refer to Chapter 3, Growth, for a discussion of potential land use changes associated with regional development and growth and the Build Alternatives.

2.1.2.2 No-Build Alternative

Under Alternative 1 (No-Build) there would be no change from existing conditions. Therefore, there would be no effect on land use in the Land Use Study Area.

2.1.3 Avoidance, Minimization, and/or Mitigation Measures

All Build Alternatives would occur primarily within the existing Caltrans ROW. Alternatives 2 through 6 would primarily widen the highway footprint to the center median; these alternatives would not substantially change the traffic mix. Therefore, there would be no permanent direct effect on land use, and no avoidance, minimization, and/or mitigation measures are needed. Refer to Chapter 3, Growth, for a discussion of potential land use changes associated with regional development and growth and the Build Alternatives.

2.2 Consistency with State, Regional, and Local Plans

This section identifies state, regional, and local plans and programs, and describes how the Project would be consistent with or conform to relevant plan and program elements.

2.2.1 Affected Environment

The segments of the I-80/US-50 corridor in the Project area extend through multiple jurisdictions and therefore are subject to the policies of several plans and programs that guide development and transportation policies within the Land Use Study Area. Segment 1a (Figure 1-1) is within an unincorporated portion of Solano County. Portions of Segment 1b pass through the City of Davis. Segments 1b and 1c pass through an unincorporated portion of Yolo County. Segments 2, 3a, and 3b pass through the City of West Sacramento within Yolo County. The eastern portions of Segment 2 and Segment 3b are with the City of Sacramento. Regional and local plans discussed below include the SACOG MTP/SCS, the Solano County General Plan, City of Davis General Plan, UC Davis 2018 Long Range Development Plan, Yolo County General Plan, City of West Sacramento General Plan, City of Sacramento General Plan, and Sacramento County General Plan.

2.2.1.1 SACOG 2020 MTP/SCS

The 2020 MTP/SCS prepared by SACOG serves as a transportation and land use strategy for the SACOG Planning Area. The overall focus for the 2020 update is directed at developing strategies to support access to jobs and economic opportunity, transportation options, and affordable housing in a manner that improves air quality, preserves open space, and reduces greenhouse gas (GHG) emissions. SACOG is looking at Caltrans-managed lane projects to lead efforts at transportation revenue and pricing. SACOG sees pricing mechanisms as a critical component of the regional strategy to raise revenue sufficient to build and maintain the region's transportation system, provide mobility benefits to residents, manage traffic and congestion, and help to achieve the state-mandated GHG reduction targets.

The MTP/SCS sets forth the following objectives and policies that are applicable to the Project:

Objective: Modernize the way we pay for transportation infrastructure.

- **Policy 12:** Take steps to implement tolling or pricing of specific lanes on major facilities, such as freeways, to improve traffic management, reliability, and operations of those facilities and to help raise funding for the cost of building and maintaining large capital investments.
- **Policy 13:** All new major expansion projects on the region's freeways and expressways should be planned for eventual deployment of pricing options to both manage demand and provide a financing mechanism for capital costs. Any pricing strategy pursued should be sensitive to changes in roadway demand during different parts of the day (peak/off-peak) with the objective of managing demand and providing travel choice.

- **Policy 14:** Revenues generated from facility-based pricing should be used to build and maintain a regional network of paid express lanes and, where surplus revenue is available, on strategic transit services (e.g., express buses) or other mobility solutions that can reduce vehicle miles traveled (VMT) and provide multiple travel options along priced corridors.
- **Policy 16:** When implementing pricing strategies, both paid express lanes and mileage-based fees/PayGo, the region should make every effort to avoid negatively affecting lower-income and rural households. For regional implementation of PayGo, explore innovative options for setting fees, such as including offsetting incentives for non-vehicular travel, offsets to fees for disadvantaged households, and keying fee rates to maintenance and fix-it-first goals.

Objective: Build and maintain a safe, resilient, and multimodal transportation system.

- **Policy 18:** System expansion investments that are not directly paid for by new development should be focused on fixing major bottlenecks that exist today, and/or incentivize development opportunities in infill areas.
- **Policy 22:** Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- **Policy 23:** Prioritize and incentivize transportation investments that benefit environmental justice communities.
- **Policy 24:** Invest in transportation improvements that improve access to major economic assets and job centers.

2.2.1.2 Solano County General Plan

A small part of the Project area is located within an unincorporated portion of Solano County, largely within an area characterized by agricultural land use. The Transportation and Circulation chapter of the Solano County General Plan (Solano County 2008) sets forth the policy framework to shape circulation within Solano County. The following Solano County goals and policy are applicable to the Project.

- **Goal:** Maintain and improve the County's transportation systems to enhance safety, resident access to basic needs, mobility, and convenience.
- **Goal:** Encourage the use of alternative forms of transportation such as transit, walking and bicycling to alleviate congestion and promote recreation
- **Policy TC.P-1:** Maintain and improve current transportation systems to remedy safety and congestion issues and establish specific actions to address these issues when they occur.

- **Policy TC.P-8:** Actively participate with Caltrans, Solano Transportation Authority, cities, and other agencies to plan for any proposed future realignments of current interregional routes.
- **Policy TC.P-14:** Encourage the development of transit facilities and operations along major corridors to connect the county with surrounding activity centers and regional destinations.

The Solano County portion of the project is located within the Solano County Metropolitan Transportation Commission (MTC) area. The 2017 Solano County Regional Transportation Plan does not include managed lanes between the Kidwell Road interchange and the Yolo County line. Accordingly, Caltrans continues to coordinate with Caltrans District 4, MTC, and Solano County Transportation Authority to include the Solano County portion of the project in their regional transportation plan update. In addition, Caltrans District 3 continues to coordinate with these organizations to amend the Solano County bus/carpool lane section into the MTC's metropolitan transportation plan.

2.2.1.3 City of Davis General Plan

The City of Davis General Plan (Amended 2007) includes a transportation element that establishes goals, performance objectives, and policies to guide the evolution and development of the Davis transportation system to year 2035.

Goal: Davis will provide a comprehensive, integrated, connected transportation system that provides choices between different modes of transportation.

Performance Objective 1.1: Achieve at least the following mode share distribution for all trips by 2035:

- 10% of trips by walking
- 10% of trips by public transportation
- 30% of trips by bicycle

Performance Objective 1.2: Increase use of walking, bicycling, and public transportation to and from the following places:

- Work
- Schools (Elementary, Junior High, and Senior High)
- UC Davis
- Downtown

Goal: The Davis transportation system will evolve to improve air quality, reduce carbon emissions, and improve public health by encouraging usage of clean, energy-efficient, active (i.e., human powered), and economically sustainable means of travel.

Performance Objective 2.1: Reduce carbon emissions from the transportation sector by 61% by 2035.

Performance Objective 2.2: Reduce VMT 39% by 2035.

Performance Objective 2.3: Annually increase funding for maintenance and operation needs of the transportation system, until fully funded.

Policy 1.2: Transportation access, accommodations, and circulation should contribute to creating a supportive environment for economic development in the downtown for both residents and visitors.

Policy 6.3: Address Davis' transportation needs as a major regional destination.

- Regularly coordinate with SACOG to ensure Davis transportation needs and priorities are appropriately considered.
- Coordinate with Yolo County, Solano County, and UC Davis to improve multi-modal access and connectivity between major intercity destinations.
- Coordinate with YoloBus, SACOG, UC Davis, and other relevant entities to provide direct public transportation service from Davis to Sacramento International Airport.
- Coordinate with Caltrans regarding highway corridor planning for segments that are within or may affect those within the Davis city limits related to:
 - Highway lane widenings
 - HOV lanes
 - HOT lanes
 - Interchange improvements or additions
 - Bicycle connectivity

2.2.1.4 UC Davis 2018 Long Range Development Plan

The UC Davis LRDP (2018) provides the growth policies for the main Davis campus and Russell Ranch research lands, totaling about 5,300 acres in Yolo and Solano Counties. The following policies from the LRDP are applicable to the Project.

- **Provide Land for Remote Parking Facility:** Reserve land for a remote 'park n bike' facility west of Old Davis Road, near the exit ramp for I-80; consider additional multi-modal transportation and clean energy features, such as the layering of renewable energy production atop surface parking lots; facilitation of regional transit access and high-speed charging stations for electric vehicles.
- **Preserve and Enhance the Bicycle and Pedestrian Infrastructure:** Preserve, enhance, and expand bicycle and pedestrian infrastructure; expand bicycle pathways and increase bicycle parking areas throughout the campus; improve bicycle safety

through educational programs; reduce bicycle and pedestrian conflicts; provide more designated areas for pedestrians; provide safe and gracious walkways for pedestrians throughout campus.

- **Foster A Healthier Transportation Ecosystem:** Enhance and expand travel services and programs to meet the daily mobility needs of the campus community and create a healthier transportation ecosystem; promote more sustainable travel choices to improve health of the individual, the environment, and the institution.
- **Enhance Transit Service:** Preserve and enhance transit service; continue to prioritize and improve transit access to the core campus area; consider improvements to the Hutchison Drive corridor for Unitrans buses and for safely mixing buses, bikes, and pedestrians.
- **Invest in Programs Before Parking:** Invest in transportation programs before constructing additional parking infrastructure; offer programs and services that promote more sustainable travel choices and minimize impacts to overall parking supply; balance adequate parking supply with the campus objective to reduce GHG emissions.
- **Promote Ride Sharing:** Promote carpools and vanpools as viable transportation options that reduce parking demand for the campus community; monitor the utilization of ride-hailing services and proactively manage campus circulation network to promote walking, biking, and busing as preferred travel modes.
- **Single Occupancy Vehicle Reduction:** Per the University of California Policy on Sustainable Practices, strive to reduce the percentage of employees and students commuting by 2025 by 10 percent relative to 2015-16 SOV commute rate. By 2050, strive to have no more than 40 percent of employees and no more than 30 percent of all employees and students commuting by SOV.

2.2.1.5 Yolo County 2030 General Plan

Yolo County's 2030 Countywide General Plan (Yolo County 2009) determines land use planning throughout the unincorporated portions of the County and includes a circulation element that focuses on mobility and is correlated with the land uses in the County General Plan's Land Use Element. The goals and policies emphasize multiple modes of travel and encourage non-vehicular trips. The following goals and policies from the Circulation Element are relevant to the Project.

Goal: Comprehensive and Coordinated Transportation System. Plan, develop, and maintain a comprehensive, coordinated transportation system to ensure the opportunity for safe, efficient, and convenient movement of persons and goods.

Policy CI-1.4: Continue to work with Caltrans, SACOG, cities, and other regional agencies to achieve timely construction of freeway, interchange, highway, and county road improvements that are consistent with this General Plan. The County shall assist Caltrans in implementing

improvements to State Highway facilities that are required due to new growth and are consistent with this General Plan.

Policy CI-1.10: Coordinate with appropriate entities to maintain the following as primary routes for emergency evacuation from Yolo County:

- I-80 – East into Sacramento and west toward Solano County and the San Francisco Bay Area.

Goal: Mode and User Equity. Design and implement a circulation and transportation system that reflects the needs of all transportation types and users.

- **Policy CI-2.1:** When constructing or modifying roadways, plan for use of the roadway space by all users, including automobiles, trucks, alternative energy vehicles, agricultural equipment, transit, bicyclists, and pedestrians, as appropriate to the road classification and surrounding land uses.
- **Policy CI-2.3:** Ensure that, wherever feasible, public transit and alternative mode choices are a viable and attractive alternative to the use of single occupant motor vehicles.

Goal: Service Thresholds. Balance the preservation of community and rural values with a safe and efficient circulation system.

Policy CI-3.1: Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions or require additional improvements to maintain the required level of service, except as specified below. The intent of this policy is to consider level of service as a limit on the planned capacity of the County's roadways.

- I-80 (Davis City Limit to West Sacramento City Limit) – LOS F is acceptable to the County. LOS F is anticipated by Caltrans according to the I-80 and Capital City Freeway Corridor System Management Plan (Caltrans 2009).

Policy CI-3.3: CEQA review for subsequent projects will analyze project traffic and circulation impacts using both the Yolo County General Plan policies and Caltrans policies (based on the Corridor System Management Plans, Transportation, Corridor Concept Reports, or other guidelines) as applicable.

A. Consider the following objectives, following consultation with Caltrans, when making decisions to expand or modify the State highway system in Yolo County:

1. Minimize impacts to the environment.
2. Minimize increases in GHGs and air pollutants.
3. Minimize increases in VMT.

4. Minimize long-distance commute trips.
5. Fully utilize existing capacity while maintaining stable flows and speeds.
6. Provide facilities for all users including pedestrians, bicyclists, carpool users and transit riders.

Policy CI-3.14: Encourage inter- and intra-regional traffic to use State and federal interstates and highways. The primary role of County roads is to serve local and agricultural traffic.

Goal: Environmental Impacts. Minimize environmental impacts caused by transportation.

Policy CI-4.3: Reduce dependence upon fossil fuels through:

- Reduction of vehicle trips and VMT by requiring compact, infill and mixed-use development.
- Use of alternatives to the drive-alone automobile, including walking, bicycling, and public transit.
- Promotion of ride sharing and car sharing programs.

2.2.1.6 City of West Sacramento 2035 General Plan

In 2016, the City of West Sacramento approved their General Plan 2035, which guides how the City should develop over time, specifies locations for various land uses, transportation improvements, new parks and open spaces, and other public infrastructure, and includes a Mobility Element containing policies for developing a connected, efficient, multi-modal system (City of West Sacramento 2016). The Mobility Element of the City of West Sacramento General Plan identifies the following goals and objectives that are applicable to the Project:

Goal: To develop and maintain a multi-modal integrated transportation system that provides for the safe and efficient movement of people and goods, supports vibrant neighborhoods and districts, and reduces air pollution and GHG emissions.

Policy M-1.1: Connectivity. The City shall strive to develop a comprehensive, safe, and fully integrated multimodal transportation system that connects residents, visitors, and employees to the city and region through all available modes including connected vehicles, car/bikeshare, and autonomous modes.

Policy M-1.2: Multi-Modal Corridors. The City shall establish multi-modal corridors and hubs within and between urban centers and along major corridors.

Policy M-1.3: Reduce Vehicle Miles Travelled. The City shall endeavor to reduce VMT and dependence on fossil fuels by continuing to develop a comprehensive multi-modal transportation system and compact, mixed-use development that includes more transit, bicycle, and pedestrian routes.

Policy M-1.4: Public Involvement. The City shall continue to involve the public, especially those traditionally underserved by transportation services, and seek public input on transportation issues, projects, and processes from the early stage of the planning process.

Policy M-1.8: Overcoming Barriers to Accessibility. The City shall strive to remove and minimize the effects of natural and manmade barriers, such as the Capital City Freeway, railways, Sacramento River, and the Deep Water Ship Channel, on accessibility between and within existing neighborhoods and districts.

Goal: To provide complete streets that accommodate driving, walking, bicycling, and public transit and are designed to enable safe, attractive, and comfortable access and travel for all users.

Policy M-2.2: Connectivity and Balance. The City shall preserve and continue to develop a comprehensive, integrated, and connected network of streets that balance walking and bicycling with public transit, automobiles, and trucks.

Policy M-2.5: Street Amenities. The City shall require public transit, bicycle, and pedestrian amenities in street design to promote walking, bicycling, and public transit use and complement the context of nearby centers, corridors, and neighborhoods.

Goal: To develop and maintain a street and highway system that promotes safe, efficient, and reliable movement of people and goods by multiple transportation modes and routes, reduces air quality impacts and GHG emissions, and minimizes noise impacts.

Policy M-3.4: Multi-modal Roadway Level of Service. The City shall develop, maintain, and implement multi-modal LOS roadway standards to measure trade-offs among modes and/or create a more balanced transportation system. The City shall endeavor to achieve levels of service for bikeways, pedestrian ways, and public transit that are at least as efficient as the automobile LOS.

Policy M-3.13: Emergency Service Coordination. The City shall coordinate development and maintenance of all transportation facilities with emergency service providers to ensure continued emergency service operation and service levels.

Goal: To support and maintain a range of public and private transit systems that are responsive to the needs of all residents and employees and allow efficient and safe travel throughout the city and region.

Policy M-4.1: Access to Public Transit. The City shall strive to ensure that all residents have access to adequate and safe public transit options that reduce dependence on fossil fuels and increase physical activity.

Policy M-4.2: Affordable Public Transit. The City shall work with the Yolo County Transit District (Yolobus) to provide adequate and affordable public transit choices, including expanded bus routes and service.

Policy M-4.3: Transit Priority. The City shall consider the use of transit preferential measures, such as signal priority, bypass lanes, and queue jumps, to improve transit service reliability.

Policy M-4.14: Park and Ride. The City shall cooperate with Caltrans and YoloBus in the development of Park-and-Ride facilities near major transportation corridors.

2.2.1.7 City of Sacramento 2035 General Plan

The City General Plan identifies the vision, themes, and organization of the City of Sacramento. The City General Plan's goals, policies, and implementation programs are meant to provide a guide for future development and preservation of resources. Part 2 of the City General Plan, *Citywide Goals and Policies*, includes a Mobility Element that describes the City's goals and policies related to transportation, including the following goals and policies that are applicable to the Project:

Goal: Increase multimodal accessibility (i.e., the ability to complete desired personal or economic transactions via a range of transportation modes and routes) throughout the city and region with an emphasis on walking, bicycling, and riding transit.

Policy M 1.2.1: The City shall develop an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit over time to increase travel choices and aid in achieving a more balanced transportation system and reducing air pollution and GHG emissions.

Goal: Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.

Policy M 1.3.6: The City shall work with adjacent jurisdictions and SACOG to identify existing and future transportation corridors that should be linked across jurisdictional boundaries to provide desired upstream and downstream traffic operations and to preserve sufficient ROW.

Goal: Reduce reliance on the private automobile.

Policy M 1.4.1: The City shall work with a broad range of agencies (e.g., SACOG, Sacramento Metropolitan Air Quality Management District [SMAQMD], Sacramento Regional Transit District [SacRT], Caltrans) to encourage and support programs that increase regional average vehicle occupancy, including the provision of traveler information, shuttles, preferential parking for carpools/vanpools, transit pass subsidies, road and parking pricing, and other methods.

Goal: Use emerging transportation technologies and services to increase transportation system efficiency.

Policy M 1.5.6: The City shall support State highway improvement projects and management plans consistent with the MTP/SCS.

The City of Sacramento is updating its general plan and anticipates adopting the 2040 General Plan in 2023. On January 19, 2021, the 2040 General Plan Draft Land Use Map, Proposed Roadway Changes, and other Key Strategies were presented to the Sacramento City Council. The Key Strategies include substantial policy changes, including permitting a greater variety of housing types in single-unit neighborhoods, such as duplexes, triplexes, and fourplexes. These new policies may allow for greater density development in traditionally single-family residential neighborhoods (City of Sacramento 2022a). The goals and policies for the draft 2040 General Plan are still under review by the community through August 2023 and would be adopted in early 2024, so they are not presented in this consistency evaluation. Nevertheless, the proposed Build Alternatives would not conflict with the new housing and climate change policies proposed in the 2040 General Plan draft.

2.2.1.8 Sacramento County 2030 General Plan

The County General Plan serves as a guide for growth and development within unincorporated Sacramento County. The plan focuses on economic growth and environmental sustainability, addressing the issues and needs of existing communities and establishing a framework for accommodating the growth of new communities. The County General Plan includes a new growth management strategy, a stronger focus on addressing existing communities and revitalizing aging commercial corridors, a new economic development element, and strategies to reduce GHG emissions consistent with state law.

The Circulation Element of the County General Plan was amended on October 6, 2020. As shown on Figure 2 of the Circulation Element, Sacramento County supports the development of a regional network of Bus/Carpool lanes, including along I-80 and US-50 in the Project area.

The Circulation Element of the Sacramento County General Plan identifies the following goals and objectives that are applicable to the Project:

Goal: Provide mobility for current and future residents of Sacramento County through complete streets and through a balanced and interconnected transportation system that includes all modes of travel—automobile, transit, pedestrian, and bicycling.

Policy CI-2: Promote continued mobility for individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability.

Policy CI-3: Travel modes shall be interconnected to form an integrated, coordinated, and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.

Policy CI-4: Provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.

Goal: Provide a balanced and integrated roadway system that maximizes the mobility of people and goods in a safe and efficient manner.

Policy CI-11: To preserve public mobility, freeways and thoroughfares should have limited access and maintain functional characteristics that predominantly accommodate through-traffic.

Policy CI-13: Collaborate with regional transportation planning agencies and neighboring jurisdictions to provide cross-jurisdictional mobility.

Goal: Promote a balanced and integrated transit system to maximize mobility in a safe and efficient manner.

Policy CI-19: Collaborate with transit service providers to provide transit services within the County that are responsive to existing and future transit demand.

Policy CI-20: Promote transit services in appropriate commercial corridors and where population and employment densities are sufficient or could be increased to support those transit services.

Policy CI-23: Consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services.

Goal: Manage travel demand on the roadway system and maximize the operating efficiency of transportation facilities to reduce impacts on air quality and to minimize the need for new or expanded facilities.

Policy CI-41: Consider Transportation Systems Management programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.

Policy CI-42: Collaborate with other agencies to develop measures to provide for more efficient traffic flow, reduce vehicular travel demand, and meet air quality goals.

2.2.2 Environmental Consequences

2.2.2.1 Build Alternatives

In general, all Build Alternatives would reduce congestion and improve safety along the I-80 and US-50 corridors in the Project area. Build Alternatives 2 through 7 propose differing types of managed lanes, meaning they may vary in their effects on person throughput, multimodal access, ridesharing, mobility, traffic operations, innovative transportation management technologies, and opportunities/support for economic development. With their different managed lane strategies, Build Alternatives 2 through 7 also vary in their consistency with the goals and policies of local and regional plans. Table 2-2 below evaluates each alternative's consistency with applicable policies from regional and local plans.

Table 2-2. Project Consistency with Regional and Local Plans

Applicable Policy	Consistency Analysis for Build Alternatives
SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy	
Policy 12: Take steps to implement tolling or pricing of specific lanes on major facilities, such as freeways, to improve traffic management, reliability, and operations of those facilities and to help raise funding for the cost of building and maintaining large capital investments.	<p>Build Alternatives 3, 4, and 5: <u>Consistent</u>. These alternatives would implement tolling or pricing strategies.</p> <p>Build Alternative 2: <u>Partially consistent</u>. Although this alternative would not implement tolling or pricing strategies, it would take steps to allow future tolling or pricing.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. These alternatives would not include tolling or pricing strategies. Furthermore, due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve traffic operations in the Project corridor compared to the No-Build Alternative.</p>
Policy 13: All new major expansion projects on the region's freeways and expressways should be planned for eventual deployment of pricing options to both manage demand and provide a financing mechanism for capital costs. Any pricing strategy pursued should be sensitive to changes in roadway demand during different parts of the day (peak/off-peak) with the objective of managing demand and providing travel choice.	<p>Build Alternatives 3, 4, and 5: <u>Consistent</u>. These alternatives would implement tolling or pricing strategies. Managed lanes would be operational during peak demand periods only.</p> <p>Build Alternative 2: <u>Partially consistent</u>. Although this alternative would not implement tolling or pricing strategies, it would take steps to allow future tolling or pricing. Managed lanes would be operational during peak demand periods only.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. These alternatives would not include tolling or pricing strategies. Furthermore, due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve traffic operations in the Project corridor compared to the No-Build Alternative. Build Alternatives 6 and 7 would manage lanes for transit and HOV use, respectively, during peak hours.</p>
Policy 14: Revenues generated from facility-based pricing should be used to build and maintain a regional network of paid express lanes and, where surplus revenue is available, on strategic transit services (e.g., express buses) or other mobility solutions that can reduce VMT and provide multiple travel options along priced corridors.	<p>Build Alternatives 3, 4, and 5: <u>Consistent</u>. These alternatives would implement tolling or pricing strategies, and revenues generated would be used to build and maintain the highway infrastructure and improve multi-modal options that reduce VMT.</p> <p>Build Alternatives 2: <u>Partially consistent</u>. Although this alternative would not implement tolling or pricing strategies, it would take steps to allow future tolling or pricing.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. These alternatives would not include tolling or pricing strategies. Furthermore, due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve traffic operations in the Project corridor compared to the No-Build Alternative.</p>

Applicable Policy	Consistency Analysis for Build Alternatives
<p>Policy 16: When implementing pricing strategies, both paid express lanes and mileage-based fees/PayGo, the region should make every effort to avoid negatively impacting lower-income and rural households. For regional implementation of PayGo, explore innovative options for setting fees, such as including offsetting incentives for non-vehicular travel, offsets to fees for disadvantaged households, and keying fee rates to maintenance and fix-it-first goals.</p>	<p>Build Alternatives 3, 4, and 5: <u>Partially consistent</u>. These alternatives would implement tolling or pricing strategies. These alternatives would benefit all travelers using the I-80/US-50 corridor, including environmental justice communities. While they would not negatively affect lower-income or rural households, these alternatives may have proportionately smaller benefits to lower-income and rural households who may be less able to pay fees for use of managed lanes. Caltrans would explore options to minimize effect of tolling on low-income travelers; see Sections 4.4 Environmental Justice and 4.5 Equity.</p> <p>Build Alternative 6: <u>Partially consistent</u>. This alternative would add a transit lane in each direction. Although it would not include tolling or pricing strategies, it could potentially provide proportionately larger benefits to lower-income households using transit.</p> <p>Build Alternatives 2 and 7: <u>Partially consistent</u>. These alternatives would not implement tolling or pricing strategies and the benefits to all communities would be equal. These alternatives would take steps to allow future tolling or pricing by adding or repurposing lanes for HOVs.</p>
<p>Policy 18: System expansion investments that are not directly paid for by new development should be focused on fixing major bottlenecks that exist today, and/or incentivize development opportunities in infill areas.</p>	<p>Build Alternatives 2, 3, 4, and 5: <u>Consistent</u>. Build Alternatives 2 through 5 would address key existing bottleneck locations on the I-5 corridor in the Project area.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve existing bottlenecks compared to the No-Build Alternative.</p>
<p>Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.</p>	<p>All Build Alternatives: <u>Consistent</u>. All Build Alternatives would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.</p>
<p>Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.</p>	<p>Build Alternatives 3, 4, and 5: <u>Partially consistent</u>. These alternatives would benefit all travelers using the I-80/US-50 corridor, including environmental justice communities. However, these alternatives may have proportionately smaller benefits to environmental justice communities who may be less able to pay fees for use of HOT or express lanes. See sections 4.4 Environmental Justice and 4.5 Equity.</p> <p>Build Alternative 6: <u>Consistent</u>. This alternative would add a transit lane in each direction, which could potentially provide proportionately larger benefits to environmental justice communities.</p> <p>Build Alternatives 2 and 7: <u>Partially consistent</u>. These alternatives would add or repurpose lanes for HOVs. The benefits to all communities would be equal, including environmental justice communities.</p>

Applicable Policy	Consistency Analysis for Build Alternatives
Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve circulation on I-80/US-50 in the Project area, which would improve access to major economic assets and job centers. The “b” alternatives would also improve circulation and access by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 Interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.
Solano County General Plan	
Policy TC.P-1: Maintain and improve current transportation systems to remedy safety and congestion issues and establish specific actions to address these issues when they occur.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would include managed lanes to improve traffic operations on I-80/US-50 in the Project area. The “b” alternatives would further remedy congestion by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 Interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.
Policy TC.P-8: Actively participate with Caltrans, Solano Transportation Authority, cities, and other agencies to plan for any proposed future realignments of current interregional routes.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to improve traffic operations on I-80/US-50 in the Project area and is being coordinated with other transportation planning agencies.
Policy TC.P-18: Encourage the development of transit facilities and operations along major corridors to connect the county with surrounding activity centers and regional destinations.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to improve traffic operations on I-80/US-50 in the Project area and development of a new Park-and-Ride Facility. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 Interchange.
City of Davis General Plan	
Policy 1.2: Transportation access, accommodations, and circulation should contribute to creating a supportive environment for economic development in the downtown for both residents and visitors.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area, including around downtown Davis interchanges. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.

Applicable Policy	Consistency Analysis for Build Alternatives
<p>Policy 6.3: Address Davis' transportation needs as a major regional destination.</p> <p>Regularly coordinate with SACOG to ensure Davis transportation needs and priorities are appropriately considered.</p> <p>Coordinate with Yolo County, Solano County, and UC Davis to improve multi-modal access and connectivity between major intercity destinations.</p> <p>Coordinate with Yolo County, SACOG, UC Davis, and other relevant entities to provide direct public transportation service from Davis to Sacramento International Airport.</p> <p>Coordinate with Caltrans regarding highway corridor planning for segments that are within or may affect those within the Davis city limits related to:</p> <ul style="list-style-type: none"> • Highway lane widenings • HOV lanes • HOT lanes • Interchange improvements or additions • Bicycle connectivity 	<p>Build Alternatives 2, 3, 4, and 5: <u>Consistent</u>. Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.</p>
UC Davis 2018 Long Range Development Plan	
<p>Provide Land for Remote Parking Facility: Reserve land for a remote 'park n bike' facility west of Old Davis Road, near the exit ramp for I-80; consider additional multi-modal transportation and clean energy features, such as the layering of renewable energy production atop surface parking lots; facilitation of regional transit access and high-speed charging stations for electric vehicles.</p>	<p>All Build Alternatives: <u>Consistent</u>. All Build Alternatives would include managed lanes to promote multi-modal transportation options and improve traffic operations on I-80/US-50 in the Project area.</p>
<p>Preserve and Enhance the Bicycle and Pedestrian Infrastructure: Preserve, enhance, and expand bicycle and pedestrian infrastructure; expand bicycle pathways and increase bicycle parking areas throughout the campus; improve bicycle safety through educational programs; reduce bicycle and pedestrian conflicts; provide more designated areas for pedestrians; provide safe and gracious walkways for pedestrians throughout campus.</p>	<p>All Build Alternatives: <u>Partially consistent</u>. All Build Alternatives would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.</p>
<p>Foster A Healthier Transportation Ecosystem: Enhance and expand travel services and programs to meet the daily mobility needs of the campus community and create a healthier transportation ecosystem; promote more sustainable travel choices to improve health of the individual, the environment, and the institution.</p>	<p>All Build Alternatives: <u>Consistent</u>. All Build Alternatives would include managed lanes to promote multi-modal transportation options and improve traffic operations on I-80/US-50 in the Project area.</p>

Applicable Policy	Consistency Analysis for Build Alternatives
Enhance Transit Service: Preserve and enhance transit service; continue to prioritize and improve transit access to the core campus area; consider improvements to the Hutchison Drive corridor for Unitrans buses and for safely mixing buses, bikes, and pedestrians.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to promote multi-modal transportation options and improve traffic operations on I-80/US-50 in the Project area. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which could improve public transit options and reduce SOV.
Invest in Programs Before Parking: Invest in transportation programs before constructing additional parking infrastructure; offer programs and services that promote more sustainable travel choices and minimize impacts to overall parking supply; balance adequate parking supply with the campus objective to reduce GHG emissions.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to promote multi-modal transportation options and improve traffic operations on I-80/US-50 in the Project area.
Promote Ride Sharing: Promote carpools and vanpools as viable transportation options that reduce parking demand for the campus community; monitor the utilization of ride-hailing services and proactively manage campus circulation network to promote walking, biking, and busing as preferred travel modes.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . The managed lanes under these Build Alternatives would incentivize increased vehicle occupancy, ride sharing, and/or transit use. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which could improve public transit options.
Single Occupancy Vehicle Reduction: Per the University of California Policy on Sustainable Practices, strive to reduce the percentage of employees and students commuting by single occupancy vehicles (SOV) in 2025 by 10 percent relative to 2015-16 SOV commute rate. By 2050, strive to have no more than 40 percent of employees and no more than 30 percent of all employees and students commuting by SOV.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . The managed lanes under these Build Alternatives would incentivize increased vehicle occupancy and/or transit use, thereby reducing SOV. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which could improve public transit options and reduce SOV.
Yolo County 2030 General Plan	
Policy CI-1.4: Continue to work with Caltrans, SACOG, cities, and other regional agencies to achieve timely construction of freeway, interchange, highway, and County Road improvements that are consistent with this General Plan. The County shall assist Caltrans in implementing improvements to State Highway facilities that are required due to new growth and are consistent with this General Plan.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to improve traffic operations on I-80/US-50 in the Project area.
Policy CI-1.10: Coordinate with appropriate entities to maintain the following as primary routes for emergency evacuation from Yolo County: <ul style="list-style-type: none"> I-80 – East into Sacramento and west toward Solano County and the San Francisco Bay Area. 	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to improve traffic operations on I-80/US-50 in the Project area.

Applicable Policy	Consistency Analysis for Build Alternatives
<p>Policy CI-2.1: When constructing or modifying roadways, plan for use of the roadway space by all users, including automobiles, trucks, alternative energy vehicles, agricultural equipment, transit, bicyclists, and pedestrians, as appropriate to the road classification and surrounding land uses.</p>	<p>Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u>. These alternatives would incentivize increased vehicle occupancy and/or transit use. They would also extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR 32A.</p> <p>Build Alternative 6: <u>Partially consistent</u>. This alternative would add a transit lane in each direction, which could improve the attractiveness of riding transit. It also would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.</p>
<p>Policy CI-2.3: Ensure that, wherever feasible, public transit and alternative mode choices are a viable and attractive alternative to the use of single occupant motor vehicles.</p>	<p>Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u>. The managed lanes under these Build Alternatives would incentivize increased vehicle occupancy and/or transit use.</p> <p>Build Alternative 6: <u>Consistent</u>. This alternative would add a transit lane in each direction, which could improve public transit options.</p>
<p>Policy CI-3.1: Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions or require additional improvements to maintain the required level of service, except as specified below. The intent of this policy is to consider level of service as a limit on the planned capacity of the County's roadways.</p> <ul style="list-style-type: none"> I-80 (Davis City Limit to West Sacramento City Limit) – LOS F is acceptable to the County. LOS F is anticipated by Caltrans according to the Interstate 80 and Capital City Freeway Corridor System Management Plan (Caltrans 2009, as cited in Yolo County 2009). 	<p>Build Alternatives 2, 3, 4, and 5: <u>Consistent</u>. Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.</p>
<p>Policy CI-3.3: CEQA review for subsequent projects will analyze project traffic and circulation impacts using both the Yolo County General Plan policies and Caltrans policies as applicable.</p> <p>A. Consider the following objectives, following consultation with Caltrans, when making decisions to expand or modify the State highway system in Yolo County:</p> <ol style="list-style-type: none"> 1. Minimize impacts to the environment. 2. Minimize increases in GHGs and air pollutants. 3. Minimize increases in VMT. 4. Minimize long-distance commute trips. 5. Fully utilize existing capacity while maintaining stable flows and speeds. 6. Provide facilities for all users including pedestrians, bicyclists, carpool users, and transit riders. 	<p>All Build Alternatives: <u>Partially consistent</u>. All Build Alternatives would incentivize increased vehicle occupancy and/or transit use, which could minimize increases in VMT and would provide facilities for carpool users and transit riders. They would also improve an existing facility for bicyclists by extending the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.</p>

Applicable Policy	Consistency Analysis for Build Alternatives
Policy CI-1.14: Encourage inter- and intra-regional traffic to use State and federal interstates and highways. The primary role of County Roads is to serve local and agricultural traffic.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include managed lanes to improve traffic operations on I-80/US-50 in the Project area, which could encourage inter- and intra-regional traffic to use these routes, rather than County Roads.
Policy CI-4.3: Reduce dependence upon fossil fuels through: <ul style="list-style-type: none"> Reduction of vehicle trips and VMT by requiring compact, infill and mixed-use development. Use of alternatives to the drive-alone automobile, including walking, bicycling, and public transit. Promotion of ride sharing and car sharing programs. 	All Build Alternatives: <u>Partially consistent</u> . All Build Alternatives would incentivize increased vehicle occupancy and/or transit use, which could promote the use of alternatives to the drive-alone automobile. They would also improve an existing facility for bicyclists.
City of West Sacramento 2035 General Plan	
Policy M-1.1: Connectivity. The City shall strive to develop a comprehensive, safe, and fully integrated multimodal transportation system that connects residents, visitors, and employees to the city and region through all available modes including connected vehicles, car/bikeshare, and autonomous modes.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.
Policy M-1.2: Multi-modal Corridors. The City shall establish multi-modal corridors and hubs within and between urban centers and along major corridors.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would improve traffic operations and multi-modal opportunities on I-80/US-50 in the Project area. All Build Alternatives would include a new Park-and-Ride Facility in West Sacramento.
Policy M-1.3: Reduce Vehicle Miles Traveled. The City shall endeavor to reduce VMT and dependence on fossil fuels by continuing to develop a comprehensive multi-modal transportation system and compact, mixed-use development that includes more transit, bicycle, and pedestrian routes.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . These alternatives would incentivize increased vehicle occupancy and/or transit use. However, the reduction in travel time with these alternatives would induce demand and increase VMT compared to the No-Build Alternative. Build Alternative 7 would have the lowest increase in VMT. These alternatives would also extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. Build Alternative 6: <u>Partially consistent</u> . This alternative would add a transit lane in each direction, which could improve the attractiveness of riding transit. It also would increase VMT compared to the No-Build Alternative and extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.
Policy M-1.4: Public Involvement. The City shall continue to involve the public, especially those traditionally underserved by transportation services, and seek public input on transportation issues, projects, and processes from the early stage of the planning process.	All Build Alternatives: <u>Consistent</u> . Caltrans and other stakeholders have coordinated extensive public feedback on the project.

Applicable Policy	Consistency Analysis for Build Alternatives
Policy M-1.8: Overcoming Barriers to Accessibility. The City shall strive to remove and minimize the effects of natural and manmade barriers, such as the Capital City Freeway, railways, Sacramento River, and the Deep Water Ship Channel, on accessibility between and within existing neighborhoods and districts.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would not change existing barriers or decrease accessibility between and within existing neighborhoods and districts.
Policy M-2.2: Connectivity and Balance. The City shall preserve and continue to develop a comprehensive, integrated, and connected network of streets that balance walking and bicycling with public transit, automobiles, and trucks.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would improve traffic operations and multi-modal opportunities on I-80/US-50 in the Project area.
Policy M-2.5: Street Amenities. The City shall require public transit, bicycle, and pedestrian amenities in street design to promote the walking, bicycling, and public transit use and complement the context of nearby centers, corridors, and neighborhoods.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . These alternatives would incentivize increased vehicle occupancy and/or transit use. They would also extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. Build Alternative 6: <u>Partially consistent</u> . This alternative would add a transit lane in each direction, which could improve the attractiveness of riding transit. It also would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.
Policy M-3.4: Multi-modal Roadway Level of Service. The City shall develop, maintain, and implement multi-modal LOS roadway standards to measure trade-offs among modes and/or create a more balanced transportation system. The City shall endeavor to achieve levels of service for bikeways, pedestrian ways, and public transit that are at least as efficient as the automobile LOS.	Build Alternatives 2 through 5: <u>Partially consistent</u> . The managed lanes under these build alternatives may improve the public transit LOS. They may also improve LOS for bikeways by extending the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which would improve the LOS for public transit. It may also improve LOS for bikeways by extending the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. Build Alternative 7: <u>Partially Consistent</u> . Due to underutilization of the lanes repurposed for HOVs (Alternative 7), this alternative would not improve peak-hour circulation for transit in the Project corridor compared to the No-Build Alternative. It may improve LOS for bikeways by extending the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A.
Policy M-3.13: Emergency Service Coordination. The City shall coordinate development and maintenance of all transportation facilities with emergency service providers to ensure continued emergency service operation and service levels.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would implement a TMP during construction to maintain emergency service operations and response times. Improved peak-hour traffic operations on I-80/US-50 in the Project area with Build Alternative 2 through 5 would improve long-term emergency service operation.
Policy M-4.1: Access to Public Transit. The City shall strive to ensure that all residents have access to adequate and safe public transit options that reduce dependence on fossil fuels and increase physical activity.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . The managed lanes under these build alternatives would incentivize increased vehicle occupancy and/or transit use. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which could improve public transit options.

Applicable Policy	Consistency Analysis for Build Alternatives
Policy M-4.2: Affordable Public Transit. The City shall work with the Yolo County Transit District (Yolobus) to provide adequate and affordable public transit choices, including expanded bus routes and service.	Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u> . The managed lanes under these build alternatives would incentivize increased vehicle occupancy and/or transit use. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which could improve public transit options.
Policy M-4.3: Transit Priority. The City shall consider the use of transit preferential measures, such as signal priority, bypass lanes, and queue jumps, to improve transit service reliability.	Build Alternatives 2, 3, 4, and 5: <u>Partially consistent</u> . The managed lanes under these build alternatives could improve transit service reliability. Build Alternative 6: <u>Consistent</u> . This alternative would add a transit lane in each direction, which would improve transit service reliability. The “b” alternatives would further improve transit service reliability by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 Interchange.
Policy M-4.14: Park and Ride. The City shall cooperate with Caltrans and Yolobus in the development of Park-and-Ride facilities near major transportation corridors.	All Build Alternatives: <u>Consistent</u> . All Build Alternatives would include construction of a Park-and-Ride Facility in West Sacramento.
City of Sacramento 2035 General Plan	
M 1.2.1: The City shall develop an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit over time to increase travel choices and aid in achieving a more balanced transportation system and reducing air pollution and GHG emissions.	Build Alternatives 2, 3, 4, and 5: <u>Partially consistent</u> . These alternatives would incentivize increased vehicle occupancy and/or transit use. They also would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternative 6: <u>Partially consistent</u> . This alternative would add a transit lane in each direction, which could improve the attractiveness of riding transit. It also would extend the westernmost limit of the existing Class I bicycle pathway along I-80 at the Yolo Causeway to connect to CR-32A. Build Alternative 7: <u>Partially consistent</u> . Build Alternative 7 would repurpose lanes for HOVs, which may incentivize carpool and transit use. However, this alternative would not improve circulation on the project corridor compared to the No-Build Alternative.
M 1.3.6: The City shall work with adjacent jurisdictions and SACOG to identify existing and future transportation corridors that should be linked across jurisdictional boundaries to provide desired upstream and downstream traffic operations and to preserve sufficient ROW.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.

Applicable Policy	Consistency Analysis for Build Alternatives
M 1.4.1: The City shall work with a broad range of agencies (e.g., SACOG, SMAQMD, SacRT, Caltrans) to encourage and support programs that increase regional average vehicle occupancy, including the provision of traveler information, shuttles, preferential parking for carpools/vanpools, transit pass subsidies, road and parking pricing, and other methods.	Build Alternatives 2, 3, 4, 6, and 7: <u>Consistent</u> . The types of managed lanes under these Build Alternatives would incentivize increased vehicle occupancy and/or transit use. Build Alternative 5: <u>Inconsistent</u> . This alternative would create an express lane in each direction where all users pay a fee regardless of vehicle occupancy. Therefore, it would not encourage increased vehicle occupancy unless there were discounted fees for carpools.
M 1.5.6. The City shall support State highway improvement projects and management plans consistent with the MTP/SCS.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area consistent with the MTP/SCS. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative and therefore would not be consistent with the MTP/SCS.
Sacramento County General Plan of 2005–2030	
Policy CI-2: Promote continued mobility for individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability.	All Build Alternatives: <u>Partially consistent</u> . None of the Build Alternatives include improvements that explicitly benefit individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability. Alternative 6, which adds a transit-only lane, may improve mobility for these individuals who can access the existing transit system.
Policy CI-3: Travel modes shall be interconnected to form an integrated, coordinated, and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.	All Build Alternatives: <u>Partially consistent</u> . All Build Alternatives would improve operations and safety on I-80/US-50 in the Project area, incentivize increased vehicle occupancy and/or transit use, and are consistent with the land uses to be served. The Build Alternatives provide bicycle improvements as described in Section 1.5
Policy CI-4: Provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.	All Build Alternatives: <u>Partially consistent</u> . The Build Alternatives would not provide multiple transportation choices. The managed lane alternatives under Build Alternatives 2 through 4 and 7 would incentivize increased vehicle occupancy, while Build Alternative 6 would incentivize transit use.
Policy CI-11: To preserve public mobility, freeways and thoroughfares should have limited access and maintain functional characteristics that predominantly accommodate through-traffic.	Build Alternatives 2, 3, 4, and 5: <u>Consistent</u> . Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Build Alternatives 6 and 7: <u>Inconsistent</u> . Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.

Applicable Policy	Consistency Analysis for Build Alternatives
<p>Policy CI-13: Collaborate with regional transportation planning agencies and neighboring jurisdictions to provide cross-jurisdictional mobility.</p>	<p>Build Alternatives 2, 3, 4, and 5: <u>Consistent</u>. Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area, improving cross-jurisdictional mobility. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation in the Project corridor compared to the No-Build Alternative.</p>
<p>Policy CI-19: Collaborate with transit service providers to provide transit services within the County that are responsive to existing and future transit demand.</p>	<p>Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u>. Although there would not be an exclusive transit lane under these alternatives, transit use of managed lanes may result in reduced travel times for transit users.</p> <p>Build Alternative 6: <u>Consistent</u>. This alternative would add a transit lane in each direction, which would promote transit services that are responsive to existing and future transit demand.</p>
<p>Policy CI-20: Promote transit services in appropriate commercial corridors and where population and employment densities are sufficient or could be increased to support those transit services.</p>	<p>Build Alternatives 2, 3, 4, 5, and 7: <u>Partially consistent</u>. Although there would not be an exclusive transit lane under these alternatives, transit use of managed lanes may result in reduced travel times for transit users.</p> <p>Build Alternative 6: <u>Consistent</u>. This alternative would add a transit lane in each direction, which would promote transit services that are responsive to existing and future transit demand.</p>
<p>Policy CI-23: Consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services.</p>	<p>Build Alternatives 2, 3, 4, and 7: <u>Partially consistent</u>. Although there would not be an exclusive transit lane under these alternatives, transit use of managed lanes may result in reduced travel times for transit users.</p> <p>Build Alternative 5: <u>Inconsistent</u>. This alternative would create an express lane in each direction where all users pay a fee regardless of vehicle occupancy. Therefore, it would not directly encourage increased vehicle occupancy and transit use.</p> <p>Build Alternative 6: <u>Consistent</u>. This alternative would add a transit lane in each direction, which would reduce travel times for transit users and thereby may benefit senior, disabled, low-income, and transit-dependent people.</p>
<p>Policy CI-41: Consider Transportation System Management programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.</p>	<p>Build Alternatives 2, 3, 4, 6, and 7: <u>Consistent</u>. The types of managed lanes under these alternatives would incentivize increased vehicle occupancy and/or transit use.</p> <p>Build Alternative 5: <u>Inconsistent</u>. This alternative would create an express lane in each direction where all users pay a fee regardless of vehicle occupancy. Therefore, it would not directly encourage increased vehicle occupancy.</p>

Applicable Policy	Consistency Analysis for Build Alternatives
<p>Policy CI42: Collaborate with other agencies to develop measures to provide for more efficient traffic flow, reduce vehicular travel demand and meet air quality goals.</p>	<p>Build Alternatives 2, 3, 4, and 5: <u>Consistent</u>. Build Alternatives 2 through 5 would improve traffic operations on I-80/US-50 in the Project area, improving traffic flow. The “b” alternatives would further improve operations by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange.</p> <p>Build Alternatives 6 and 7: <u>Inconsistent</u>. Due to underutilization of the proposed transit lane (Alternative 6) or lanes repurposed for HOVs (Alternative 7), these alternatives would not improve peak-hour circulation and flow in the Project corridor compared to the No-Build Alternative.</p>

Each alternative varies in its consistency with the goals and policies of local and regional plans, depending on the type of managed lane and effectiveness in improving traffic operations. Some consistency issues result from policies that on the surface may appear to be mutually exclusive. For example, managed lanes with tolling or pricing strategies would be consistent with SACOG, City, and County goals to provide a funding mechanism for capital costs; however, the fees may make these alternatives less beneficial to environmental justice communities. As described in the MTP/SCS, to resolve these inconsistencies, alternatives would explore innovative options for setting fees, such as including offsetting incentives for non-vehicular travel, offsets to fees for disadvantaged households, and keying fee rates to maintenance and fix-it-first goals. See sections 4.4 Environmental Justice and 4.5 Equity for a discussion of options considered to offset impacts on low-income and other disadvantaged households. Overall, Build Alternatives 2 through 5 are consistent or partially consistent with local policies related to improved transportation infrastructure, whereas Build Alternatives 6 and 7 are inconsistent with several policies because they would result in degraded functionality in the Project corridor compared to the No-Build Alternative. The “b” alternatives would further improve operations under all Build Alternatives by providing a direct connection of the managed lanes by flying over US-50 at the I-80/US-50 interchange. Overall, the Build Alternatives are consistent or partially consistent with local policies related to improved transportation infrastructure.

2.2.2.2 No-Build Alternative

Alternative 1 (No-Build) is not included in Table 2-2 as it would not meet the purpose and need of the Project and would not be consistent with most applicable goals and policies of local and regional plans.

2.2.3 Avoidance, Minimization, and/or Mitigation Measures

There would be no direct adverse effect on Land Use, so no avoidance, minimization, and/or mitigation measures are required.

2.3 Parks and Recreation

This section provides a discussion of existing parks and recreational facilities in the Land Use Study Area and potential Project effects on these facilities.

2.3.1 Affected Environment

The following Park and Recreation facilities, listed from west to east, are within the Land Use Study Area (Table 2-3; Figure 2-2).

Table 2-3. Park and Recreation Facilities

Park and Recreational Facility Name	Facility Type
UC Davis Arboretum	The UC Davis Arboretum and Public Garden spans the campus' 5,300-plus acres and includes the historic Arboretum. It connects with the Putah Creek Riparian Reserve and is open to the public. Access is at various locations, but the visitor headquarters are located off Le Rue Road.
Putah Creek Riparian Reserve	The UC Davis Putah Creek Riparian Reserve is a 640-acre natural riparian and grassland ecosystem maintained and operated by the UC Davis Arboretum and Public Garden. Most of the reserve is open to the public.
Toad Hollow Dog Park	Toad Hollow Dog Park is a 2.5-acre City of Davis off-leash dog park located at 1919 2nd Street.
Playfields Park	Approximately 16 acres, Playfields Park is a City of Davis park located at 2500 Research Drive, with three baseball/softball fields, a soccer field, batting cages, basketball hoops, and playground equipment.
Willow Creek Park*	Willow Creek Park is a City of Davis park, is approximately 5 acres, and is located at 3800 Cowell Boulevard, with play structures, a basketball area, and grassy areas.
Pioneer Park*	Adjacent to Pioneer Elementary School in Davis, Pioneer Park includes a dog area, tennis courts, play structures, and restrooms.
Yolo Bypass Wildlife Area	The Yolo Bypass Wildlife Area is comprised of 17 separate management units covering approximately 16,600 acres, with the portion along the project area managed by California Department of Fish and Wildlife, Bay Delta Region. It is a protected habitat for fish, waterfowl, migratory birds, raptors, invertebrates, snakes, and turtles. It is open daily to the public for wildlife viewing and fishing and includes self-driving tours along levees. Land also includes Tule Ranch, a working cattle ranch with extensive vernal pool areas.
Roland Hensley Bike Park	Roland Hensley Bike Park is a small (0.5 acre) park in West Sacramento, which provides a Class I bicycle lane at 4940 West Capitol Avenue that connects to the east end of the Yolo Causeway Bicycle Path. It includes a picnic area and water fountain.
Meadowdale Park	Meadowdale Park is a 4-acre park managed by the City of West Sacramento. It is located at 3625 West Capitol Avenue in West Sacramento and includes picnic tables, barbeques, a playground, and parking.
Joey Lopes Park*	The Joey Lopes Park in West Sacramento includes play structures, picnic tables, drinking fountains, and a half-court basketball.
Westacre Park	Westacre Park is a 5-acre park maintained by the City of West Sacramento with an enclosed skateboard park, picnic tables, and shade areas. It is located at 1755 Evergreen Avenue.
Jerome D. Barry Park*	Jerome D. Barry Park is located at 809 Ballpark Drive in West Sacramento. It is adjacent to the City's 3-million-gallon water facility and includes small seating areas, multi-use lawns, picnic areas, and play structures.
Garden Park*	Garden Neighborhood Park is a 0.5-acre park in West Sacramento located at 564 Garden Street with raised garden beds, grassy areas, public art, and picnic tables.

Park and Recreational Facility Name	Facility Type
Fredrick Miller Regional Park*	Located at 2710 Ramp Way in the City of Sacramento, Fredrick Miller Regional Park is 40.25 acres and includes picnic tables, restrooms, river access, a boat ramp, a marina, and a concession bar.
O'Neil Park	O'Neil Park is located at 715 Broadway, Sacramento, and consists of a lighted soccer field and a baseball/softball field with restroom facilities and parking. It is maintained and managed by the City of Sacramento.
Southside Park	Southside Park is a 20-acre park managed by the City of Sacramento located at 2115 6th Street in Sacramento with tennis courts, basketball courts, a wading pool, jobbing path, picnic tables, playgrounds, and a community garden.
Sand Cove Park	Sand Cove Park is a beach and river access park maintained by the City of Sacramento that spans 9.88 acres, with a small parking lot and access off the Garden Highway.
River Otter Park	River Otter Park is a small (1.88-acre) park managed by the City of Sacramento that features a playground, volleyball court, and picnic tables. It is located at 2303 Barandas Drive in Sacramento.
Two Rivers Park*	Two Rivers Park is a 3.03-acre joint-use school and neighborhood park located at 3166 Two Rivers Drive in the City of Sacramento that features a multi-purpose sports field, picnic area, tot lot, and walkways.

*These park and recreation facilities are located more than 500 feet from the proposed Project so were not included in the Section 4(f) technical memorandum prepared for the Project (Caltrans 2023a). The proposed Project would have no direct or proximity impacts to these recreation resources due to their distance from the Project.

2.3.2 Environmental Consequences

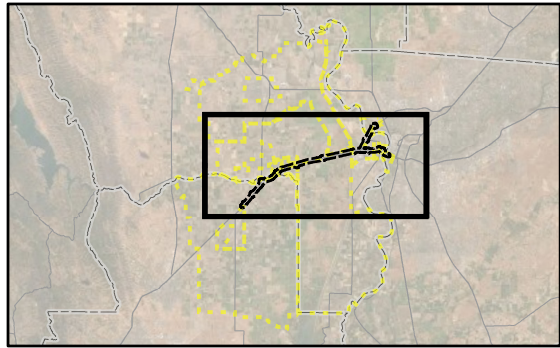
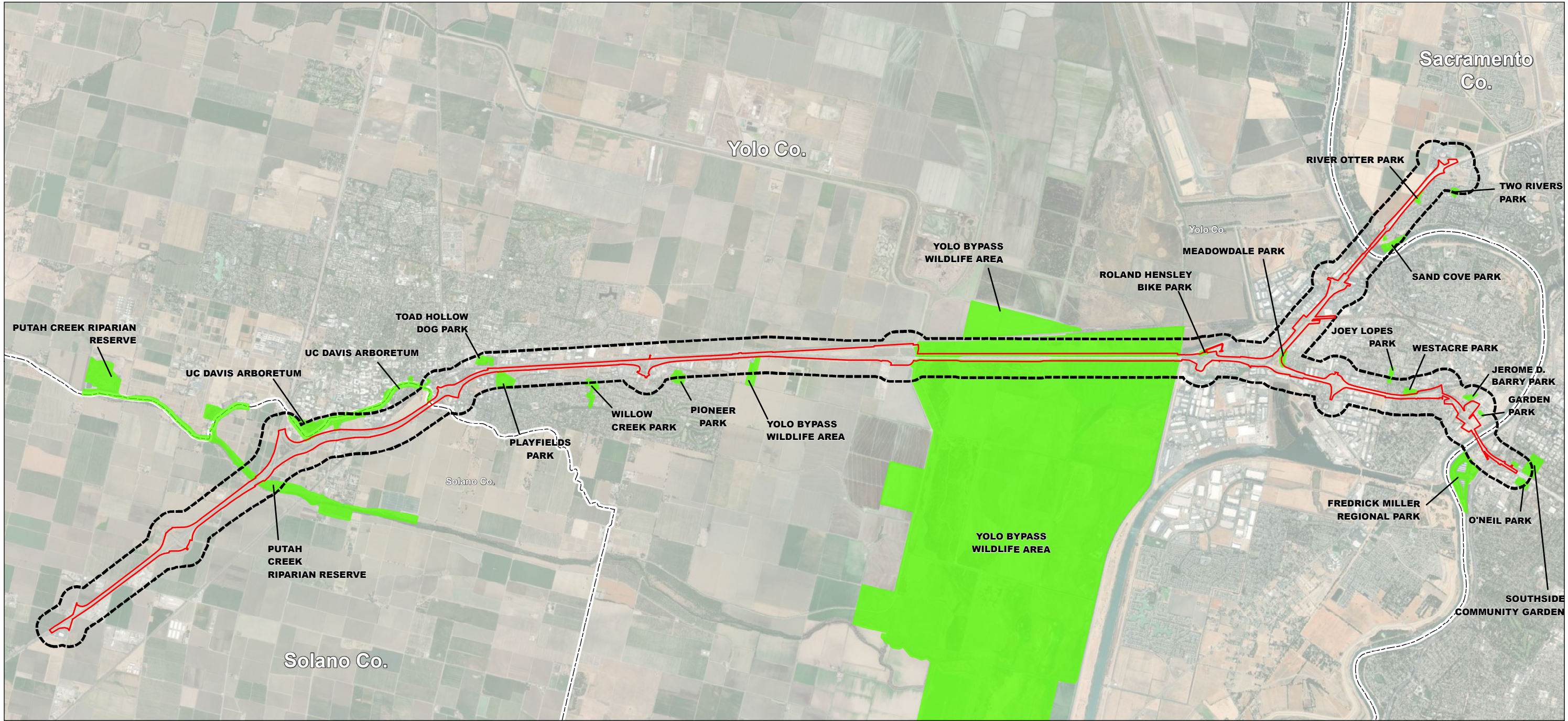
2.3.2.1 Build Alternatives

The Project would occur almost entirely within the existing Caltrans ROW and there would be no adverse effects on the activities, features, or attributes of any recreational facilities in or adjacent to the Land Use Study Area. The Section 4(f) technical memorandum prepared for the Project concludes that the Project would not require the permanent use or constructive use of a Section 4(f) park or recreational facility, regardless of Build Alternative (Caltrans 2023a).

Build Alternatives 2 through 6 would require construction-related activities within Roland Hensley Bike Park and Yolo Bypass Wildlife Area that would result in temporary occupancy of these recreation resources. However, the duration of the occupancy would be temporary, the scope of work would be minor, no adverse impacts to protected activities or access would occur, the property would be restored to same or better condition than existing prior to the project, and the local jurisdictions would be involved (Caltrans 2023a).

Seven of the facilities identified in Table 2-3 (River Otter Park, Meadowdale Park, Westacre Park, Roland Hensley Bike Park, Yolo Bypass Wildlife Area, Putah Creek Riparian Reserve, and UC Davis Arboretum and Public Garden) are located adjacent to the Caltrans I-80 ROW and are therefore currently subject to indirect air quality and noise impacts. Build Alternatives 2 through 6 would result in indirect air quality and noise impacts at these facilities due to proximity to construction activities and changes in long-term traffic volumes. Temporary indirect air quality and noise impacts due to construction activities and the standard measures to reduce potential noise and air quality impacts are described in Section 4.1.2.2 and 4.1.3. Build Alternatives 2

D:\AWE\20-018-003 Yolo CIA\VOL_80\IMXD\Yolo 80 Figure 2-2 Parks and Recreation Facilities in the Land Use Study Area 2020505.mxd Revised: 2022-08-30 By: GIS 9-16



Legend

- Project Limits
- Land Use Study Area
- Park and Recreation Facilities

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, AWE, 2021-2022
Date: 8/30/2022

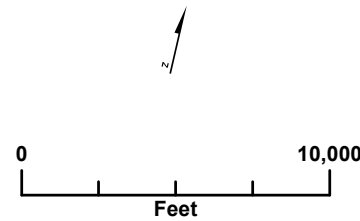


Figure 2-2
Parks and Recreation Facilities
in the Land Use Study Area
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

through 6 would widen to the outside on the north side of I-80 from post mile 0.1 to post mile 1.0 in Yolo County, bringing traffic slightly closer to the Toad Hollow Dog Park. Noise analysis determined that changes in long-term noise levels would be 0 - 2 A-rated decibels (dBA) greater than existing conditions, which would be barely perceptible, and the Toad Hollow Dog Park is more than 250 feet from the I-80 travel lanes, with an active railroad line and Second Street between the park and highway. Therefore, no perceptible long-term changes in noise and air quality would occur at this park. Indirect air quality and noise impacts as a result of the proposed Project would not be expected to result in substantial impairment to any of the facilities' activities, features, or attributes (Caltrans 2023a).

The Build Alternatives would replace the existing bicycle pathway pavement behind the gas station located north of West Capitol Avenue from post mile 9.15 to post mile 9.35. The existing bicycle pathway would be rerouted during repaving activities for up to two months, but repaving activities may occur at nighttime to minimize access disruption. To maintain access, bicycles traveling westbound would be redirected along West Capitol Avenue and bicycles traveling eastbound would be redirected along a short segment of sidewalk on West Capitol Avenue and use the crosswalk at the West Capitol Avenue/westbound I-80 off-ramp intersection. Bicyclists would then continue eastbound along West Capitol Avenue using the existing bicycle lane. Caltrans would add crosswalk pavement marking across the westbound I-80 off-ramp to West Capitol Avenue and near the existing West Capitol Avenue crosswalk. In addition, Caltrans would add advanced warning signs to alert the motorists traveling on the westbound I-80 off-ramp to West Capitol Avenue before reaching the proposed crosswalk. Caltrans would place signage as part of the TMP to note the access updates and identify the bicycle/pedestrian detours.

The Build Alternatives would also replace the existing bicycle pathway pavement from post mile 9.1 to the Yolo Causeway bridge deck approach at approximately post mile 8.9. While the existing Class I bicycle pathway is closed, a temporary bicycle pathway with K-rail barrier would be placed along the I-80 westbound on-ramp from West Capitol Avenue. Up to 100 linear feet of existing barrier near post mile 8.9 would be removed and realigned to allow bicycles to rejoin the existing Class I Bicycle Pathway along Yolo Causeway. The existing Class I bicycle pathway along the Yolo Causeway would not require closure during construction activities.

The Build Alternatives would extend the westernmost limit of the existing Class I bicycle pathway from I-80 along Yolo Causeway to connect to CR-32A. Once construction of the pathway extension along westbound I-80 off-ramp is complete, the Build Alternatives would conduct pavement rehabilitation from CR 32A to Levee Road. During pavement rehabilitation activities, Levee Road would be closed. Bicycles would be redirected along the newly constructed pathway extension on westbound I-80 off-ramp to access the existing Class I bicycle pathway along Yolo Causeway, which would be built prior to rehabilitation activities on Levee Road. Temporarily rerouting the bicycle paths would inconvenience bicycle pathway users.

Under all Build Alternatives, there would be temporary traffic delays and ramp closures on I-80/US-50 during construction that could result in temporary effects on access to recreation facilities in and adjacent to the Land Use Study Area. Because Build Alternative 7 would not add

new lanes but would repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore may result in fewer delays than those under Build Alternatives 2 through 6. In contrast, the “b” alternatives would require a longer construction period than the “a” alternatives, so the “b” alternatives may inconvenience travelers for a longer period. For all Build Alternatives, construction would occur in stages, so not all highway sections would be affected at the same time. Ramp closures are expected at night, when recreational trails and parks are closed or only lightly used.

2.3.2.2 No-Build Alternative

Under Alternative 1 (No-Build) there would be no change from existing conditions. Therefore, there would be no effect on parks and recreation resources in the Land Use Study Area.

2.3.3 Avoidance, Minimization, and/or Mitigation Measures

There would be no direct adverse effect on park facilities, so no avoidance, minimization, and/or mitigation measures are proposed.

Caltrans standard project features require the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to facilities, including parks, within the work zone. A TMP is a standard requirement that would be applied to the Project. The TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP. With these standard practices, no avoidance and minimization measures are required.

2.4 Farmlands

The California Department of Conservation FMMP produces maps and statistical data for evaluating effects on California’s agricultural resources. Agricultural land is rated based on soil quality and irrigation status. NEPA and the Farmland Protection Policy Act require coordination with the Natural Resources Conservation Service (NRCS) to examine the effects of farmland conversion before approving any federal action. Projects where farmland may be adversely affected require close coordination with the NRCS and the completion of a Farmland Conversion Impact Rating Form, which provides a basis for assessing the extent of farmland effects relative to federally established criteria.

The Williamson Act of 1965 is the state’s principal policy for the preservation of agricultural, open-space, and range land. The program encourages landowners to work with local governments to protect important farmland and open space. Landowners can enroll parcels for a minimum of 10 years. This program helps local governments to restrict land to agricultural and compatible open-space use. In doing so, land is assessed for property taxes at a rate consistent with its actual use, rather than the potential value of the land. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth.

2.4.1 Affected Environment

The Land Use Study Area includes several farmland areas, mostly located within unincorporated portions of Sacramento, Yolo, and Solano Counties (Figure 2-3). The western segment of the Land Use Study Area in Solano County (Segment 1a, Figure 1-1) consists of agricultural lands with areas classified by the FMMP as prime farmland and grazing land. These areas are also mapped as an “Agricultural Reserve” by Solano County, indicating an area that experiences high development pressure, but where the County encourages voluntary conservation easements to promote the viability of agricultural operations. East of the City of Davis, in unincorporated Yolo County (Segment 1c), agricultural, open space, and wildlife refuge areas border I-80 across the Yolo Causeway, with several areas classified as Prime Farmland, Farmland of Local Importance, Unique Farmland, and Grazing Land, and Farmland of Local Potential (these are areas with Prime or Statewide soils that are presently not irrigated or cultivated). At the northeastern end of the Project (Segment 2), the portion of the Land Use Study Area north of I-80 is within unincorporated Sacramento County and contains areas designated as Prime Farmland. In this area, the portion of the Land Use Study Area south of I-80 is within the City of Sacramento and contains several small areas of Farmland of Local Importance.

In Solano County, several of the parcels designated as Prime Farmland are also under Williamson Act Contracts (Figure 2-3). There is also a Williamson Act parcel within Yolo County on a parcel along the Yolo Causeway that is classified as Local Potential Farmland.

The other portions of the Land Use Study Area, including the City of Davis, City of West Sacramento, and City of Sacramento are not agricultural and are classified by the FMMP as Urban and Built-up Land, Other Land, or Water.

2.4.2 Environmental Consequences

2.4.2.1 Build Alternatives

The Project would include managed lanes on I-80/US-50 by widening the existing roadway through a combination of lane conversion, restriping, shoulder widening, and median reconstruction with a concrete barrier. All Build Alternatives would occur entirely within or almost entirely within the existing Caltrans ROW. No conversion of farmlands adjacent to the Project area would occur.

Build Alternatives 2 through 6, would add one lane in each direction primarily by expanding into the center median and other areas within the Caltrans ROW. Build Alternative 7 Repurpose HOV2+ would not change the overall number of lanes in the Project area and all work associated with this alternative would occur within the Caltrans right-of-way. Build Alternatives 2 through 7 would include one small area of new permanent easement for construction of a Park-and-Ride Facility; however, this would not be within an agricultural area or farmland. The alternatives with additional lanes in each direction would only expand in areas that are already designated for roadway purposes. The Project would not result in the conversion of any important farmland or Williamson Act land to non-agricultural uses.

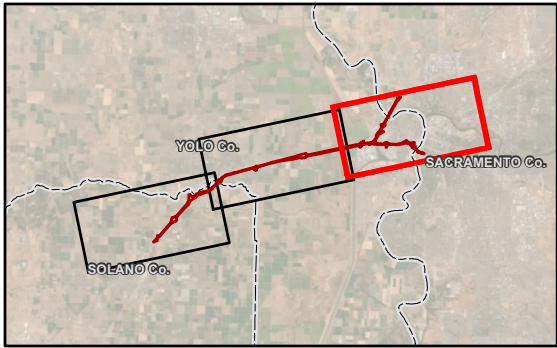
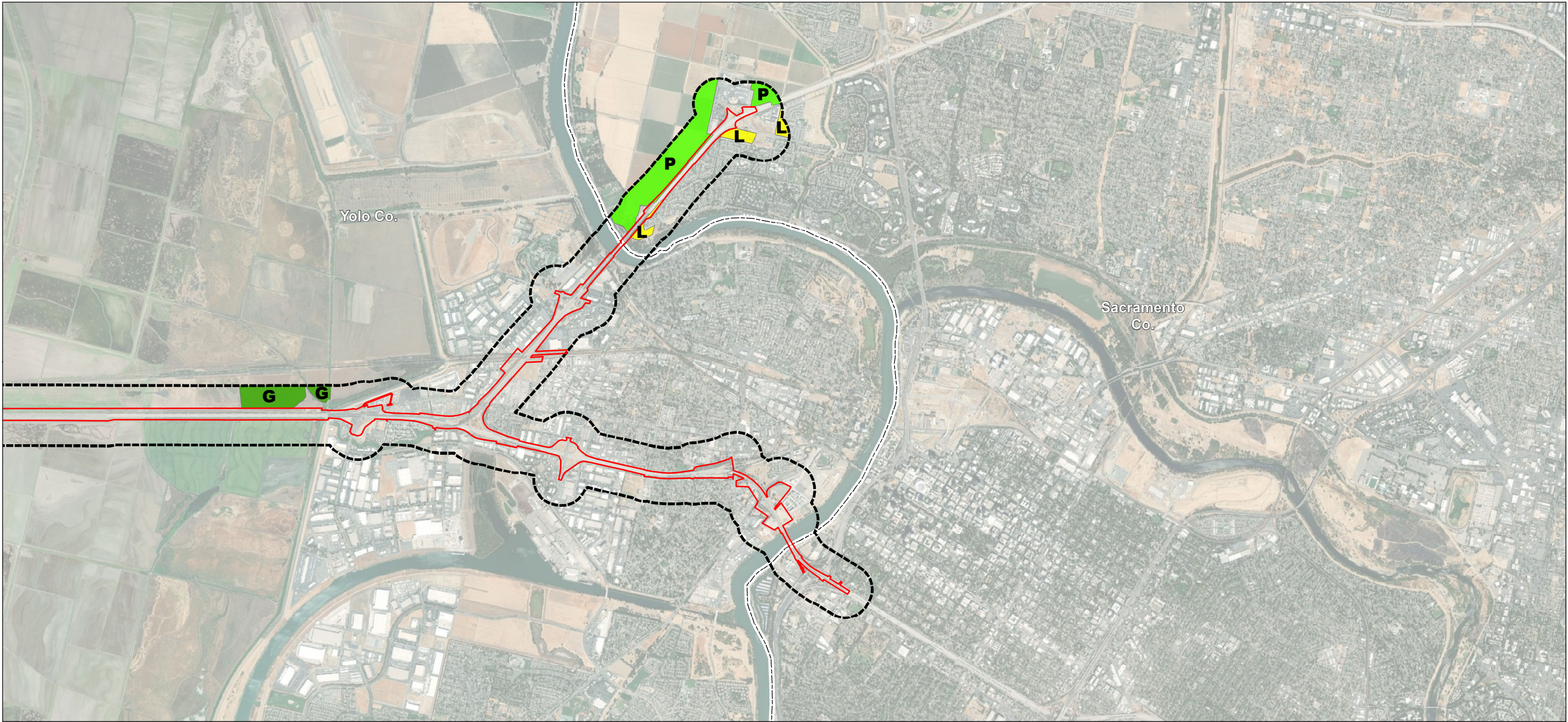
2.4.2.2 No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions or affect adjacent farmlands.

2.4.3 Avoidance, Minimization, and/or Mitigation Measures

There would be no effect on farmland, so no avoidance, minimization, or mitigation measures are proposed.

D:\AWE\20-018-003 Yolo CIA\Yolo_80\IMXD\Yolo 80 Figure 2-3 Farmland Mapped by the FMMP and Williamson Act Contracts 2020505.mxd Revised: 2022-08-30 By: GIS 9-16



Legend

- | | | |
|----------------------|----------------------------------|-------------------------------|
| Project Limits | P - Prime Farmland | LP - Local Potential Farmland |
| Land Use Study Area | L - Farmland of Local Importance | G - Grazing Land |
| Williamson Act Lands | | |

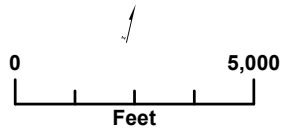


Figure 2-3
Farmland Mapped by the FMMP
and Williamson Act Contracts
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties,
California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, AWE, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/30/2022

Chapter 3 Growth

Growth inducement is defined as the relationship between the proposed transportation project and growth within the Project area. It is often defined as the measurable increase in population, housing, and/or employment that can be reasonably attributable to implementation of a given project. The growth inducement assessment examines the relationship of the proposed Project to economic and population growth or to the construction of additional housing in the Project area. It focuses on the potential for a project to facilitate or accelerate growth beyond planned developments, or influence the location, type, and rate of future growth and development.

3.1 Affected Environment

The MTP/SCS estimates that by 2040, the Regional Study Area will have added 620,000 people, as well as the jobs and housing to support them (Table 3-1) (SACOG 2019a). SACOG's estimated growth pattern for the region is built by examining market forces and policy/regulatory influences, and is based on adopted local government general plans, community plans, specific plans, and other local policies and regulations. Based on this analysis, the six-county region's projected housing and employment is expected to grow at a faster rate than the state and national average over the next 30 years (SACOG 2019a). In 2019, the population of the Regional Study Area totaled 2,324,773, representing approximately 6.22 percent of the state's total population. SACOG estimates that between 2016 and 2040, the Regional Study Area will grow by 26 percent for a total population of 2,996,832 by 2040 (SACOG 2019b).

Table 3-1. Forecast Growth in the Regional Study Area

Year	Population	Employees	Households	Housing Units
2016	2,376,311	1,060,751	881,799	921,123
2040	2,996,832	1,300,813	1,136,599	1,181,251
Change 2016 to 2040	26%	23%	29%	28%

Source: SACOG 2019b

Based on the *I-80/US-50 Travel Pattern Data Memorandum* prepared for the Project (Fehr & Peers 2021a), travelers of the I-80/US-50 corridor during the peak commute periods originate primarily in the Cities of Davis, West Sacramento, and Sacramento, although many travelers originate outside the SACOG travel demand model area (known as SACSIM). Based on the SACSIM analysis of existing conditions from the *I-80/US-50 Travel Pattern Data Memorandum*, the following traffic analysis zones have the highest number of origins or destinations during the morning and afternoon commute period for travelers crossing the Yolo causeway:

- City of Davis (East Davis, North Davis, Downtown)
- UC Davis
- City of West Sacramento (Industrial/Enterprise Boulevard, Southport)
- Downtown and Midtown Sacramento
- Sacramento City College
- CSU Sacramento

The *I-80/US-50 Travel Pattern Data Memorandum* notes that top origins and destinations during commute periods also include the following “gateway” locations for travelers with origins or destinations outside the SACSIM model area:

- I-80 West gateway, west of I-505 in Solano County
- I-80 East gateway, east of Yuba Gap in the North Lake Tahoe Basin
- I-5 South gateway at the Sacramento-San Joaquin County line
- SR 99 South gateway at the Sacramento-San Joaquin County line
- US-50 East gateway near Ice House Road in the South Lake Tahoe Basin

Land use changes in the Regional Study Area over the last 35 years have influenced regional travel patterns. For example, the UC Davis campus has expanded in the last 30 years and fueled residential development and growth in the City of Davis. West Sacramento has grown as a business, residential, and industrial center over the last two decades to provide new residential units within proximity to employment centers in Downtown Sacramento. These growth trends have contributed to changes in local traffic on I-80/US-50 in the Project corridor. Additionally, since I-80/US-50 serves a broader area for freight and regional and statewide traffic, growth in the Bay Area, Sacramento/San Joaquin Valley, and Sierra/Tahoe Region have also modified traffic patterns and volumes on I-80/US-50 in the Project area.

In recent decades, the Sacramento region has had tremendous population growth, leading to unprecedented rates of development and surging home prices (SACOG 2019b). Yolo County is the western edge of the Sacramento region, and an important part of the I-80/ US-50 corridor linking Sacramento to the Bay Area. Over the last two decades, Yolo County has experienced most of its growth within the incorporated cities; Yolo County had an estimated 2019 population of 220,500, with much of the population residing in the incorporated Cities of Davis (69,413), Woodland (60,548), West Sacramento (53,519), and Winters (7,315) (U.S. Census Bureau 2019). Yolo County continues to advocate for the protection of economically important agricultural resources and to direct growth into existing cities and unincorporated towns. In Sacramento County, development patterns between 1980 and 2005 were typified by low-density, generally suburban development on the edges of established communities. A consequence of these development patterns has been a reliance on automobile travel to serve long-distance trips between residential areas, employment opportunities, and other activity centers. In 2004, the SACOG Board of Directors adopted the Sacramento Region Blueprint, a smart growth vision for the region. The goal of this Blueprint was to integrate land use and transportation planning to curb sprawl and cut down on vehicle emissions and congestion to improve the quality of life for residents of the region. Using smart growth principles, the Blueprint encourages a variety of housing options closer to employment, shopping, and entertainment hubs, which gives options for people to walk, bicycle, or take public transportation to work and play.

The following sections describe growth-related policies and plans from jurisdictions along the I-80/ US-50 corridor. Table 3-2 provides a list of major development projects proposed along the I- 80 corridor.

Table 3-2. Major Development Projects along the I-80 Corridor

Project Name and Location	Jurisdiction	Project Description	Status
Olive Drive, City of Davis	City of Davis	The project would redevelop four existing single-family homes on 0.56 acres to a 47-unit high density multi-family apartment complex and 900 square feet of commercial space.	Environmental documents approved in November 2019, Recommended to Planning Department in April 2022
University Mall/ University Commons Redevelopment Project, City of Davis	City of Davis	Transit-oriented infill project, commercial and residential. Proposed project retains the existing 13,210-square foot Trader Joe's building and redevelops the rest of the site with 101,246 square feet of new commercial space.	Final City Council Approval granted on August 25, 2020. Consistent with February 2023 Environmental Consistency Analysis
Bretton Woods, City of Davis	City of Davis	Davis is annexing land from Yolo County and rezoning land from agricultural intensive to medium density residential, high density residential, residential greenspace overlay, urban agriculture transition area, and mixed use. This will pave the way for 325 single-family homes, 260 of which are for senior citizens, and an additional 150 are affordable senior apartments. The project also includes an approximately 3-acre activity and wellness center. The project is on a site north of Covell Boulevard and west of SR-113, at the intersection of Shasta Drive and West Covell Boulevard.	Currently undergoing planning review of the subdivision phases.
Palomino Place (formerly Wildhorse Horse Ranch)	City of Davis	If request for a general plan amendment and rezone is approved, then 18.35 acres of this 25-acre ranch would be developed for affordable housing. This infill site proposes a 129-unit community-centered housing mixed-use development., to include 40 accessory dwelling units (ADUs) and an option for up to 15 additional ADUs for a total of 169 to 184 units/	Planning application submitted July 2022
Shriner's Property (adjacent to proposed Palomino Place)	City of Davis	Proposed new residential neighborhood will include 1,100 low-, medium-, and high-density residential units on 140 acres of the 234-acre parcel, with 75 acres designated for parks, open space, greenbelts, and agricultural buffer.	Planning stage
Woodland Research & Technology Park Specific Plan, City of Woodland	City of Woodland	Woodland is pursuing a specific plan detailing a commercial mixed-use town center with 2.15 million square feet of non-residential building space for approximately 6,100 employees and 1,600 housing units. The project is located in the southern portion of Woodland's planning area, adjacent to the existing city limits, in an area bound by Farmers Central Road to the north, CR-101 to the east, SR-113 to the west, and CR-25A to the south.	Environmental analysis in progress.

Project Name and Location	Jurisdiction	Project Description	Status
West Sacramento Corporation Yard Relocation Project, City of West Sacramento	City of West Sacramento	West Sacramento proposes to construct a new 12.42-acre Municipal Corporation Yard Facility at 4300 West Capitol Avenue, a parcel which the city anticipates purchasing from the Port of West Sacramento.	Phase I of the project is complete. Phase II is dependent on funding.
West Capitol Avenue - Road Rehabilitation and Safety Enhancement Project, City of West Sacramento	City of West Sacramento	West Capitol Avenue is envisioned as the West Sacramento 's Downtown: a central core with a vibrant main street that takes advantage of its prime location; providing an attractive setting for a variety of land uses including the Civic Center, Community Center, Transit Hub; and providing residential, commercial and urban parks that are accessible via multiple modes of transportation. The primary goals are to repair deteriorating pavement; complete scalloped street sections; install drainage improvements, sidewalks, access ramps, signal modifications, separated/buffered bike lanes, street lighting, high-visibility crosswalks for safer pedestrian crossings; and reduce unnecessary vehicular travel lanes.	Construction is complete.
Liberty Specific Plan, City of West Sacramento	City of West Sacramento	The Paik family is proposing the development of a new community in Southport which would consist of up to 1,503 residential units, a 17-acre K-8 school, up to 10,000 square feet of retail commercial, plus parks, greenbelts, and trails. The proposed project requires approval of a General Plan amendment, Specific Plan, Amendment of the Southport Framework Plan, rezone, Conditional Use Permit, and a vesting master tentative map. This project is located in the Northwest Village of the Southport Framework Plan area and includes approximately 340 acres and is bounded on the east by the Sacramento River levee system, on the south by Davis Road, on the west by the Clarksburg Branch Line Trail, and on the north by Linden Road.	The project is currently undergoing staff review. Hearings and workshops on the project will be held on the project at dates yet to be determined.
Washington Specific Plan, City of West Sacramento	City of West Sacramento	A comprehensive update to the 1996 Specific Plan for the renovation of the Washington District into a transit-oriented development with mixed-uses including shopping, dining and work. Plan includes a circulation element.	Review and adoption Winter 2021
River One (Raley Landing)	City of West Sacramento	A recently extended development agreement for the open area on the Sacramento River confluence with the American River, in the northeast area of West Sacramento. The recent advancement of the development project includes plans to construct a hotel and condominium building with underground parking at the northeast corner of 3 rd Street and the Tower Bridge Gateway.	Project design approved December 2019.
Rivers Two, The Strand Apartments (Raley Landing)	City of West Sacramento	A 408-unit luxury apartment project east and west of Douglas Street within the Rivers Phase 2 subdivision.	Built in 2021

Project Name and Location	Jurisdiction	Project Description	Status
Jefferson Village Apartments	City of West Sacramento	A 332-unit multifamily development overlooking the Clarksburg Branch Line Trail between Lake Washington Blvd and Gateway Dr.	Design review administrative approval October 2019.
River Oaks Subdivision	City of West Sacramento	A subdivision for 115 single family homes on 19.3 acres along Village Parkway between Linden Road and Lake Washington Blvd.	Planning Commission approved plan February 2019.
Westgate Assisted Living (formerly Summerplace)	City of West Sacramento	A 94-bed assisted care and 54 memory care residential unit facility between Jefferson Boulevard and Gateway Drive,	Conditional use permit and tentative map plan extended to February 2020.
ACE Rail / San Joaquin Sacramento extension	San Joaquin Rail Commission	Service to Sacramento Valley Station via current route is capped by UPRR. UPRR Sacramento Subdivision will support additional San Joaquin service and new ACE service. Working with Butte CAG and SACOG to plan for further extension north to Yuba City/Marysville and Butte County.	Design phase 2021. Proposed project was approved by the San Joaquin Regional Rail Commission Board of Directors December 3, 2021
50 Waterfront Place	City of West Sacramento	Fairfield River Landing LLC is proposing to develop a 165-unit 8-story residential building at 50 Waterfront Place with underbuilding parking. The units are comprised of studio one- and two-bedroom units and includes a business services area, fitness area, dog wash bike storage and balconies.	Design review is required for compliance with the Washington Specific Plan design guidelines.
Lewis Homes	City of West Sacramento	The Planning Division received a design review application from Lewis Homes to construct a 210-unit (105 individual buildings) duplex gated 2-story multifamily rental community located at 3130 & 3350 Promenade Street. The amenities include garages, communal open spaces, swimming pool/spa outdoor seating/child play area and a small, fenced dog park. The project site is east of the existing Savannah Apartments.	The project requires approval from the Planning Commission for a conditional use permit to construct an all-residential project in a mixed-use zone.
Four 40 West (Formerly Alura)	City of West Sacramento	BlackPine has applied for a major map modification to the previously approved Alura map along with a new TSM to the west of the original one. The project as reconfigured will contain 106 single-family homes and a park site that is approximately 0.6 acre in size, along with street frontage improvements along E Street.	The project will also require design review. The project is currently undergoing completeness review.

Project Name and Location	Jurisdiction	Project Description	Status
Project Kind	City of West Sacramento	The Kind Project Investors submitted an application for a 148-unit, 3-story multifamily project. The project includes two 3-story buildings and ground level parking with 39 parking spaces. The project is located at 429 F Street / 600 4th Street, in the Washington neighborhood. On November 19, 2020, the Planning Commission approved the Washington Specific Plan. The Zoning Administrator approved a parking reduction for the project, reducing the number of required parking spaces from 68 to 39. On March 18, 2021, the Planning Commission will consider enhancements for the parking area, which is one of the provisions required in the Development Agreement.	On January 20, 2021, the City Council approved a Development Agreement for the project.
Kinect at Southport / Jefferson Village Apartments	City of West Sacramento	The City received a design review application from American Capital Group in December of 2018 for a 292-unit multifamily project at 2301-2425 Jefferson Blvd. (APN 046-010-004-000, 046-010-038-000, 046-010-051-000). The site is located along the east side of Jefferson Boulevard, south of Gateway Drive and north of Lake Washington Boulevard.	Design review approval on October 2, 2019. Minor zoning modification approved May 2020.
CalSTRS Phase 2 Design Review	City of West Sacramento	Ridge Capital, on behalf of CalSTRS, submitted a design review application for the second phase of their Headquarters at 200 Waterfront Place. The project includes five stories of office over a five-level parking garage and a stepped down frontage along 3rd Street that includes a lobby, café and childcare center. The property is subject to the River's Landing: River Three Development Agreement which was approved in 2006.	Approved by the City Council on May 15, 2019.
River Oaks Vesting Tentative Subdivision Map	City of West Sacramento	Seecon Homes, Inc. submitted an application for a tentative subdivision map for 115 single family homes on 19.3 acres. The proposed project consists of two villages bisected by Village Parkway. The project is located on both sides of Village Parkway between Linden Road and Lake Washington Blvd.	The project was approved by the Planning Commission on February 7, 2019.
Upper Westside Specific Plan, Sacramento County	Sacramento County	The project will be a transportation-oriented development due to its location and proximity to transportation infrastructure and major employment regions in the region. It will also incorporate many "complete streets" aspects such as pedestrian- and bicycle-friendly infrastructure, transit services, and some compact housing to encourage alternative modes of transportation within the area. The project area is currently zoned for agricultural use, but a general plan amendment is underway to alter the land use designations for the Upper Westside Plan area.	Application accepted on February 26th, 2019. Environmental analysis in progress.
The Core Natomas 300-unit Apartments, City of Sacramento	City of Sacramento	This project provides a 300-unit apartment complex with 506 parking spaces (including 203 garage types), two accesses (orchard and via planned cul-de-sac).	Construction completed in 2020.

Project Name and Location	Jurisdiction	Project Description	Status
River Oaks Phase 2 - 591 Single Family, City of Sacramento	City of Sacramento	This project provides 591 single-family lots on 83.3 acres of vacant land within the River Oaks Planned Unit Development.	Planning phase; environmental documents submitted in 2018.
Bell Avenue Warehouses Project, City of Sacramento	City of Sacramento	The proposed project would include development of the project site with two warehouse structures totaling approximately 339,549 sf as well as various other site improvements related to internal vehicle circulation, stormwater management, and landscaping. The warehouse situated on the eastern parcel would be approximately 259,749 sf and contain two depressed loading docks on the western face of the building. The warehouse on the western parcel would be approximately 79,800 sf and contain two depressed loading docks on the western face of the building. On-site parking would be provided by 277 proposed parking spaces.	Planning phase; environmental documents submitted in February 2020.
Rivers Oaks Marketplace, City of Sacramento	City of Sacramento	There is a plan amendment for four new commercial structures on a 3.91-acre parcel in the C-2-PUD (General Commercial-Park El Camino) Zone. This requires a Commission-level review for site plan and design review, conditional use permits, a tentative map, and a Planned unit development Schematic Plan Amendment.	Project construction would be anticipated to last approximately 16 months, beginning in April of 2021 and concluding in July of 2022. Construction would proceed in a single phase.
ParkeBridge Phase 4, City of Sacramento	City of Sacramento	The project proposes to construct 108 new detached, single-unit dwellings with four house plans on approximately 22 acres in the ParkeBridge Planned Unit Development.	Subdivision is currently under development
UC Davis West Village Expansion, City of Davis	UC Davis	200-acre mixed use neighborhood integrating student, faculty, and staff housing and educational and research facilities, all centered on a civic village square.	Under construction.
UC Davis Long Range Development Plan, City of Sacramento	UC Davis	The 2020 LRDP Update proposes general types of campus development and land uses to support projected campus population growth and enable expanded and new program initiatives. The proposed Aggie Square Phase I project consists of approximately 1,384,500-gross square feet of building space for education, research, residential and commercial uses and parking structure space.	Planning phase; environmental documents submitted in November 2020.

3.1.1 Yolo County

The *County of Yolo 2030 Countywide General Plan* (Yolo County 2009) includes goals and policies that guide land use and development including the location of uses, population, housing, and job growth. Yolo County maintains a strong focus on protecting agricultural and

open space resources and directing growth into existing incorporated cities and towns, as 93 percent of Yolo County remains in farmland and open space despite development pressures from the Sacramento and Bay Area metropolitan areas (Yolo County 2009). The county has remained largely an agricultural resource area with most growth occurring in its incorporated cities and unincorporated towns. Most of the new urban growth allowed under the Yolo County General Plan would occur within the existing unincorporated communities of Dunnigan, Knights Landing, Madison, Esparto, and Elkhorn. The town of Esparto has the majority of the new housing potential. Yolo County has adopted “smart growth” principals in its neighborhood and community design guidelines. The MTP/SCS forecast for unincorporated Yolo County includes 3,300 new jobs and 2,800 new housing units, and of this growth, 2,500 new jobs and 2,700 new housing units are at the UC Davis campus, as discussed in Section 3.1.3 UC Davis (SACOG 2019a). Along the I-80 corridor, unincorporated Yolo County land is limited to agricultural, open space, and wildlife refuge use between the incorporated cities of Davis and West Sacramento; this area would not be subject to future development. Nevertheless, projected growth in Yolo County could contribute to changes in traffic patterns in the Regional Study Area.

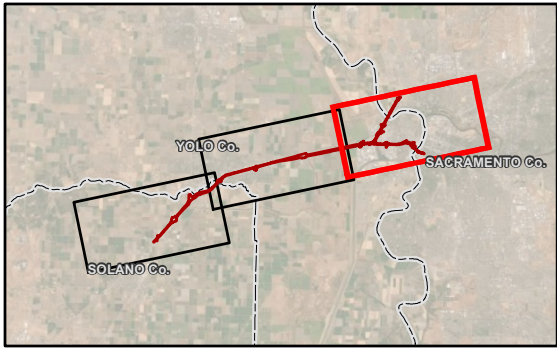
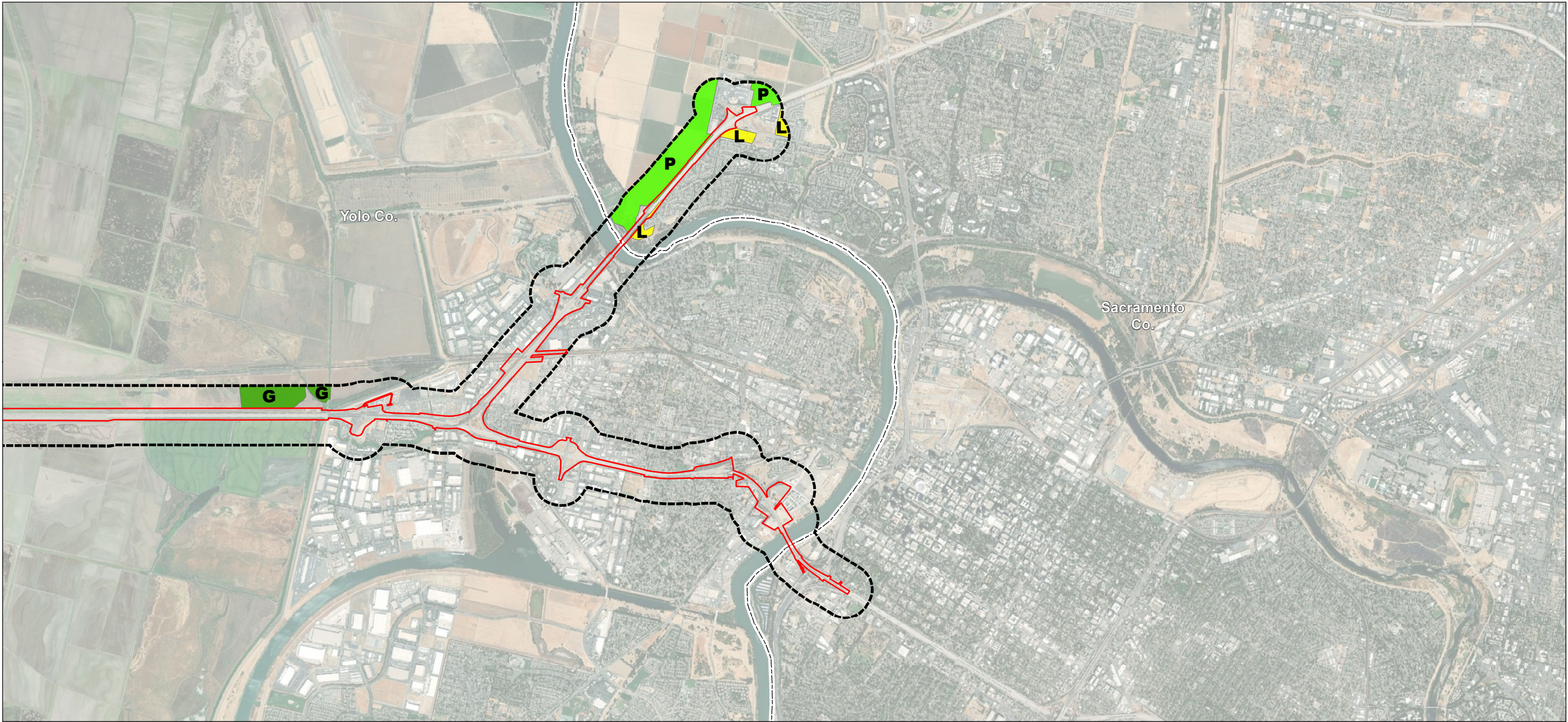
3.1.2 City of Davis

The City of Davis is the largest city in Yolo County with a 2019 population of approximately 68,500 people and 25,800 housing units. The City of Davis has limited new growth areas and has implemented “slow growth” policies since the mid-1980’s. The Davis General Plan reflects policies intended to manage growth; maintain existing community character as a small, University-oriented town surrounded by farmland, greenbelt, and natural habitat areas; and improve residential, office, and industrial areas (City of Davis 2007, 2017). The City of Davis adopted a housing/growth resolution in 2008 that establishes an annual 1 percent growth cap (approximately 260 units) not counting affordable housing, accessory dwelling units, and units in mixed-use buildings. The resolution allows the Davis City Council to grant exemptions for projects providing extraordinary community benefits. Consistency with the growth cap is evaluated each year by the Davis City Council. By 2040, the MTP/SCS forecast for Davis includes 1,630 new employees and 3,800 new housing units; most of this growth, 61 percent of the employment and 60 percent of the housing, is planned in established communities (SACOG 2019a).

3.1.3 University of California, Davis

UC Davis is a leading public research university and one of the ten campuses within the University of California system. From its humble beginnings as the 778-acre “University Farm,” UC Davis has grown to offer more than 100 undergraduate majors and nearly 90 graduate programs (UC Davis 2021). Student enrollment at UC Davis increased from 25,315 students in 2000 to 39,629 students in 2019 (City of Davis 2017; UC Davis 2021). The UC Davis LRDP (2018) provides the growth policies for the main Davis campus and Russell Ranch research lands, totaling about 5,300 acres in Yolo and Solano Counties. The LRDP estimates increases in student enrollment, employment (faculty and staff), and campus student housing, and academic building space. The MTP/SCS forecasts 2,500 new jobs and 2,700 new housing units at the UC Davis campus (SACOG 2019a). Planned growth in student enrollment and employment at UC Davis contribute to traffic on I-80/US-50 in the Project area.

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 2-3 Farmland Mapped by the FMMP and Williamson Act Contracts 2020505.mxd Revised: 2022-08-30 By: GIS 9-16



Legend

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|----------------------|----------------------------------|-------------------------------|
| Project Limits | P - Prime Farmland | LP - Local Potential Farmland |
| Land Use Study Area | L - Farmland of Local Importance | G - Grazing Land |
| Williamson Act Lands | | |

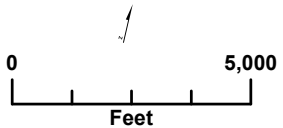
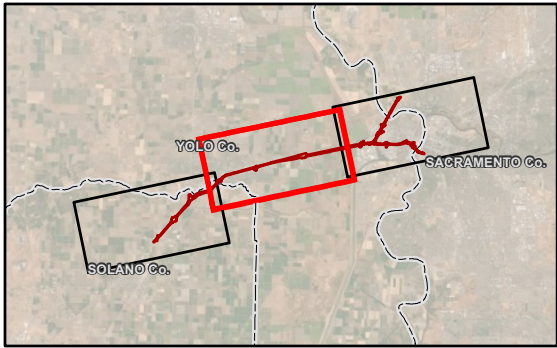
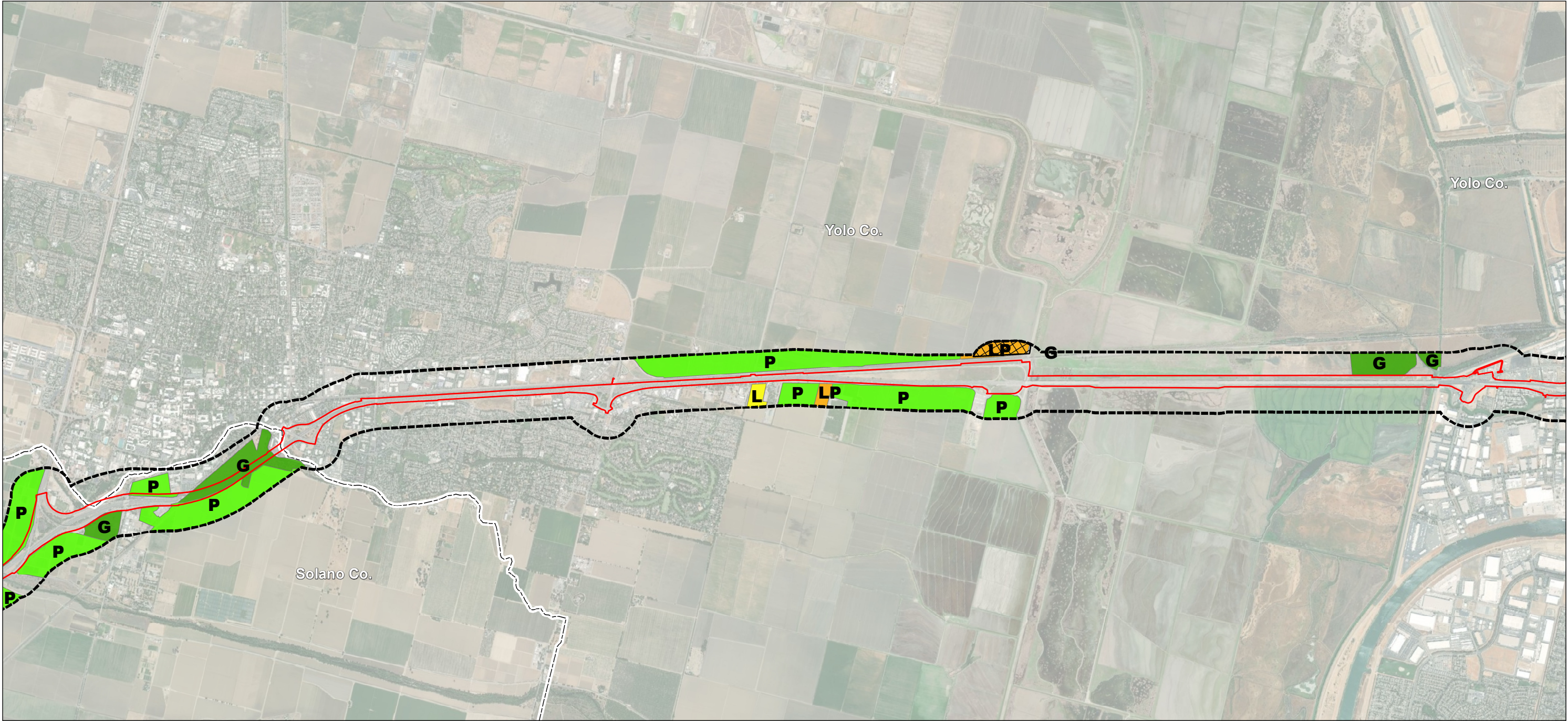









Figure 2-3
Farmland Mapped by the FMMP
and Williamson Act Contracts
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties,
California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: CalTrans, Stantec, AWE, 2021-2022
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Date: 8/30/2022

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|  Project Limits |  P - Prime Farmland |  LP - Local Potential Farmland |
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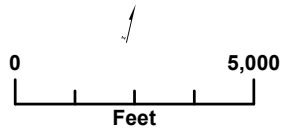
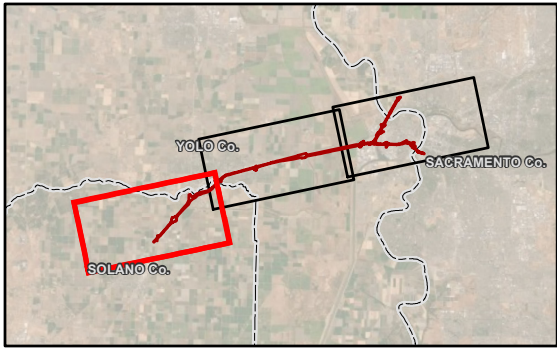
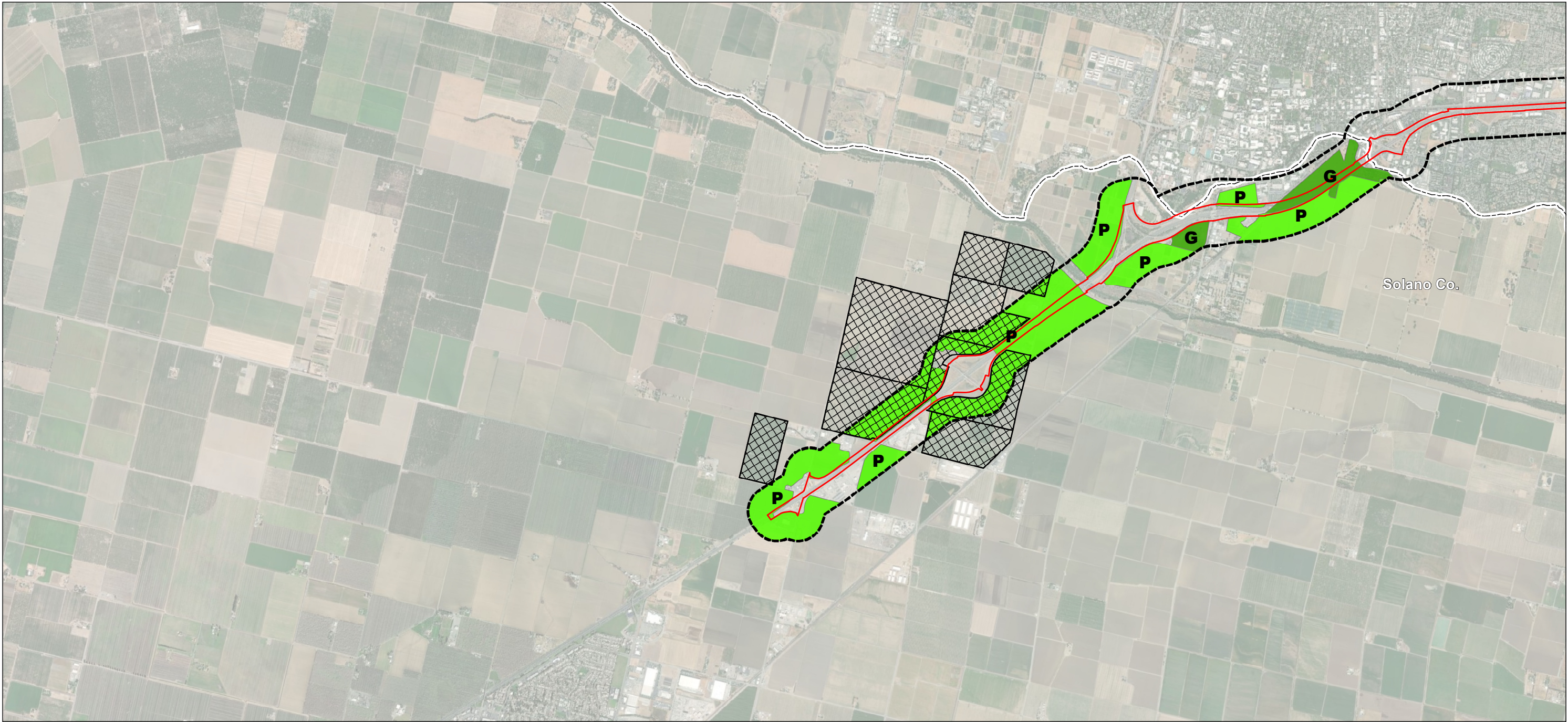









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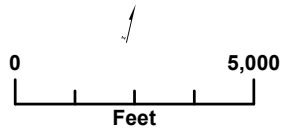


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3.1.4 City of West Sacramento

The City of West Sacramento has been a heavy employment base for the region, with the Port of (West) Sacramento and associated industrial and manufacturing uses, since the 1950's (City of West Sacramento 2016). In more recent years, the City of West Sacramento has shifted toward a more balanced mix of employment and housing, resulting in considerable residential growth over the last 20 years. The city's population has grown from 31,615 in 2000 to 53,151 in 2019 (U.S. Census Bureau 2019). In the past decade, the pace of residential development in West Sacramento has intensified. Apart from the riverfront area, much of the northern half of the city is developed, though significant infill opportunity exists. West Sacramento's recent development focus has been mixed-use, high-density projects along the riverfront, including the Bridge District Specific Plan area, the proposed Pioneer Bluff area, and revitalization of the Washington Specific Plan area (SACOG 2019b). Residential growth over the last 20 years has focused on the Southport area; begun in 2001, the Southport residential area is now nearly built out. The MTP/SCS forecast for West Sacramento includes 16,590 new employees and 16,400 new housing units by 2040 (SACOG 2019a). Much of this development would occur in infill and redevelopment opportunities. Due to its location directly across the Sacramento River from Downtown Sacramento, and the type of development planned, West Sacramento is projected to become part of the urban core of the Sacramento region.

3.1.5 City of Sacramento

The City of Sacramento is centrally located within Sacramento County and is the largest city in the SACOG region, with 29 percent of the region's jobs and 21 percent of the region's housing units (SACOG 2019a). The City of Sacramento is projected to increase in population from approximately 513,624 in 2019 (U.S. Census Bureau 2019) to approximately 640,400 in 2035 and will require an additional 68,000 housing units by 2035 (City of Sacramento 2011). To meet forecasted housing needs, the City of Sacramento is trending toward more multifamily infill development, instead of the historical trend of single-family residential growth in outlying areas. The MTP/SCS forecast includes 73,510 new housing units and 56,210 new employees by 2040 in the City of Sacramento, with approximately 48,510 new housing units and 32,210 new employees in the central city area through primarily infill and redevelopment projects (SACOG 2019a). Adding significant new housing to the central city area would provide a better jobs/housing ratio and help reduce regional VMT (SACOG 2019a). The small portion of the Project limits located in the City of Sacramento (US-50 from Sacramento River to the US-50/I-5 interchange) is a developed, urban corridor with limited new growth potential.

3.2 Environmental Consequences

Caltrans has developed guidance for determining whether a proposed project may influence growth either directly or indirectly. Growth inducing projects are those that result in a direct or indirect measurable increase in population, housing, and/or employment. Evaluation of a transportation project's potential to induce growth focuses on assessing the project's potential to facilitate or accelerate growth beyond planned developments, or influence the location, type, and rate of future growth and development. As noted in the Caltrans *Guidance for Preparers of Growth-related, Indirect Impact Analyses*, accessibility is the most direct link between

transportation and land use and refers to a project's potential to reduce travel costs, either in terms of money or time, potentially enhancing the attractiveness of surrounding land to developers and consumers. Changes in accessibility provided by a transportation project may unintentionally result in changes to the spatial distribution of development over time. By facilitating land use changes, one outcome can be growth-related effects on environmental resources.

3.2.1 Build Alternatives

Using the Caltrans guidance for “first-cut screening,” it is reasonably foreseeable that alternatives that add capacity to the highway may cause indirect project-related growth but not to the extent that it would impact resources of concern. Per SER guidance, the results of the first-cut screening are documented below. No additional growth analysis is required.

Screening Question 1: To what extent would travel times, travel cost, or accessibility to employment, shopping, or other destinations be changed? Would this change affect travel behavior, trip patterns, or the attractiveness of some areas to development over others?

Build Alternatives 2 through 6 would add capacity to highway within the Project corridor. The purpose of the Project is to improve traffic flow, help reduce congestion, and increase multi-modal opportunities for travel on the highway network. Roadway improvements such as widening, modification of overcrossing and undercrossing structures, and the addition of managed lanes, would increase the capacity of I-80/US-50. Build Alternatives 2 through 6 would add capacity to I-80/US-50 within the Project corridor by adding managed lanes. The “b” alternatives under Build Alternatives 2 through 6 would add additional operational capacity through the construction of the I-80 connector ramp. Build Alternatives 7a and 7b would repurpose existing lanes as managed lanes and would not add capacity. However, Build Alternative 7b would include the construction of the I-80 connector ramp, which would add operational capacity.

Based on the *I-80/US-50 Managed Lanes Transportation Analysis Report* (Fehr & Peers 2023), Build Alternatives 2 through 5, which add managed lanes, would add capacity, increase the p.m. peak hour volume (i.e., number of vehicles), and decrease the vehicle hours of delay through the Project corridor when compared to the No-Build Alternative under future (2049) conditions. Despite the added capacity, congested conditions would still be expected in both directions since the forecast p.m. peak hour demand would exceed capacity under all these alternatives. Build Alternative 6, which would add a transit-only lane, and Build Alternative 7, which would repurpose an existing lane to HOV, would not increase the p.m. peak hour volume or decrease the vehicle hours of delay compared to the No-Build Alternative. Under Build Alternative 6 and 7, and No-Build future conditions, considerable congestion would still occur in the Project corridor. Refer to Chapter 5 Traffic and Transportation for results of the Transportation Analysis Report.

These improvements would create road capacity that would induce travel on I-80/US-50. The project expands the capacity of a critical bridge link in the regional network between the Bay

Area and Sacramento (plus destinations beyond). The traffic study prepared for the Project used the SACSIM19 model and NCST Induced Travel Calculator to analyze the induced travel generated by the project alternatives, including changes in travel patterns, trip lengths, route changes, and mode shifts. Induced travel is the increase in the potential demand for travel due to the economic effect of reducing travel time and travel costs. Based on the analysis, travel time savings under all Build Alternatives are sufficient to induce new vehicle trips and increase regional vehicle miles traveled (VMT). In the long term, much higher levels of congestion would exist under the No Build Alternative, resulting in traffic re-routing long distances during peak periods to avoid congestion, so the improved travel times under the Build Alternatives would keep traffic on the most direct freeway routes, causing a reduction in long-term regional VMT compared to the future No-Build Alternative.

The *I-80/US-50 Managed Lanes Transportation Analysis Report* (Fehr & Peers 2023) evaluates changes in travel modes. Most Build Alternatives show an increase in vehicle occupancy (persons per vehicle) under peak-period conditions compared to the No-Build Alternative. The Build Alternatives have a modest effect on transit ridership. Projected transit ridership is higher compared to the No Build Alternative due to the improved travel time on I-80 and US 50 with the planned improvements. Build Alternative 6, which provides a transit-only freeway lane, has the highest increase in daily ridership, 8.5 percent, due to the improved transit travel time.

The introduction of tolls can influence travel patterns by deterring users who would take an alternative route to avoid the added cost. For the proposed Build Alternatives, tolls are only applied in the new or repurposed lane, and all Build Alternatives maintain general purpose lanes that can be used without a fee. For these reasons, tolls associated with Build Alternatives 3 through 5 are not expected to significantly deter users or modify traffic patterns due to toll cost.

The travel cost and travel time improvements with the Build Alternatives may influence land use development patterns and rates, as discussed below.

Screening Question 2: To what extent would change in accessibility affect growth or land use change—its location, rate, type, or amount?

The rate and location of regional growth and land use change may be influenced by travel time and travel cost for residents and workers. Improvements in access, traffic conditions, and lower travel costs can influence the attractiveness of some areas over others for future development. Induced travel assessments need to consider future land use sensitivity to these changing conditions.

The traffic analysis for the Build Alternatives considers expected demand and existing conditions that have arisen from past development trends and projected future development. The VMT predictions in the *I-80/US 50 Managed Lanes Transportation Analysis Report* use the SACSIM land use, population and employment forecasts based on planned land use supply in local general plans and the proposed network modifications contained in the MTP/SCS project list. As noted in the *I-80/US 50 Managed Lanes Transportation Analysis Report*, the SACSIM model is not directly sensitive to land use allocation changes due to roadway capacity increasing projects, but includes accessibility variables (e.g., accessibility, density, proximity to

transit, and street pattern) that quantify land-use activities, which affect the number of trips as well as other choices in the model for the VMT analysis. (Fehr & Peers 2023)

By improving highway capacity and peak-hour travel times, Build Alternatives 2 through 5 would help accommodate planned growth on a regional level. These alternatives would not, however, remove an impediment to growth, provide an entirely new public facility, or provide new access to previously unserved areas.

The highway capacity enhancements are planned along an existing freeway corridor through agricultural lands, open space preserve, and within urbanized areas of the cities of Davis, West Sacramento, and Sacramento. Areas of new residential development along the I-80 corridor are limited by floodplain conditions, long-term wildlife refuge and agricultural preserves, and built-out conditions in city limits.

By increasing freeway capacity and reducing travel costs, the Build Alternatives could change the rate of development expected compared to the No-Build condition. Since I-80 is a key link between the Sacramento and Bay Area, and homes in the Sacramento area are typically more affordable than homes in the Bay Area, the improved travel times on I-80 in the Project corridor could influence more Bay Area residents to move east to the Sacramento area and commute to job centers. However, other bottlenecks on I-80 and other highways into the Bay Area west of the Project (e.g., I-680, I-580, I-880, SR-37, SR-4) may deter commuters from Sacramento and outlying areas to the Bay Area. Within the Community Study Area, planned development at UC Davis and West Sacramento may benefit from the transportation improvement provided under the Project, making these areas more attractive and changing the rate at which planned development would occur along the corridor. Improving travel times and capacity along I-80 is not expected to stimulate growth into areas where development is not planned, as other impediments to growth (e.g., floodplain conditions, long-term wildlife refuge and agricultural preserves, and built-out conditions in city limits), market conditions, and local land use policies are a greater influence on land use change than roadway capacity.

Screening Question 3: To what extent would resources of concern be affected by this growth or land use change?

Resources of concern include farmlands, open space, water supply, and air quality. Growth in the region has driven conversion of farmland and open space areas to developed uses; these are the primary resources of concern affected by regional growth. Regional development has also increased pressure on existing water supplies to serve new urban areas, and contributed to air quality and greenhouse gas emissions in an air basin that does not meet attainment goals for pollutants like particulate matter (PM) and ozone. (SACOG 2019). Improvements to travel time and cost could alter the rate at which regional development occurs, adding pressure on resources of concern, including agricultural lands and water supplies. Areas of new development in the Regional Study Area are expected to occur in areas already planned for growth by local agencies. Smart growth policies in these existing communities prioritizes infill and redevelopment projects, which are not expected to cause effects on environmental resources of concern. Planned new development in previously undeveloped or agricultural areas includes residential and commercial/industrial uses at UC Davis and in West Sacramento

(Table 3-2), which may impact farmlands. However, this development is limited by land use policies, agricultural preserves, and floodplains.

Conclusion

In summary, Alternatives 2 through 5 would improve traffic operations and would accommodate planned growth. The “b” alternatives would further improve traffic operations compared to the “a” alternatives. The Build Alternatives would not directly increase development of residential land uses, encourage growth outside of existing growth boundaries, or alter existing access to residential and employment areas. No direct or indirect adverse effects associated with growth would be anticipated with implementation of Build Alternatives 2 through 5.

Build Alternatives 6 and 7 would not improve future traffic operations compared to the No-Build Alternative and therefore would not accommodate planned growth or encourage growth in the region. No adverse effects associated with growth would be anticipated with implementation of Alternatives 6 and 7.

3.2.2 No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect growth. Under future No-Build conditions, deteriorating traffic conditions on I-80/US-50 could deter development that would rely on the freeway corridor.

3.3 Avoidance, Minimization, and/or Mitigation Measures

No adverse effects of growth are anticipated under any Build Alternative. No avoidance, minimization, or mitigation measures are required.

Chapter 4 Community Character and Cohesion

Community character is an amalgam of various elements that give neighborhoods their distinct “personality”, and may include a neighborhood’s land use, urban design and architecture, historic resources, visual resources, socioeconomics, traffic and noise. Cohesion is an important characteristic of a community that is a measure of the degree to which the residents have a “sense of belonging” to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, generally due to continued association over time. Cohesion also refers to the degree of interaction among the individuals, groups, and institutions that make up a community. Cohesive communities are indicated by various types of social characteristics, such as longer lengths of residency, home ownership, ethnic homogeneity, and high levels of community activity. Transportation projects can divide cohesive neighborhoods if they act as a physical barrier or are perceived as a psychological barrier by residents, or if they isolate a portion of a homogeneous neighborhood.

Prior to beginning the assessment of community character, an inventory of existing conditions was conducted. Aerial base maps depicting existing buildings, transportation facilities, land uses, property ownership (e.g., rights of way), and neighborhood features were developed. Available resources and maps from local planning agencies were also consulted. Demographic data from the U.S. Census Bureau was queried to characterize existing population, housing characteristics, and economic conditions and trends. The community demographic data is also used to support the environmental justice analysis. The following sections describe population and housing, economic conditions, community facilities and services, environmental justice populations, and equity within the Community Study Area.

4.1 Population and Housing

This chapter identifies and analyzes the existing and projected demographic characteristics of both the Community Study Area and Regional Study Area, considering several topics such as population, race and ethnic composition, age, community facilities, economic conditions, and housing. Comparisons of the local, regional, and state demographic data are made to provide a sense of the qualities unique to the Community Study Area. Sources for this information include the 2019 U.S. Census, SACOG, and Yolo County. The Regional Study Area for the Community Character analysis is defined by the SACOG association area, which is made up of western El Dorado, western Placer, Sacramento, Sutter, Yolo, and Yuba Counties and their 22 cities. The Community Study Area for the Community Character is defined by the outer boundary of all census tracts and census block groups that are adjacent to the Project (Figure 1-4, Table 4-1). The U.S. Census Bureau divides counties into census tracts, and census tracts are made up of census blocks. Some statistics presented in this chapter are available by census blocks, while others are only available by census tract. Where available, data is provided to the census block group level. The Build Alternatives would not result in the displacement or relocation of any residence or business; therefore, further evaluation of displacement and relocation is not included in this chapter.

Table 4-1. Community Study Area Census Tracts and Block Groups

County	Census Tract	Census Block Group
Sacramento	21	1, 3
Sacramento	22	1, 2
Sacramento	70.17	1
Sacramento	70.20	1, 2
Yolo	101.02	1, 3
Yolo	102.01	1
Yolo	102.03	1, 2, 3, 4
Yolo	102.04	1, 2, 3
Yolo	104.01	1, 2
Yolo	105.01	2
Yolo	105.05	2
Yolo	106.02	2, 3, 4
Yolo	106.05	2
Yolo	106.06	4, 5
Yolo	106.07	1, 2, 3
Yolo	106.08	1, 2, 3
Yolo	107.01	4
Yolo	112.06	3
Solano	2533	2
Solano	2534.02	1

Source: U.S. Census Bureau 2019

4.1.1 Affected Environment

4.1.1.1 Regional Population Characteristics

In 2019, the population of the Regional Study Area totaled 2,324,773, representing approximately 6.22 percent of the state's total population. Over the next 25 years, the Regional Study Area is estimated to grow by 33 percent for a total population of 3,092,065 by 2045 (SACOG 2019a). Table 4-2 provides 2019 population for the state, Regional Study Area, and Community Study Area; information for Yolo County and the Cities of Davis, West Sacramento, and Sacramento are also provided for context. The Community Study Area population represents less than 3 percent of the Regional Study Area population.

Table 4-2. Current Population (2019)

Area	2019 Population
California	39,283,497
Regional Study Area	2,488,449
Community Study Area	61,065
Yolo County	217,352
City of Davis	68,543
City of West Sacramento	53,151
City of Sacramento	500,930

Source: U.S. Census Bureau 2019, Table B03002

4.1.1.2 Race and Ethnicity

The racial characteristics of the Regional Study Area and Community Study Area are presented in Table 4-3. The Regional Study Area reflects a population that is majority white; the Community Study Area is slightly more ethnically diverse than the Regional Study Area, and less ethnically diverse than the state as a whole. Whites account for 44.5 percent of the Community Study Area's population, with Hispanic or Latinos (non-white) making the next highest majority at 28.4 percent, which is higher than the Regional Study Area (22 percent). People identifying as Native American, Hawaiian or Pacific Islander, and Other Race ethnicities make up a relatively small percentage of the Community Study Area's population, at 0.2, 1.0, and 0.2 percent, respectively. People of black ethnicity make up 4.7 percent of the Community Study Area, which is lower than the Regional Study Area (6.5 percent) and the state (5.5 percent). People of Asian descent account for 16 percent of the Community Study Area, which is higher than either the Regional Study Area (13 percent) or state as a whole (14.3 percent).

The Community Study Area has a racial diversity similar to the Regional Study Area with a few exceptions. For purposes of this analysis, a 5 percent difference would indicate a distinctive change in the population makeup between the Community Study Area and Regional Study Area. When compared to the Regional Study Area, the Community Study Area differs in population percentages by race/ethnicity: it has fewer whites (7.6 percentage difference) and more Hispanic or Latinos (6.2 percentage difference). Compared to the state, the Community Study Area has more whites (7.3 percentage difference) and fewer Hispanic or Latinos (10.6 percentage difference).

Homogeneity of the population may contribute to higher levels of cohesion. Communities that are ethnically homogeneous often speak the same language, hold similar beliefs, and share a common culture, and are therefore more likely to engage in social interaction on a routine basis. The Community Study Area is ethnically diverse with 44.5 percent white, 28.4 percent Hispanic or Latino, 16.0 percent Asian, and 4.7 percent black or African American populations. Therefore, homogeneity is not a strong factor in community cohesion in the Community Study Area.

Table 4-3. Racial Distribution of Area Population

Area	Percent of Total Number of People ^[1]							
	Non-Hispanic							Hispanic or Latino of any race
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other races	Two or more races	
California	37.2	5.5	0.4	14.3	0.4	0.3	3.0	39.0
Regional Study Area	52.1	6.5	0.4	13.0	0.8	0.3	4.8	22.2
Community Study Area	44.5	4.7	0.2	16.0	1.0	0.2	5.0	28.4
Yolo County	46.7	2.4	0.3	13.9	0.4	0.2	4.5	31.6
City of Davis	55.5	2.1	0.4	22.7	0.3	0.4	5.1	13.6
City of West Sacramento	45.9	4.6	0.3	10.5	1.0	0.1	7.4	30.1
City of Sacramento	32.4	12.7	0.4	18.6	1.7	0.4	4.9	28.9

Notes: 1. Percentages do not total to 100 due to margin of error and rounding.

Source: U.S. Census Bureau 2019, Table B03002

4.1.1.3 Age

As shown in Table 4-4, the age demographics of the Community Study Area are similar to the Regional Study Area. The Community Study Area reflects a notably lower percentage of elderly (over the age of 65) population (10.4 percent) than the Regional Study Area (15.0 percent). Additionally, the percentage of people under the age of 18 in the Community Study Area (21.7 percent) is slightly lower than the Regional Study Area (23.3 percent). Elderly and young population groups are considered more susceptible to the negative environmental effects resulting from construction projects (e.g., health impacts, air quality, noise, etc.). The World Health Organization (2010) references several epidemiological studies that have identified the elderly and children as subgroups more sensitive to the harmful effects of air pollution than the general population (World Health Organization 2010). When compared to the Regional Study Area as a whole, the Community Study Area does not have a disproportionate percentage of population that is young or elderly.

Communities with a higher percentage of elderly residents (65 years or older) tend to demonstrate a greater social commitment to their communities. This is because the elderly population, which includes retirees, often tend to be more active in the community as a result of

having more time available for volunteering and participating in social organizations. The Community Study Area has a lower elderly population (10.4 percent) than the Regional Study Area (15.0 percent). There were no concentrated areas of elderly population identified within the Community Study Area (Table 4-25 shows percent elderly population by census tract).

Table 4-4. Age Statistics

Area	Total under 18		Total 18 to 64		Total Elderly (65+)		Percent under 18 and Elderly	Median Age
	Total	Percent of Population	Total	Percent of Population	Total	Percent of Population		
California	9,022,146	23.0	24,775,310	63.1	5,486,041	14.0	36.9	36.5
Regional Study Area	579,592	23.3	1,536,730	61.8	372,127	15.0	38.2	37.3
Community Study Area ^[1]	13,240	21.7	41,478	67.9	6,347	10.4	32.1	34.6
Yolo County	46,026	21.2	144,930	66.7	26,396	12.1	33.3	31.0
City of Davis	10,234	14.9	50,564	73.8	7,745	11.3	26.2	25.5
City of West Sacramento	13,875	26.1	33,183	62.4	6,093	11.5	37.6	34.3
City of Sacramento	115,731	23.1	319,570	63.8	65,629	13.1	36.2	34.5

Source: U.S. Census Bureau 2019, Tables B01001 and B01002

¹Age data is presented for all census tracts in the Community Study Area.

4.1.1.4 Neighborhoods/Communities/Community Character

The Community Study Area comprises multiple communities in Yolo and Sacramento Counties. Communities are often delineated by physical barriers such as transportation infrastructure, large open spaces, and natural features such as rivers. The Community Study Area is divided from north to south by I-80 and State Route 51/Business 80/US-50, and from east to west by the Yolo Bypass Floodway, State Route 113 in Davis, and the Sacramento River in West Sacramento and Sacramento. Pedestrian and bicycle crossing is limited over the river and over/under freeways and the floodway. Information about the Community Study Area neighborhoods is described throughout Chapter 4 of this report. The Community Study Area includes portions of the following neighborhoods, described west to east.

Solano County

The western segment of the Community Study Area begins in Solano County (Segment 1a) and consists of agricultural lands with few residents. Approximately 80 percent of the land in Solano County is agricultural or open space. Pockets of industrial properties are located along the I-80 corridor, such as between the Pedrick Road and Kidwell Road exits with facilities such as the CEMEX Dixon Tremont Concrete Plant. Based on the population density being low, community cohesion in unincorporated Solano County within the Project corridor is low.

City of Dixon

The City of Dixon is located in northeastern Solano County and along I-80 within the Community Study Area. Dixon is characterized by its agricultural small-town character and is a community ringed by agricultural and open space lands. Dixon is a hub for grain, alfalfa, and dairy farming and has a long history in the sheep industry. The City hosts an annual sheep festival known as Lamb Town and the annual Dixon May Fair, the oldest state fair in California. The City of Dixon consists of pedestrian-oriented homes and businesses that are no more than three stories tall. I-80 serves as a prominent gateway to the City of Dixon with a retail and service center geared towards highway travelers consisting of restaurants, gas stations, and motels. Based on the walkability and public space and housing design, social cohesion in the City of Dixon is moderate to high.

UC Davis Campus

I-80 crosses Putah Creek South Fork into the South Campus of UC Davis. Once I-80 crosses into Yolo County (Segment 1b), it is surrounded by the UC Davis 5,300-acre campus and associated agricultural research lands and open space, including the UC Davis Arboretum. The campus infrastructure encourages bicycling and walking with its many bike circles, wide bike lanes, and traffic signals specifically for bikes. Based on the large percentage of rental housing, small average household size, and transient student population, social cohesion at the UC Davis campus is low.

City of Davis

Between the Richards Boulevard and Mace Boulevard interchanges, the City of Davis' South and East Davis neighborhoods include a mix of residential and commercial land uses. Areas immediately adjacent to I-80 in the City of Davis are characterized by multi-family residential, business, office, and commercial uses. The City of Davis has a small-town atmosphere and an emphasis on parks and open spaces. It is a university town, with nearly one-third of all housing units occupied by students (Davis State of the City 2017). The Davis Farmers Market is held year-round on Wednesdays and Saturdays in Central Park. The City of Davis has a reputation for excellent public schools, a walkable and bikeable town, and vibrant arts community influenced by the university offerings. Davis has also been a "slow-growth" city, resulting in housing shortages and high real estate prices. Based on the walkability, public space and housing design, racial diversity, and commute patterns indicating people work where they live, social cohesion in the City of Davis is moderate to high.

Yolo County

The Community Study Area east of the City of Davis (Segment 1c) is located within unincorporated Yolo County. Yolo County is typified by its small communities and rural character with over 93 percent of the county in farmland and open space. This portion of the Community Study Area is composed of agricultural and open space, as well as a wildlife refuge that borders the highway across the Yolo Causeway. The Yolo Causeway is a 3.2-mile-long elevated section of I-80 linking the cities of Davis and West Sacramento across the Yolo Bypass floodplain. The Yolo Bypass Wildlife Area is located within the Yolo Bypass, a flood control structure within the historic Yolo Basin floodplain. Based on the population density being low, social cohesion in unincorporated Yolo County within the Project corridor is low.

City of West Sacramento

In West Sacramento, the highway passes through the dominantly commercial and industrial areas along West Capitol Avenue and Industrial Boulevard. North of the I-80/US-50 interchange (Segment 2), I-80 is fronted by industrial, commercial, and business park areas. East of Harbor Boulevard (Segment 3a), US-50 passes adjacent to older and newer residential neighborhoods in the City of West Sacramento, including West Capital, Triangle (Bridge District), Old West Sacramento and Pioneer Bluff.

Old West Sacramento is a hub for deep sea shipping and farming productions and a traditional neighborhood where homes date back to the 1900s with great pride of ownership. Pioneer Bluff is a recent mixed-use development area along the Sacramento River; and the Triangle or Bridge District is a modern mixed-use redevelopment area near Raley Field with townhomes, condominiums, and single-family residences. The West Capitol neighborhood is primarily a light industrial with pockets of low- and high-density residential.

Based on the higher percentage of owner-occupied housing units and higher average household size, social cohesion in the City of West Sacramento within the Project corridor is moderate.

City of Sacramento

After crossing the Pioneer Bridge over the Sacramento River (Segment 3b), US-50 enters the City of Sacramento. At the US-50/I-5 interchange, adjacent neighborhoods include Old Sacramento and the Southside Park neighborhood to the north and the Upper Land Park neighborhood to the south. Old Sacramento consists of historic buildings, wood-plank sidewalks, museums, the Sacramento River and charm from the Gold Rush era. The historic buildings house numerous shops, restaurants, bars and entertainment venues. This area was separated from downtown Sacramento with the construction of I-5 in the early 1970s. Old Sacramento attracts more than 3 million visitors annually. Southside Park is home to several corner markets and churches, including Our Lady of Guadalupe, which is a large Spanish-speaking church. Many annual celebrations and a Sunday Farmers Market are held throughout the year near Southside Park, a 20-acre park in this neighborhood. The neighborhood of Upper Land Park is characterized by traditional neighborhoods, tree-lined streets, distinguished parks, and local shops. Based on the walkability, public space and housing design, and commute

patterns indicating people work where they live, social cohesion in the City of Sacramento in the Community Study Area is moderate.

4.1.1.5 Housing

Table 4-5 and Table 4-6 show housing characteristics in the Community Study Area and the Regional Study Area. In 2019, 22,017 housing units were in the Community Study Area, representing approximately 28 percent of Yolo County's total housing stock (77,947 units). Housing characteristics within the Community Study Area vary from the housing characteristics in the Regional Study Area. Fewer vacant housing units are available within the Community Study Area (4.6 percent) compared to the Regional Study Area as a whole (7.9 percent).

In the Community Study Area, about 60 percent of the housing stock consisted of single-family homes and 40 percent multifamily, whereas the Regional Study Area's housing stock in 2019 comprised 74 percent single-family units and 23 percent multifamily. Although subject to debate and dependent on the geographic location and other social factors, areas with a high proportion of single-family homes may be an indicator that a community has a higher degree of cohesion compared to areas with more multifamily housing.

The Community Study Area has a significantly lower percentage of owner-occupied units at 47 percent, as compared to the Regional Study Area and Yolo County at 60 percent and 52 percent, respectively. This difference may be due, in part, to the high percentage of rental units in the City of Davis occupied by students. Communities with a higher percentage of owner-occupied residences are typically more cohesive because their population tends to be less mobile. Homeowners often take a greater interest in what is happening in their communities than renters do because they have a financial stake in their communities. This often translates to a stronger sense of belonging to their communities.

The median value of homes in the Community Study Area was also more than \$134,000 higher than the overall Regional Study Area median home value and \$83,000 more than that in Yolo County (Table 4-5).

Communities with a high percentage of families with children are more cohesive than communities comprised largely of single people. This may be because children tend to establish friendships with other children in their communities, and the social network of children often leads to the establishment of friendships and affiliations among parents in the communities. The Census Bureau reports number of persons per household. This analysis assumes that higher persons per household translates to more families with children. There are slightly fewer persons per household in the Community Study Area (2.69 persons) than in either Yolo County (2.81 persons) or the Regional Study Area (2.77 persons).

Table 4-5. Selected Housing Characteristics

Area	Total Housing Units	Percent Vacant	Percent Single Family Units	Average Household Size (Persons)	Percent Owner Occupied	Median Value (\$)	Median Rent (\$ per month)
California	14,175,976	8.0	64.8	2.95	54.8	505,000	1,503
Regional Study Area	966,189	7.9	74.0	2.77	60.2	374,283	1,236
Community Study Area ¹	22,017	4.6	58.5	2.69	47.3	508,375	1,395
Yolo County	77,947	4.7	66.0	2.81	51.6	424,900	1,324
City of Davis	25,844	4.7	55.8	2.70	43.2	652,300	1,567
City of West Sacramento	19,478	4.6	69.9	2.84	56.9	349,800	1,026
City of Sacramento	196,652	5.8	66.9	2.66	48.5	336,900	1,263

Source: U.S. Census Bureau 2019, Tables B25002, B25003, B25010, B25024, B25064 and B25077

Note 1: Housing data is presented for all census tracts in the Community Study Area.

The Community Study Area has higher percentages of householders who have lived in their units for shorter periods of time when compared to the Regional Study Area and Yolo County (Table 4-6). The Community Study Area is comprised of 13.5 percent householders who moved into their current housing unit since 2017, compared to 10.8 percent householders in the Regional Study Area, and has only 7.4 percent householders who have lived in their current housing unit since prior to 1989, compared to the 10.2 percent householders in the Regional Study Area. This may indicate that residents of the Community Study Area have lived in the area for fewer years, or may be a function of newer housing developments in the West Sacramento and Davis area. Communities with a high percentage of long-term residents are typically more cohesive because a greater proportion of the population has had time to establish social networks and develop an identity with the community.

Given the large percentage of rental units, high percentage of multi-family residential, and short average length of occupancy per housing unit, it is reasonable to assume a lower degree of social cohesion exists within the Community Study Area as a whole compared to the Regional Study Area. The City of Davis has the largest percentage of multi-family housing units and the largest percentage of rental units within the Community Study Area, indicating a lower level of cohesion. The City of West Sacramento has the largest percentage of owner-occupied housing and highest average householder size within the Community Study Area, indicating a moderate level of cohesion.

Table 4-6. Householder Tenure

Area	Year Householder Moved into Unit by Percentage					
	2017 or Later	2015 to 2016	2010 to 2014	2000 to 2009	1990 to 1999	1989 or Earlier
California	9.7	14.8	27.3	23.8	12.4	12.0
Regional Study Area ^[1]	10.8	16.6	27.8	23.7	10.9	10.2
Community Study Area ^[1]	13.5	22.4	27.4	20.9	8.5	7.4
Yolo County	11.9	18.3	26.3	22.4	11.0	10.0
City of Davis	18.3	23.4	21.1	15.6	12.3	9.2
City of West Sacramento	8.9	17.0	31.2	28.4	7.1	7.4
City of Sacramento	12.5	17.4	30.5	20.5	8.7	10.3

Source: U.S. Census Bureau 2019, Table B25038

Note: 1. Housing data is presented for all census tracts in the Community Study Area.

4.1.1.6 Housing Projections and Future Housing Needs

Estimations from the MTP/SCS anticipate roughly 46,400 acres of land development through 2040 to accommodate approximately 620,500 new residents, 260,000 new housing units, and 270,000 new employees within the Regional Study Area (SACOG 2019a). To keep up with the Regional Study Area housing demand, SACOG estimates that the region will need to produce 11,000 new homes annually on average (SACOG 2019a). Housing permit data from local building departments shows increased demand for more closely situated, denser housing development in 2017 and 2018 (SACOG 2019a). SACOG planning for future housing needs align with the Sacramento Region Blueprint, which aims to integrate land use and transportation planning to curb sprawl and reduce vehicle emissions and congestion to improve quality of life for residents of the Regional Study Area.

4.1.1.7 Household Income

In 2019, the average household size in the Community Study Area (2.69 persons per household) was smaller than the Regional Study Area (2.77) and the state as a whole (2.95). Median household incomes within the Community Study Area (\$70,759) were similar to the Regional Study Area (\$71,259) and lower than the state (\$75,235). Census block groups within the Community Study Area have both some of the lowest and highest incomes in the Region, with census tract 22, block group 2 (West Broadway in Sacramento) falling within the lowest range (\$16,667 median household income) and census tract 106.07, block group 3 (El Macero in Davis) falling within the highest range (\$182,125 median household income). The percentage

of families and individuals living below the poverty level within the Community Study Area is higher than the Regional Study Area or state percentage (Table 4-7).

Table 4-7. Selected Income Characteristics

Area	Average Number of Persons per Household	Median Household Income ^[1] (\$)	Population Below Poverty Level	Percent of Individuals Below Poverty Level (%)	Percent of Families Below poverty Level ^[2] (%)
California	2.95	75,235	11,930,261	31.0	9.6
Regional Study Area	2.77	71,259	736,907	30.1	9.4
Community Study Area	2.69	70,759	37,819	37.2	10.9
Yolo County	2.81	70,228	72,487	34.6	9.0
City of Davis	2.70	69,379	27,691	41.5	6.4
City of West Sacramento	2.84	70,699	16,844	31.9	11.8
City of Sacramento	2.66	62,335	184,902	37.5	12.1

Source: U.S. Census Bureau 2019, Tables B19001, B17012, B19013, and S1701

Notes:

1. Median household income data is presented without data for tract 105.05 block group 2 and 107.01 group 4.
2. Family poverty data is presented for all census tracts (not census block groups) in the Community Study Area.

4.1.2 Environmental Consequences

4.1.2.1 Regional Population Characteristics

Build Alternatives

As described in *Section 3, Growth*, by improving access and highway capacity, Build Alternatives 2 through 5 would help accommodate planned growth on a regional level. However, these alternatives would not remove an impediment to growth, provide an entirely new public facility, or provide new access to previously unserved areas. Further, all Build Alternatives would occur primarily within the existing Caltrans ROW. All Build Alternatives would require acquisition of a vacant parcel to construct a Park-and-Ride Facility south of I-80 at Enterprise Boulevard in West Sacramento. The Project would not result in changes to land uses, acquisition of residential or commercial property, or displacement of any minority residence, business, or employees. There would be no disruption or effect on the existing land uses or community features in the surrounding areas.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect regional population characteristics. As described in *Section 3, Growth*, deteriorating traffic

conditions on I-80/US-50 under future No-Build conditions could deter development that would rely on the freeway corridor.

4.1.2.2 Neighborhoods/Communities/Community Character

Build Alternatives

Under all Build Alternatives, there would be no changes to the community character or cohesion of neighborhoods present in the Community Study Area. The Project would occur primarily within the existing Caltrans ROW and would not result in access changes. Build Alternatives 2 through 6 would widen the highway footprint primarily to the center median and would not substantially change the traffic mix. Therefore, the Project would not divide an existing neighborhood or result in additional barriers within the Community Study Area. The existing character of the adjacent neighborhoods and quality of life would not adversely change under the Build Alternatives. Travel time improvements on I-80 are not expected to substantially affect traffic on surface streets in nearby neighborhoods, although some travelers who now avoid the freeway during commute time may shift back to the freeway, thus improving travel on local arterials that parallel the freeway. Additionally, all Build Alternatives include ITS improvements and auxiliary lanes, which would help facilitate circulation between I-80, US-50 and the surrounding surface streets, benefiting access to neighboring communities and businesses. There would be no change to quality of life for the residents of adjacent neighborhoods under the Build Alternatives. The project would not stimulate growth in these existing neighborhoods; see section 3.2.

Under all Build Alternatives, short-term, intermittent, and temporary ramp and lane closures during construction would inconvenience all roadway users and could require alternative traffic routing. Because Build Alternative 7 would not add new lanes, but would rather repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore result in fewer delays than those under Build Alternatives 2 through 6. Since the “b” alternatives would construct the elevated I-80 connector, the “b” alternatives would have a longer construction duration and require additional lane closures than the “a” alternatives. With the “b” alternatives, a temporary full closure may be needed on westbound US-50; the primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. Prior to construction, a detailed TMP would be prepared for the selected alternative. Recommendations for the TMP include items such as no lane or shoulder closures during daytime and peak commute hours on weekdays, a minimum number of traffic lanes open in each direction of travel at all times on the highway, and other items to maintain traffic connectivity. The TMP would include a public outreach program to keep the area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule. By applying this public outreach program, adverse effects during construction would be reduced.

Community character is also a function of the environmental setting of a neighborhood. The following sections address changes in air quality, noise, and visual resources for nearby neighborhoods.

Air Quality

Vehicular air pollution and health disparities associated with those air pollutants are disproportionately borne by residents who live near major highways in California (Union of Concerned Scientists 2019). Traffic is a significant source of air pollution, particularly in urban areas, where more than 50 percent of particulate emissions come from traffic (OEHHA 2021). For neighborhoods near the highway, localized pollutant sources from traffic include Mobile Source Air Toxics (MSAT) and particulate matter (PM_{2.5} and PM₁₀) emissions. Diesel particulate matter (DPM) is the dominant component of MSAT emissions, making up 36 to 56 percent of all priority MSAT pollutants by mass, depending on calendar year (FHWA 2023).

Diesel exhaust particulate matter is a California-identified Toxic Air Contaminant (TAC), and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors. During construction, TACs and fugitive dust from construction activities could affect adjacent properties. These effects could be experienced by communities immediately adjacent to construction activities. However, roadway construction activities typically occur for relatively short periods of time as construction proceeds along the Project alignment. Localized air quality impacts would be minimized by adhering to Caltrans' standard specifications and BMPs for minimizing fugitive dust and TACs.

The *Air Quality Report* completed for the Project determined that there are sensitive receptors located within the vicinity of the Project, consisting of residences and parks (Caltrans 2023b). Build Alternatives 2 through 6 would add one lane in each direction primarily by expanding into the center median and other areas within the Caltrans ROW; Build Alternative 7 would repurpose an existing lane and would not construct new travel lanes. Build Alternatives 2 through 7 include a "b" alternative that would construct an I-80 connector ramp. The connector ramp under the "b" alternatives would be entirely within the Caltrans ROW. None of the Build Alternatives would substantially change the traffic mix.

Build Alternatives 2 through 6 would widen to the outside on the north side of I-80 from post mile 0.1 to post mile 1.0 in Yolo County, and on the south side of I-80 from post mile 44.4 in Solano County to post mile 0.7 in Yolo County. Therefore, travel lanes would move closer to neighboring properties along these segments and could increase exposure to fugitive dust and TACs. Adjacent land uses include sensitive receptors in a small area of multi-family residential development in Davis consisting of a mobile home park, Olive Court (an affordable housing community), and The Arbors (apartment complex). A sound wall, mature trees, and vegetation are located between I-80 and these residential properties, creating a buffer for TACs and fugitive dust generated by highway traffic.

MSAT emissions are expected to decrease substantially, especially for DPM, by the opening year (2029) and even further by the horizon year (2049) because of the U.S. Environmental Protection Agency's national control programs, which are projected to reduce annual MSAT emissions by over 76 percent between 2020 and 2060. Under all alternatives, including the No-Build, total MSAT emissions in the opening year are expected to be over 47 percent lower and in the horizon year are expected to be over 67 percent lower than baseline year (2019) levels (Caltrans 2023b). Under the Build Alternatives, total MSAT emissions in the opening year would

be an average of 47 to 59 percent lower and in the horizon year would be an average of 71 to 77 percent lower than baseline year levels, with the “a” alternatives generally having greater reduction than the “b” alternatives (Caltrans 2023b). Compared to future No-Build conditions, the Build Alternatives would create negligible increases in MSAT emissions in opening and horizon year due to the dispersion across the SACOG region and to U.S. Environmental Protection Agency’s MSAT reduction programs (Caltrans 2023b).

The operational air quality analysis concludes that MSAT and DPM emissions would substantially decrease in future years compared to existing conditions, reducing pollutant burdens for households neighboring the highway. For all Build Alternatives, significant operational air quality impacts on nearby sensitive receptors are not expected as air quality is expected to improve in future years.

However, fugitive sources of particulate matter, like tire wear, brake wear, and road dust are the largest fraction of particulate matter emissions from traffic, and they increase as VMT increases. Therefore, PM_{2.5} and PM₁₀ emissions will continue to increase as VMT in the corridor increases, adding to the pollution burden associated with fugitive particulate matter on communities adjacent to the highway. Compared to the future No-Build condition, the increase in particulate matter emissions associated with increased VMT would be modest and would not exceed significance thresholds.

Noise

A *Noise Study Report* (NSR) was prepared for the project (Illingworth and Rodkin 2022a). The primary objective of the NSR was to identify noise-sensitive receptors where noise levels would approach or exceed the Noise Abatement Criteria (NAC) with the Project or receptors that would experience a substantial increase in noise levels as a result of the Project. The study included noise measurements, calculations of future noise levels with the construction and operation of the Project, and identification of measures to reduce construction noise levels and to abate traffic noise levels at adjacent receptors. The NSR identified Activity Category B (residential), Category C (parks, trails, schools, medical facilities, and active sports areas), Category D (schools, medical facilities, and places of worship), Category E (hotels and offices), Category F (farmland), and Category G (undeveloped land) land uses in the vicinity of the Project.

When compared to existing conditions, changes in exterior noise levels under 2049 Build conditions reported as change in A-weighted decibels (dBA) would range from 0 to +2 dBA at all receptors, and the Build Alternatives would not adversely affect interior noise levels at residences, medical facilities, schools, and places of worship in the study area. Traffic noise impacts are considered to occur at receptor locations where predicted design-year noise levels are 12 dB or greater than existing noise levels. None of the noise level increases that would result from the Project are considered substantial as they would be well below the Caltrans 12 dBA threshold.

The NSR notes that human perception of changes in noise levels depends on the ambient noise level and frequency of the sound. An increase in volume of traffic that results in a 3-dB increase in sound would generally be perceived as barely detectable. Also, sound levels attenuates (or decreases) at a rate of 3 decibels for each doubling of distance from a linear noise source like a

highway. The predicted change in operational noise level would be less than 12 dB, so the Build Alternatives would not substantially change noise conditions for neighboring communities. Since the estimated change (0 to +2 dBA) would be barely perceptible, the Build Alternatives would not adversely affect community activities that contribute to the community character and quality of life, including outdoor recreation activities, residential backyard use, and activities at multifamily housing common use areas, trails, pools, patios, parks, and other outdoor gathering places, such as outdoor seating at restaurants or outdoor use areas at places of worship. These noise level increases are not considered substantial per the Caltrans *Traffic Noise Analysis Protocol for New highway Construction, Reconstruction, and Retrofit Barrier Projects*.

Build Alternatives 2 through 6 would widen to the outside on the north side of I-80 from post mile 0.1 to post mile 1.0 in Yolo County, and on the south side of I-80 from post mile 44.4 in Solano County to post mile 0.7 in Yolo County. Adjacent land uses include sensitive receptors in a small area of multi-family residential development in Davis consisting of a mobile home park, Olive Court (an affordable housing community), and The Arbors (apartment complex). A sound wall, mature trees, and vegetation are located between I-80 and these residential properties, creating a buffer for noise impacts. As described above, even with the change in distance to the traveled lane, the increased noise condition would be barely perceptible.

In addition to operational noise increases, construction activities would result in temporary increases to noise and vibration levels at adjacent sensitive receptors. Construction noise would mostly be of concern in areas where impulse-related noise levels from construction activities would be concentrated for extended periods of time, where noise levels from individual pieces of equipment are substantially higher than ambient conditions, or when construction activities would occur during noise-sensitive early morning, evening, or nighttime hours. Construction activities would be conducted following applicable local regulations, would be short-term and intermittent, and would be minimized by adhering to Caltrans' standard specifications and BMPs for noise abatement.

Visual Resources

Community character is strongly influenced by the visual elements within a neighborhood. Therefore, changes in the visual character of a neighborhood can directly affect community character. The Project proposes to increase the amount of paving within the existing width of the freeway, install barriers and fencing, add new roadway structures (including an I-80 connector structure for the "b" alternatives only), introduce new overhead signage elements, and remove center median plantings and roadside trees, which provide visual buffering. These changes would have a notable visual impact that is apparent to both highway users and highway neighbors, including the surrounding community. Visual impacts would be experienced most acutely by highway users whose direct visual environment would be altered in ways which increase the dominance of the roadway in the corridor and result in an increasingly urbanized aesthetic. These impacts would be most noticeable in areas where the width of the median would be reduced and where median plantings would be removed. There would also be short-term visual impacts to highway users and highway neighbors as a result of construction equipment and temporary sources of light and glare. These impacts would be minimized

through use of standard construction equipment and protocol and appropriate light and glare screening measures. (Stantec 2022)

Build Alternatives 2 through 6 add a new lane in each direction and therefore increase the amount of paving within the existing width of the freeway. New overhead signage elements and the removal of median plantings and roadside trees would occur under all these alternatives. Build Alternatives 3 through 5 include tolled lanes, which include an increased number of overhead pricing signs compared to Build Alternatives 2 and 6. Build Alternative 7 does not include the addition of a new lane in each direction, however the repurposing of the existing lanes for HOV 2+ lanes will require new signage. Under the “b” alternatives, an I-80 connector ramp would be built in West Sacramento, adding a new freeway structure.

For some neighboring communities, the new paving and freeway signage would not create a noticeable change where those elements are screened from view with existing vegetation, topography, and sound walls. In areas where the freeway is within the direct field of view from neighboring homes, businesses, and local roads, existing median plantings act to reduce the scale of the roadway, and removal of median vegetation would increase the scale and dominance of the highway facility for neighbors. New signs within the direct field of view for some adjacent residences would alter their existing views. Under the “b” alternatives, the addition of the I-80 connector ramp would introduce a new prominent elevated feature. Measures to minimize visual impacts include planting vegetation for screening, reducing the scale or size of signs and structures, and refining signage locations during final design where they would be visible to residences.

In general, the proposed changes would be compatible with the existing visual character of the corridor since the corridor is already developed as a roadway. Most of the major components of the project such as roadway surfaces and overhead signage would be similar in form, line, color, and scale to those which are existing, though they would increase in frequency (more signs) and relative scale (more paving) within the same overall roadway footprint (Stantec 2022). The increase in roadway infrastructure components coupled with the loss of vegetation would alter the character of the corridor toward a more urbanized aesthetic in areas that are currently more naturalized and suburban in overall character. Although the Build Alternatives would result in visual impacts for highway neighbors, the resulting effect on overall community character would be modest.

For all Build Alternatives, construction would temporarily affect visual conditions, including staged equipment and machinery and construction lighting and signage. Construction-related visual impacts would be short-term, typical of major corridor improvements, and would not be substantial. Construction BMPs would be used to minimize those impacts.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect community character and cohesion, change noise levels, or change visual character for neighboring communities. The No-Build Alternative does not meet the Project purpose and need.

4.1.2.3 Housing

Build Alternatives

Under all Build Alternatives, no residential property acquisition or relocation would be required. Therefore, there would be no effects on housing.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; no property acquisition or housing relocation would occur.

4.1.3 Avoidance, Minimization, and/or Mitigation Measures

There would be no adverse effects on population and housing, so no avoidance, minimization, or mitigation measures are proposed. Caltrans standard project features and BMPs would minimize changes in the environmental setting of neighboring communities (e.g., air quality, noise, and visual setting). The following measures would minimize temporary effects on area residents during construction and minimize long-term effects on community character.

Implementation of Caltrans Standard Specifications Section 14-8.02 Noise Control, Section 10-5 Dust Control, Section 14-9 Air Quality, and Section 18 Dust Palliatives, would minimize effects of the Build Alternatives on population and housing during construction. Standard measures regarding noise include restricting pile driving activities to daytime hours only, using “quiet” equipment where such technology exists, and locating noise-generating equipment as far as practical from sensitive receptors. Standard measures for air quality include application of water for dust control and equipment exhaust controls.

Caltrans standard project features require the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to driveways, houses, and buildings within the work zone. A Transportation Management Plan (TMP) is also a standard requirement that would be applied to the Project. The TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP.

Avoidance and minimization measures will be implemented to minimize visual impacts, which would minimize the effects of the Build Alternatives on community character. Visual resources measures include the following: minimize glare through the selection of materials and finishes; minimize high contrast rock slope protection; account for the loss of plantings and vegetation by providing replacement highway plantings and vegetation; reduce the views of new overhead signage and read points from visually sensitive locations; and minimize I-80 connector structure design profile. Providing replacement highway plantings and vegetation could also reduce movement of particulate matter from travelled lanes into adjacent communities, further benefiting long-term air quality for neighboring residents.

4.2 Economic Conditions

4.2.1 Affected Environment

4.2.1.1 Regional Economy

Sources of economic data for the Regional Study Area, defined in Section 1.6 as El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties, include SACOG, the California Regional Economic Analysis Project, and the U.S. Census Bureau. In many instances, Yolo County statistics are used for comparison purposes as a substitute for the Community Study Area statistics because these data are available on a county level, but not on the census tract level. Yolo County was selected because it encompasses the largest portion of the Project footprint with nearly 15 highway miles, compared to 4 miles within Solano County and 1.4 miles within Sacramento County. Where data are available on a census tract level, the Community Study Area data are compared to the Regional Study Area.

The Regional Study Area has had economic growth and a low unemployment rate that has been supported by substantial growth in the real estate, construction, manufacturing, health care, and retail sectors. Over 2010 to 2019, Yolo County posted a 36.84 percent net gain in real gross domestic product (GDP), which outpaced the statewide average (36.15 percent). In comparison, Sacramento County and Solano County's GDP grew by approximately 26.45 percent and 23.86 percent, respectively, between 2010 and 2019 (California Regional Economic Analysis Project 2021).

The I-80/US-50 corridor is an important facility for moving freight throughout California. I-80 is a major east-west connector through California, linking the Bay Area with the Sacramento Region and locations across the country. The 203-mile length of I-80 in California between US-101 and the California-Nevada line is designated as a primary link in the National Highway Freight Network by the FHWA (FHWA 2018).

Yolo County's leading economic activity is agriculture and is supported by other industries such as warehousing and distribution, food processing, technology and biotechnology research and development, and higher education at UC Davis. The soils, growing climate, and water supplies in unincorporated Yolo County support agriculture. Almonds are Yolo County's leading commodity, followed by tomatoes, wine grapes, rice, and organic production. Yolo County is working to become a leader in economic sustainability, focusing on agricultural advancement, emerging green technology expertise, and eco- and agri-tourism opportunities. UC Davis is a leading generator of innovative graduates with expertise in all these industries.

Employment in Yolo County is in governmental occupations, followed by transportation and warehousing, then retail. Agriculture is next but is on the decline due to increasing mechanization of farming, which reduces labor needs. Job growth is seen in education and healthcare, professional and business services, and leisure and hospitality, largely due to activities at the Cache Creek Casino. UC Davis is the largest employer, followed by Cache Creek Casino, the State of California, and the U.S. Postal Service.

The California Department of Tax and Fee Administration (CDTFA) 2019-2020 Annual Report (CDTFA 2019) reported local sales and use tax revenue distributed for fiscal year 2019-2020 was \$4.37 million to Yolo County, \$7.33 million to the City of Davis, \$19.7 million to the City of West Sacramento, and \$85.4 million to the City of Sacramento. Total taxable transactions in the City of Davis for 2020 were reported at \$0.55 billion, in the City of West Sacramento at \$1.59 billion, in the City of Sacramento at \$6.84 billion, and in Yolo County at \$4.69 billion (CDTFA 2019).

The COVID-19 pandemic created economic uncertainty in the Regional Study Area. The region's economy, like many others, was impacted due to the recession induced by the COVID-19 pandemic. This impact was mitigated to a degree by stimulus packages approved by the Federal and State Government. In the transition to post-pandemic life, housing demand is higher than supply in the region as Bay Area residents continue to move inland in search of less expensive housing alternatives. Economic recovery from the pandemic is ongoing.

Tables 4-8 and 4-9 summarize the economic statistics by business type for the State of California, Regional Study Area, and Yolo County. According to data compiled by the U.S. Census Bureau in the 2017 Economic Census (U.S. Census Bureau 2017), the majority of jobs in the state, Regional Study Area, and Yolo County are in healthcare and social assistance, accommodation and food services, and retail trade. Many jobs were also identified in administrative and professional services in the state and Regional Study Area, compared to Yolo County with the next highest number of jobs in manufacturing, wholesale trade, and transportation and warehousing. Wholesale trade and retail trade had the largest share of sales or receipts in all three geographic areas evaluated. For the state, wholesale trade (34 percent) had two times the sales or receipts of that of retail trade (17 percent) and three times that of the next highest sales or receipts, healthcare (9 percent). For the Regional Study Area, wholesale trade had the largest share of sales or receipts (28 percent), beating out retail trade (23 percent), and nearly doubling healthcare and social assistance (15 percent). For Yolo County, wholesale trade (48 percent) had more than three times the sales or receipts of that of retail trade (15 percent) and of the next highest sales or receipts, manufacturing (14 percent).

Table 4-8. Number of Businesses and Sales or Receipts by Business Type

Business Type	Number of Businesses (Percent)			Sales or Receipts (Percent)		
	State of California	Regional Study Area	Yolo County	State of California	Regional Study Area	Yolo County
Totals	677,300	36,912	3,226	\$3.54 Trillion	\$146.15 Billion	\$18.07 Billion
Utilities	0.08%	N/A	N/A	N/A	N/A	N/A
Manufacturing	5.22%	3.87%	5.11%	14.44%	8.75%	13.99%
Wholesale Trade	7.46%	4.62%	7.32%	33.70%	28.02%	47.64%
Retail Trade	10.38%	12.78%	12.90%	16.81%	22.97%	14.95%
Transportation and Warehousing	3.03%	3.43%	5.46%	2.80%	2.34%	3.50%

Business Type	Number of Businesses (Percent)			Sales or Receipts (Percent)		
	State of California	Regional Study Area	Yolo County	State of California	Regional Study Area	Yolo County
Information	2.61%	1.46%	1.58%	N/A	N/A	N/A
Finance and Insurance	4.29%	5.37%	3.72%	N/A	N/A	N/A
Real Estate, Rental, and Leasing	6.53%	6.98%	7.75%	3.13%	2.83%	1.87%
Professional, Scientific, and Technical Services	17.31%	16.73%	13.95%	8.50%	7.45%	4.19%
Company and Enterprise Management	0.49%	N/A	N/A	0.34%	N/A	N/A
Administrative, Support, Waste Management, and Remediation Services	5.65%	7.01%	5.95%	4.10%	3.74%	1.93%
Educational Services	1.49%	1.44%	1.15%	0.28%	0.32%	0.08%
Healthcare and Social Assistance	13.68%	13.60%	11.07%	8.80%	15.22%	5.91%
Arts, Entertainment, and Recreation	3.65%	1.89%	2.01%	1.50%	1.11%	0.36%
Accommodation and Food Services	9.96%	11.16%	11.81%	3.78%	4.91%	4.50%
Other Services (except Public Administration)	8.17%	9.66%	10.23%	1.82%	2.34%	1.43%

N/A: Not Available

Source: U.S. Census Bureau 2017 Economic Census (Table ID EC1700BASIC)

Table 4-9. Annual Payroll and Number of Employees by Business Type

Business Type	Annual Payroll (Percent)			Number of Employees (Percent)		
	State of California	Regional Study Area	Yolo County	State of California	Regional Study Area	Yolo County
Totals	\$868.97 Billion	\$34.70 Billion	\$2.59 Billion	13,846,442	692,947	58,801
Utilities	0.89%	N/A	N/A	0.45%	N/A	N/A
Manufacturing	8.80%	5.85%	12.05%	8.38%	5.02%	10.21%

Business Type	Annual Payroll (Percent)			Number of Employees (Percent)		
	State of California	Regional Study Area	Yolo County	State of California	Regional Study Area	Yolo County
Wholesale Trade	7.78%	5.30%	13.50%	6.21%	4.35%	10.32%
Retail Trade	6.24%	9.29%	9.66%	12.45%	15.34%	13.84%
Transportation and Warehousing	3.31%	4.97%	11.62%	3.94%	4.17%	10.55%
Information	12.35%	4.01%	3.91%	4.90%	2.80%	2.63%
Finance and Insurance	8.47%	10.46%	3.05%	4.70%	6.66%	2.01%
Real Estate, Rental, and Leasing	2.10%	2.24%	2.74%	2.27%	2.31%	2.87%
Professional, Scientific, and Technical Services	13.66%	15.11%	10.62%	8.97%	8.76%	6.21%
Company and Enterprise Management	5.56%	N/A	N/A	2.60%	N/A	N/A
Administrative, Support, Waste Management, and Remediation Services	8.60%	6.86%	5.90%	11.29%	9.61%	5.54%
Educational Services	0.38%	0.46%	0.21%	0.84%	0.85%	0.45%
Healthcare and Social Assistance	13.75%	25.49%	14.86%	14.76%	19.23%	12.88%
Arts, Entertainment, and Recreation	1.98%	1.48%	0.78%	2.53%	2.79%	2.50%
Accommodation and Food Services	4.34%	5.55%	8.78%	12.56%	14.26%	16.32%
Other Services (except Public Administration)	1.80%	2.93%	3.10%	3.16%	3.84%	3.65%

N/A: Not Available

Source: U.S. Census Bureau 2017 Economic Census (Table ID EC1700BASIC)

4.2.1.2 Employment and Income

Table 4-10 provides information on major employment sectors in the Regional Study Area and Community Study Area. According to the State of California Employment Development Department (CEDD 2022), major employers in Yolo County include:

- Government offices such as the California Procurement Office, Yolo County District Attorney, Yolo County Sheriff's Office, and the City of Davis City Manager's Office;
- Hospitals and health care businesses such as Beckman Coulter, Sutter Davis Hospital, Dignity Health Woodland, and the Woodland Healthcare Foundation;
- Higher education at UC Davis;
- Manufacturing and distribution centers such as Clark Pacific, Nor-Cal Beverage, Pacific Coast Producers, Target, and Rite Aid; and
- Other private corporations such as Cache Creek Casino Resort, United Parcel Service Customer Center, Tony's Fine Foods, Promega, Mariani Nut, IKEA, Clark Pacific, Capital Express Lines, Walmart, McGuire & Hester, and Dennis Blazona Construction.

Table 4-10. Employment Characteristics

Employment Area	Percentage of Workforce		
	California	Regional Study Area	Community Study Area
Management, business, science, and arts occupations	39.3	40.2	48.5
Service occupations	18.5	18.8	17.0
Sales and office occupations	21.2	22.3	16.8
Natural resources, construction, and maintenance occupations	9.0	8.4	7.9
Production, transportation, and material moving occupations	12.0	10.4	9.9

Source: U.S. Census Bureau 2019, Table C24060

Table 4-11 gives employment statistics and labor force composition. The unemployment rate in the Community Study Area (6.60 percent) is slightly higher than the Regional Study Area (6.14 percent) and Yolo County (6.19 percent). The composition of the labor force in the Community Study Area has approximately the same percentage of women workers in the labor force as the Regional Study Area and Yolo County. The labor force of employed persons who are college educated in the Community Study Area (72 percent) is slightly higher than the Regional Study Area (69 percent) and Yolo County (70 percent).

Table 4-11. Employment and Labor Force Composition

Area	Number Persons in Labor Force^[1]	Number of Persons Employed	Number of Persons Unemployed	Percent Unemployed	Percent Women in Labor Force	Percent Employed and College Educated^[2]
California	19,790,474	18,591,241	1,199,233	6.06	46.0	64.5
Regional Study Area	1,210,148	1,135,810	74,338	6.14	47.8	69.2
Community Study Area ^[3]	51,943	48,514	3,429	6.60	48.8	72.1
Yolo County	105,929	99,367	6,562	6.19	48.4	69.8

Notes:

1. Labor Force: Aged 16 years and older

2. College Educated Population: Aged 25 years and older with more than a high school education.

3. Data is provided on census tract level, not census block group

Source: U.S. Census Bureau 2019, Tables B23001, B24010, and B23006

4.2.1.3 Commute Patterns

The Yolo basin floodway and Sacramento River present natural physical barriers to traveling within the Study Area. Limited connectivity across rivers and floodways create longer trip lengths, greater dependence on automobiles, concentrated vehicle traffic flows on the existing causeway and bridges and their connecting approach roadways, and a barrier to economic activity, social exchanges, recreational opportunities, and access to jobs within the urban core of Sacramento, West Sacramento, and the City of Davis. According to a City of West Sacramento Draft Project Report for Broadway Bridge Project, peak congestion is caused by local intercity commuters using the State Highway System as a result of having few local river crossing options (City of West Sacramento 2022).

Table 4-12 shows percentage of workers aged 16 years and older who commute to work using different modes of transportation. Transportation modes to work for workers in the Community Study Area are somewhat consistent with Yolo County, with a slightly higher percentage of workers walking or biking and slightly lower percentage of workers driving alone. The same differences are more pronounced when comparing the Community Study Area to the Regional Study Area, with a difference of 8.3 greater percent workers walking or biking and 10.4 fewer percent workers driving alone. This difference is largely attributable to the City of Davis where more than 21 percent of the workers walk or bike to work, with two census block groups having 54 and 69 percent of its workers walking or biking to work. These statistics are also provided by census tract in the table below. One census tract in the City of Davis (census tract 106.08) has a high percentage of workers using public transportation at 18.3 percent, with the next highest at less than 8 percent. One census tract in the City of Davis has a high percentage of workers working from home at 18.4 percent.

Table 4-12. Transportation to Work

Area	Total Number Workers ^[1]	Percent Drove Alone	Percent Carpool	Percent Public Transportation	Percent Other	Percent Walk/Bike	Percent Work from Home
California	18,191,555	73.7	10.1	5.1	1.6	3.6	5.9
Regional Study Area ¹	1,115,602	76.9	9.6	2.2	1.2	3.1	7.0
Community Study Area	26,063	66.5	9.8	4.0	1.2	11.4	7.1
Yolo County	97,220	69.1	9.8	4.2	1.0	9.9	6.0
Census Tract (Census Block Groups) in the Community Study Area							
Segment 1a Kidwell Road to Solano/Yolo County Line							
2533 (2)	380	77.1	1.3	3.9	0.0	11.1	6.6
2534.02 (1)	903	74.0	18.3	0.0	0.0	1.9	5.9
105.01 (2)	643	16.6	3.3	4.4	4.8	68.9	2.0
Segment 1b Solano/Yolo County Line to Yolo Causeway							
106.02 (2-4)	1,970	49.5	7.5	1.9	0.5	25.3	15.3
106.06 (4-5)	1,264	65.2	2.5	7.7	0.0	14.6	10.0
106.08 (1-3)	2,470	49.3	2.1	18.3	0.5	20.7	9.1
107.01 (4)	261	27.6	0.0	0.0	0.0	54.0	18.4
106.05 (2)	554	73.5	4.2	1.6	0.9	11.2	8.7
105.05 (2)	222	69.8	0.0	0.0	0.0	24.3	5.9
106.07 (1-3)	1,725	63.7	10.8	0.5	0.9	11.5	12.6
104.01 (1-2)	1,739	76.5	8.9	3.7	0.0	4.3	6.6
Segment 1c Yolo Causeway to Enterprise Boulevard							
112.06 (3)	2,079	70.6	17.8	2.1	1.0	0.8	7.7
Segment 2 Enterprise Boulevard to West El Camino Avenue							
101.02 (1, 3)	1,672	60.3	17.6	0.0	1.1	8.3	12.7
70.20 (1, 2)	2,307	84.3	7.2	1.2	1.1	1.5	4.8
70.17(1)	665	86.3	7.7	0.0	2.7	0.0	3.3
Segment 3a I-80/US-50 to Jefferson Boulevard							
102.03 (1-4)	1,725	74.1	12.1	5.9	1.4	5.9	0.6
102.04 (1-3)	1,971	79.4	11.7	0.8	0.0	3.6	4.6
Segment 3b Jefferson Boulevard to I-5							
102.01 (1)	1,408	58.9	19.9	3.2	7.5	8.2	2.3
22 (1-2)	1,145	67.4	7.6	5.9	2.7	13.9	2.4
21 (1, 3)	960	78.0	8.9	1.9	0.0	10.4	0.8

Source: U.S. Census Bureau 2019, Table B08301

Note: 1. Workers aged 16 years and older.

Table 4-13 shows commuting patterns and the location of employment relative to area of residence for workers over the age of 16. The Community Study Area has a lower percentage of people who work within their county of residence (64 percent) than the Regional Study Area (73 percent) and a higher percentage of people who work within their city or census-designated place of residence (38 percent) compared to the Regional Study Area (31 percent). In general, communities with a high percentage of the population that reside and work in the same county or place of residence tend to demonstrate higher levels of involvement and interaction within their communities. The Community Study Area also has a higher percentage of workers with a short commute time of less than 30 minutes (72 percent) compared to the Regional Study Area (61 percent) and the state (56 percent). Communities with a high percentage of the population with shorter travel times to work are generally more cohesive than communities with longer commute times. When people spend less time commuting, they have more time to engage in their local communities and greater cohesion is demonstrated.

Table 4-13. Commuting Patterns

Area	Work Inside County of Residence	Work Outside County of Residence	Work Inside Place of Residence ^[1]	Work Outside Place of Residence	Travel Time to Work ^[2] <30 Minutes	Travel Time to Work 30 to 60 Minutes	Travel Time to Work >60 Minutes
California	82.4%	17.6%	35.1%	60.2%	56.0%	31.3%	12.7%
Regional Study Area ^[3]	72.6%	27.4%	30.5%	62.5%	60.5%	31.0%	8.6%
Community Study Area	64.2%	35.8%	38.3%	55.7%	72.1%	22.2%	5.7%
Yolo County	63.1%	36.9%	33.4%	61.3%	69.1%	23.5%	7.4%

Source: U.S. Census Bureau 2019, Tables B08007, B08008, and B08303

Notes:

1. Place of residence is defined as a city or census designated place.
2. Travel Time to Work percentages calculated using total number of workers, excluding those working from home.
3. Population for the Regional Study Area based on the total population within the SACOG area, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties.

The jobs-housing balance is the ratio of jobs to housing in a given area. If the jobs-housing ratio is too high, adequate housing may be unavailable or unaffordable for workers in that area, contributing to traffic congestion. If the jobs-housing balance is too low, this may indicate inadequate job availability for area residents. Table 4-14 shows a predicted improvement in jobs-to-housing ratio for Yolo County and the Regional Study Area through 2040. Providing housing near employment centers reduces commute distances and leads to improvements in traffic and air quality conditions. In regional land use and transportation planning, “improved” jobs-to-housing ratio is defined as a ratio that moves toward the regional average. The majority of regional housing and employment growth in the Regional Study Area, approximately 80 percent, is projected to occur in Sacramento County (61 of the total employment growth and 63 percent of the total housing growth) and Placer County (17 percent of the total for both

employment and housing growth). Yolo County is projected to have the next highest amount of growth (10 percent of the total employment growth and 9 percent of the total housing growth), followed by El Dorado, Sutter, and Yuba counties (SACOG 2019). This table illustrates how jobs-to-housing ratios are projected to change over the next 20 years.

Table 4-14. Summary of Jobs to Housing Ratio

Area	2016			2016 – 2040			2040		
	Dwelling Units	Employ-ees	Jobs to Housing Ratio	New Dwelling Units	New Employ-ees	Jobs to Housing Growth	Dwelling Units	Employ-ees	Jobs to Housing Growth
Yolo County	77,705	104,771	1.3	28,662	30,604	1.0	106,367	135,376	1.2
Regional Study Area ^[1]	921,123	1,060,751	1.2	260,128	270,060	1.1	1,181,251	1,330,813	1.2

Source: SACOG 2019

Note: 1. Population for the Regional Study Area based on the total population within the SACOG area, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties.

4.2.1.4 Business Activity

There are several business centers along the I-80/US-50 corridor in the Community Study Area. The major economic centers include commercial businesses, industrial and manufacturing centers, and office/business parks in Davis and West Sacramento. Major employment centers along the Project corridor include UC Davis and the Port of (West) Sacramento.

City of Dixon

The northeastern portion of the City of Dixon is located within the Community Study Area. Commercial properties such as a WalMart Supercenter, Country Inn & Suites, and a truck dealership (TEC Equipment) are located along the I-80 corridor in Dixon.

Solano County

Just east of the Dixon city limits, in unincorporated Solano County, the Pedrick Road exit offers traveler services such as gas stations (Chevron and 76), a Subway restaurant, and the Pedrick Produce grocery store. There are also light industrial properties such as the Caltrans maintenance station and transportation businesses including Mike Lowrie Trucking, Napa Valley Transportation, and Button Transportation.

UC Davis

State Route 113 towards the City of Woodland and the UC Davis exits provide access to the sprawling campus of UC Davis. There are no businesses fronting this portion of the I-80 corridor; food services and other retail are located within the campus and not proximate to the highway.

City of Davis

The Richards Boulevard exit from I-80 in the City of Davis provides access to a mix of commercial and retail businesses such as a furniture store, auto repair/parts, and a dispensary, as well as traveler services such as gas stations (Shell), restaurants (Dutch Bros coffee, In-N-Out Burger, KFC, Starbucks, and IHOP) and hotels (Holiday Inn Express and University Park Inn & Suites). Richards Boulevard is a primary access point for the downtown Davis commercial district, north of the railroad tracks. Second Street parallels the railroad tracks and I-80, on its north side, from just east of Richards Boulevard nearly to Mace Boulevard and supports a mix of commercial, office, and light industrial businesses. Cowell Avenue and Chiles Road parallel I-80, on its south side, from Richards Boulevard nearly to the Yolo Causeway. Businesses accessed from the Mace Boulevard/Chiles Road exit from I-80 include the El Macero Country Club, grocery store, large box stores such as Target and TJ Maxx, and several car dealerships. Services accessed at this location include gas stations (ARCO and Chevron), restaurants (Subway, Taco Bell, Beach Hut Deli, McDonald's, and Starbucks), and hotels (Motel 6 and Residence Inn).

Yolo County

There are very few businesses along the I-80 corridor in unincorporated Yolo County. The County Road 32A/East Chiles Road exit provides access to a small market (Yolo Fruit Stand), haunted house (Corbett's House of Horror), and a manufacturing facility (Frontier AG - upcycler of agricultural byproducts).

City of West Sacramento

Businesses in the City of West Sacramento along the I-80 corridor are accessed by the Enterprise Boulevard/West Capitol Avenue exit. This exit provides access to warehouse and distribution businesses such as FedEx Freight, U.S. Post Office, equipment sales (OPDE Solar Energy Equipment and Crown Lift Trucks forklift dealer), equipment rental, suppliers (Tobacco Cartel tobacco supplier), print shop (Mailing Systems), and wholesalers (North American Trading Company). This exit also provides access to a park and ride lot and traveler services such as a gas station (ARCO) and Starbucks. Continuing north on I-80, the Reed Avenue exit provides access to destination retail businesses such as IKEA, WalMart, and Ross, as well as manufacturing and distribution warehouses such as the regional headquarters of TOMRA Food. This exit also provides convenient traveler services such as hotels (Hampton Inn and Extended Stay America) and restaurants (Taco Bell, In-N-Out Burger, and Jack in the Box).

The I-80 Business Loop/US 50 corridor passes through a large manufacturing and distribution district near the Port of Sacramento with some commercial retail businesses. The Harbor Boulevard exit provides access to the Port of Sacramento and associated large warehousing district with distribution, manufacturing and some commercial, such as UPS Customer Center, ProPak Logistics, wholesalers (California Wholesale Trading and United Bakery), commercial printer, and forklift sales. Commercial retail businesses include the Dollar Tree, sit down restaurants such as Kick'n Mule and Serrano's, car rental, car repair, and an Exxon gas station. Further east, the Jefferson Boulevard exit (State Road 84): provides access to Sutter Health

Park and commercial retail properties such as Walgreens, Raley's grocery store, MidCal Motorcycle, auto parts stores, gym, and restaurants (Kabab Corner, Pooja Indian Grill, and Capitol Gyros).

City of Sacramento

The I-80 corridor marks the boundary between the City of Sacramento and Sacramento County in the area of the West El Camino exit. The West El Camino exit is a traveler service exit with a hotel (Fairfield Inn & Suites), Sacramento 49er Travel Plaza, gas stations (Chevron and ARCO), and restaurants (Black Bear Diner, Burger King, and Dutch Bros.)

4.2.1.5 Toll Projects

Travelers do not currently pay tolls on roads or bridges in the Community or Regional Study areas. The 2020 MTP/SCS prepared by SACOG has identified managed lane projects as an option for transportation revenue and pricing. Managed lanes are one tool for modernizing funding methods for transportation infrastructure. Pricing mechanisms can raise revenue to build and maintain the region's transportation system, provide mobility benefits to residents, manage traffic and congestion, and help to achieve the state-mandated greenhouse gas reduction targets (SACOG 2019).

Build Alternatives 3 through 5 all feature managed lanes with tolling options. Each Build Alternative has a distinct tolling structure that defines the Build Alternative as described in Section 1.5 Proposed Project. All tolling option alternatives feature at least one type of tolling exemption for certain occupancy classes of vehicle except Build Alternative 5, which requires that all motorists using the managed lane are subject to the toll regardless of the occupancy classification of the vehicle. The economic impacts of priced lanes must consider the equity of imposing tolls on roadway users, particularly low-income users.

4.2.2 Environmental Consequences

4.2.2.1 Regional Economy

Build Alternatives

All Build Alternatives would not adversely change the regional economy. No businesses would be acquired or relocated because of the Project. Additionally, property values are not expected to change and would not result in changes to property or sales tax revenue for the Cities of Davis, West Sacramento, and Sacramento, or Yolo, Sacramento, or Solano Counties. Based on projected traffic performance, Build Alternatives 2 through 5 are expected to have a beneficial effect on the regional economy when completed, by improving access, travel time, and highway capacity.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect regional economic conditions.

4.2.2.2 Employment and Income

Build Alternatives

All Build Alternatives would occur primarily within the existing Caltrans ROW and would not result in any business displacements that may change employment characteristics. Construction of the Project would provide a number of jobs for a short time; the Project would not provide new long-term jobs.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect employment and income in the Community Study Area.

4.2.2.3 Business Activity

Build Alternatives

None of the Build Alternatives would change the locations of employment centers. The Project would not result in business displacements or permanent changes in access. Build Alternatives 2 through 5 would ultimately improve circulation along I-80/US-50 in the Project corridor compared to the No-Build Alternative, which could result in improved access to businesses in the Community Study Area. Therefore, businesses, commuters, and the local community would not be adversely affected. Based on projected traffic performance and increased capacity, Build Alternatives 2 through 5 may have a beneficial effect on business activity in the Community Study Area when completed, by improving access, travel time, and highway capacity.

Under all Build Alternatives, there would be temporary traffic delays and ramp closures on I-80 during construction that could result in temporary effects on access to businesses in and near the Project area. Because Build Alternative 7 would not add new lanes, but would rather repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore result in fewer delays than those under Build Alternatives 2 through 6. Since the “b” alternatives would construct the elevated I-80 connector, the “b” alternatives construction period would have a longer duration and require additional lane closures than Build Alternatives 2 through 6. With the “b” alternatives, a temporary full closure may be needed on westbound US-50; the primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. This closure would occur either at night or as a continuous 24- to 48-hour closure. A nighttime closure would occur when many businesses are closed, so temporary access changes for most businesses would be negligible. During the construction period, construction workers may patronize businesses near the work area, which would have a positive but insignificant effect on local businesses.

Temporary ramp closures would be required as a part of all Build Alternatives. Traveler service industry businesses such as restaurants, gas stations, and motels along the I-80/US-50 corridor throughout the Community Study Area are more sensitive to temporary ramp closures as they serve a greater proportion of inter-regional travelers along I-80/US-50. Access to traveler service businesses at temporarily closed exit ramps would be accommodated through signage

from the next consecutive exit ramp. Access to destination businesses, such as IKEA, would not be affected by nighttime ramp closures. However, temporary ramp closures are planned to take place at night to minimize effects on businesses, commuters, and the local community.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not change existing business activity.

4.2.2.4 Toll Projects

Build Alternatives 3, 4, and 5

Build Alternatives 3 through 5 all feature managed lanes with tolling options. Each alternative has a distinct tolling structure that defines the Build Alternative as described in Section 1.4, Proposed Project. All tolling option alternatives feature at least one type of tolling exemption for certain occupancy classes of vehicle except Build Alternative 5 (express lane), which requires that all motorists using the managed lane are subject to the toll regardless of the occupancy classification of the vehicle.

The primary purpose of the Build Alternatives is to improve traffic conditions on I-80/US-50 throughout the Community Study Area. Implementation of Build Alternatives 3 through 5 would improve traffic conditions, to varying degrees. As noted in Chapter 5 Traffic and Transportation, the “b” alternatives provide added improvements in travel time and peak-hour volumes compared to the “a” alternatives for all Build Alternatives.

Although the congestion relief and enhanced accessibility associated with the Project would benefit all travelers, low-income travelers may not realize the full benefit from alternatives that include tolling (Build Alternatives 3 through 5). All Build Alternatives with tolling structure, except Build Alternative 5, offer reduced or no payment options for riders in managed lanes who take advantage of carpooling or high vehicle occupancy. Build Alternative 5 offers no reduction in toll for ridesharing, carpooling, or other high vehicle occupancy, and would therefore affect lower-income individuals who cannot afford to pay a toll but would otherwise utilize the managed lanes for ridesharing and carpooling. Use of tolled lanes constitutes a higher financial burden on low-income travelers who choose to use the managed lanes than on higher-income individuals using the tolled lanes. Further analysis of the environmental consequences of Build Alternatives that include tolling are presented in Section 4.4, Environmental Justice and 4.5 Equity. In addition, Caltrans’ future-appointed tolling authority would be required to implement a tolling program in alignment with Caltrans Deputy Directive 43-R1; refer to the description of Build Alternative 3 in Section 1.5.1 for more information about this policy and how excess toll revenues are to be used.

Build Alternatives 2, 6, and 7

Build Alternatives 2, 6, and 7 would not implement tolling or pricing strategies and the benefits to all communities would be equal. These alternatives would have no effect on economic costs for travelers using the managed lanes.

No-Build Alternative

Alternative 1 (No-Build) would not implement tolls; therefore, it would not change economic costs for travelers, the regional economy, employment income, or business conditions.

4.2.3 Avoidance, Minimization, and/or Mitigation Measures

There would be no adverse effects on economic conditions, so no avoidance, minimization, or mitigation measures are proposed. Caltrans standard project features would minimize temporary effects on area businesses during construction. These include requiring the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to businesses within the work zone. A TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP.

4.3 Community Facilities and Services

The I-80/US-50 corridor in the Project area extends through Solano County, Yolo County and the Cities of Davis and West Sacramento and eastward into a portion of the City of Sacramento. The following provides a summary of community facilities, emergency services, and utilities, as well as potential project effects on these facilities and services.

4.3.1 Affected Environment

4.3.1.1 Community Facilities

This section provides a description of community facilities such as community centers, museums, and schools within the Land Use Study Area, which includes the Project area, plus a 1,000-foot buffer. These physical areas directly surrounding I-80/US-50 in the Project area are considered the areas with the potential to experience direct effects on community facilities. Parks and other recreational facilities within the Land Use Study Area are described in Section 2.3, Parks and Recreation.

Community facilities may contribute to community cohesion by providing health and welfare resources to the local population or a means to interact with other members of the community. Community facilities include schools, libraries, museums, recreation facilities, health providers, emergency services, community centers, and other similar institutions. Facilities that are frequently accessed by the elderly, disabled, low-income, and minority populations are especially important because these groups often have limited mobility and may depend on transit for access.

There are various community facilities in the Land Use Study Area within the City of Davis, including the Mondavi Center for the Arts, Davis Musical Theater Company, the Davis Amtrak Station, numerous bus stops, a US Post office, a Community Housing Facility, a California

Department of Forestry and Fire equipment facility, the Yolo Hospice, and Yolo Community Care Continuum (a nonprofit organization serving people with mental illness). Schools within the Land Use Study Area in Davis include the UC Davis Campus, UC Davis Extension sites, the Mondavi Institute for Wine and Food Studies, Peregrine Elementary School, and Pioneer Elementary School. The Land Use Study Area in Davis also includes an equestrian center, gymnastics center, multiple fitness centers, and numerous other commercial community facilities, such as stores and restaurants.

Within unincorporated areas of Solano County and Yolo County, there are occasional farm stands and other commercial facilities along I-80, as well as the Yolo Basin Foundation headquarters.

Community facilities in the Land Use Study Area in West Sacramento include the West Sacramento Health Education Council, West Sacramento KOA Campground and RV Park, numerous bus stops, DaVita Dialysis Center, California School Boards Association headquarters, a US Post Office, the West Sacramento Chamber of Commerce, River City Dance Academy, Collings West Sacramento Teen Center, Margaret McDowell Manor senior apartment complex, and Veterans of Foreign Wars post 8762. Churches within the Land Use Study Area in West Sacramento include Community Lutheran Church, Our Lady of Grace Church, Center for Spiritual Awareness (a nondenominational community church), and River City Apostolic Church. Schools within the Land Use Study Area in West Sacramento include Westmore Oak Elementary School, West Sacramento School for Independent Study, Washington Unified School District offices, and James Marshall Nursery School.

In Sacramento, community facilities in the Land Use Study Area include Tenrikyo High Sacramento Church, Muslim Mosque Association, Saint John's Missionary Baptist Church, and the California Automobile Museum.

4.3.1.2 Emergency Services

I-80/US-50 in the Project corridor pass through numerous jurisdictions and therefore emergency response services are provided by various agencies. In Solano County, emergency services are provided by the County Sheriff's office and Office of Emergency Services. In the City of Davis, the Davis Fire Department provides pre-hospital emergency medical services and responds to fires, hazardous materials incidents, natural disasters, and other emergencies. The Davis Police Department and UC Davis Police Department provide law enforcement. The Yolo County Office of Emergency Services (OES) is the emergency management agency for Yolo County and coordinates the county government's response to disaster or other large-scale emergencies. The Yolo Emergency Medical Services Agency provides emergency medical care.

The West Sacramento Fire Department serves as emergency management coordinator for the City of West Sacramento and works with other City departments, the Yolo County OES, and surrounding jurisdictions. The West Sacramento Police Department provides law enforcement and emergency services. The Sacramento Fire Department is responsible for the management of fire operations within the City of Sacramento during emergency response efforts. The Fire Department coordinates all response efforts through the Sacramento Regional Fire Emergency Communication Center. Fire services also include the provision of emergency medical service,

providing life-saving medical care. The Sacramento Police Department is responsible for law enforcement operations and terrorism prevention within the city.

In addition to its use by emergency responders, US-50 and I-80 are dedicated evacuation routes in Yolo and Sacramento Counties. Yolo County's OES and the City of West Sacramento's Emergency Management division have identified evacuation zones and routes for given neighborhoods. The City of Sacramento also has prepared detail maps showing hypothetical levee breaks at various locations for a 200-year event and the recommended flood evacuation routes (City of Sacramento Department of Utilities 2021). I-80 and US-50 are identified evacuation routes on the Yolo County evacuation zone maps and under many levee break scenarios for the City of Sacramento. I-80 is a critical route for the West Sacramento area.

4.3.1.3 Utilities

There are numerous utility companies with facilities in the Project area including AT&T (fiber-optics/telecommunications) and PG&E (electrical and natural gas). Additionally, there may be aboveground or belowground utilities related to telecommunication, public works, sewer service, water services, and other utility services. Under all Build Alternatives, coordination with utility providers would be conducted to verify utility locations during the Design Phase of Project development. Potholing would be used, as needed, to determine locations of existing underground utilities during the Design Phase.

4.3.2 Environmental Consequences

The following sections describe temporary and long-term effects on community facilities, emergency services, and utilities.

4.3.2.1 Community Facilities

Build Alternatives

The Project would occur primarily within the existing Caltrans ROW and there would be no adverse effects on the activities, features, or attributes of any community facilities in or near the Land Use Study Area.

Under all Build Alternatives, there would be temporary traffic delays and potential ramp closures on I-80/US-50 in the Project area during construction that could result in temporary effects on access of community facilities in and near the Project Area. To minimize impacts on access to community facilities during construction, night work would be conducted. Because Build Alternative 7 would not add new lanes, but would rather repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore result in fewer delays than those under Build Alternatives 2 through 6. Since the "b" alternatives would construct the elevated I-80 connector, the "b" alternatives construction period would have a longer duration and require additional lane closures than Alternatives 2 through 6. With the "b" alternatives, a temporary full closure may be needed on westbound US-50; the primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. All Build

Alternatives would ultimately improve circulation along I-80/US-50 in the Project corridor, which could result in improved access to community facilities.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect community facilities in the Land Use Study Area.

4.3.2.2 Emergency Services

Build Alternatives

Temporary traffic delays and ramp closures on I-80/US-50 during construction of all Build Alternatives could result in temporary delays in emergency services. Because Build Alternative 7 would not add new lanes, but would rather repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore result in fewer delays than those under Build Alternatives 2 through 6. Since the “b” alternatives would construct the elevated I-80 connector, the “b” alternatives 8 construction period would have a longer duration and require additional lane closures than Build Alternatives 2 through 6. With the “b” alternatives, a temporary full closure may be needed on westbound US-50; the primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. All Build Alternatives would ultimately improve circulation and reduce congestion along I-80/US-50 in the Project corridor, which could result in improved emergency service access and response times.

To ensure emergency services are maintained during construction, a TMP would be developed by Caltrans consistent with Caltrans’ standard procedures. The TMP would include elements such as traffic controls to minimize speeds/congestion and other measures to maintain access for police, fire, and medical services along I-80/US-50 in the Project area during construction. Consistent with Caltrans BMPs, all emergency response agencies in the Project area would be notified of the project construction schedule and would have access to I-80/US-50 throughout the construction period.

No-Build Alternative

As traffic conditions deteriorate over time, emergency response times through the Project corridor could increase under Alternative 1 (No-Build).

4.3.2.3 Utilities

Build Alternatives

The Build Alternatives would result in a number of potential conflicts with existing utilities that are present along the I-80/US-50 corridor. Utility companies would require verification and involvement. Overhead lines near the new managed lane connector at the I-80/US-50 separation in West Sacramento may have to be relocated. An estimated 15 test hole sites at eight different locations would occur prior to construction, pertaining to natural gas lines running transversely across I-80, the Yolo Causeway, and West Capitol Avenue in Sacramento, at the

area where the new managed lane would be constructed with retaining walls and columns. The positive locations would verify whether the gas line would require relocation. The utilities on the Yolo Causeway would not have to be relocated. There is potential for six PG&E pole relocations due to the widening of I-80 for restriping and adding a lane and creating a new shoulder. With the new overhead managed lane component, there would be a need to relocate of up to four 115-kilovolt towers or to keep them in place and increase the tower height. Consistent with Caltrans standard BMPs, Caltrans would coordinate with utility providers to plan for relocation of any utilities to ensure utility customers would be notified of potential service disruptions before relocation.

All Build Alternatives also would include installation of a fiber-optic cable line and associated fiber optic splice boxes within the roadbed at the eastbound outside shoulder of I-80 from Pedrick Road in Solano County at about post mile 39.76 to post mile 4.35 in Yolo County.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not affect utilities in the Land Use Study Area.

4.3.3 Avoidance, Minimization, and/or Mitigation Measures

Caltrans standard project features would minimize temporary effects on community facilities and emergency services during construction. The contractor will be required to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to community facilities within the work zone. A TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, community facilities, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP.

Additionally, as described under Section 4.3.2.3, verification and involvement would be coordinated with utility owners. Utility conflict, relocation, and cable protection needs would be determined, and disruption of utility service would be minimized.

4.4 Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Impacts and benefits of transportation projects result from the physical construction of such facilities and from their ability to improve or impede access to and from neighborhoods and other portions of the region. The environmental justice analysis in this section examines whether the improvements would benefit low-income and minority communities equitably, whether ethnic minority and/or low-income populations in the Project area would experience disproportionately adverse effects, and whether the effects experienced by such populations would be inconsistent with the benefits created.

The concept of environmental justice stems from federal and state laws and policies developed to ensure that the civil rights of minority and low-income populations are protected and that the decision-making process for federally funded projects is free from discrimination. A brief description of these applicable regulations is provided below.

Title VI of the Civil Rights Act and Executive Order 12898. This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” Title VI states that “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal or federally funded projects on minority and low-income populations.

Federal Highway Administration Environmental Justice Strategy. Adopted in 1997 and updated in 2012, the U.S. Department of Transportation (USDOT) Environmental Justice Order (Department Order 5610.2(a)) promotes the principles of environmental justice in USDOT programs, policies, and activities. The FHWA issued its own environmental justice guidance (FHWA 2015), which outlines three main principles underlying environmental justice:

- Avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority and low-income populations.
- Ensure full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income groups.

Under this guidance, public agencies are obligated to disclose any adverse effects of transportation plans, programs, and projects that fall disproportionately on low-income and minority communities, to rigorously examine alternatives that could eliminate or reduce the severity of such effects, and to ensure that these communities receive an equitable distribution of the benefits of transportation investments.

California Laws and Regulations. “Environmental Justice” is defined in California law as the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (California Government Code Section 30107.3[a]). California legislation and guidance issued in recent years aim to more comprehensively address environmental justice issues, including Senate Bill (SB) 1000 (2016), SB 535 (2012), Assembly Bill (AB) 1550 (2016), AB 617 (2017), and the Governor’s Office of Planning and Research (OPR) *2020 General Plan Guidelines, Environmental Justice Element*. SB 1000 requires that general plans include an environmental justice element, or related goals, policies, and objectives in other general plan elements, with the goal of reducing the disproportionate health

risks in disadvantaged communities, promote community engagement, and prioritize improvements that address the needs of at-risk communities. In June 2020, OPR published updated General Plan Guidelines that include revised guidance in response to SB 1000. To help address communities disproportionately burdened by sources of pollution, SB 535, AB 1550, and AB 617 prioritize spending of proceeds from the state's cap-and-trade program to reduce GHGs on projects that benefit and/or occur within disadvantaged communities.

4.4.1 Affected Environment

The Community Study Area consists of a variety of socioeconomic neighborhoods. The ethnic composition of the Community Study Area, as described in Section 4.1 and summarized in Table 4-3, is similar in diversity to the Regional Study Area. As described in Section 4.2 and summarized in Table 4-7, median household income in the Community Study Area is similar to the Regional Study Area. According to the U.S. Census Bureau, which defines poverty thresholds by household income, size of family, and number of children, approximately 10.9 percent of families in the Community Study Area are below the U.S. Census 2019 federal poverty level, which is a higher percentage than the Regional Study Area (9.4 percent) and Yolo County (9.0 percent).

4.4.1.1 Environmental Justice Communities

For this analysis, environmental justice communities are defined consistently with the FHWA environmental justice strategy as areas that have concentrated populations of low-income and/or communities of color. The Council on Environmental Quality's (CEQ's) Environmental Justice Guidance under the NEPA (CEQ 1997) defines low-income populations using the annual poverty thresholds from the Census Bureau, and minority populations as areas where the minority population exceeds 50 percent or the minority population percentage is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). FHWA definitions for low-income and minority individuals are intended to be consistent with the definitions for EO 12898 that have been issued by CEQ and the U.S. Environmental Protection Agency (USEPA), with the following exceptions: FHWA defines low-income individuals using the poverty guidelines from the Department of Health and Human Services (DHHS) rather than U.S. Census Bureau, and the minority category of Native Hawaiian and Other Pacific Islander was added. The primary difference between the U.S. Census Bureau poverty thresholds and the DHHS poverty guidelines is the DHHS have geographic variation to account for the much higher costs of living in Alaska and Hawaii (Institute for Research on Poverty 2023).

The CEQ and FHWA guidelines were adopted for use at the national level and do not take into consideration income and population characteristics specific to California. California has a high cost of living, so the federal poverty level does not adequately capture households that experience poverty in California. Additionally, California and the Regional Study Area have a more diverse population than much of the nation, so a 50 percent minority criteria would not differentiate areas with concentrated minority populations. The minority population has grown to half or more of the population in Sacramento and Yolo counties, and 45 percent of the region's population (SACOG 2019). California is also unique in that it has the largest Native American

population of any U.S. state, with 109 federally recognized tribes in 34 counties, and many more without Federal recognition (Caltrans 2021b). California is facing a growing housing shortage and affordability issue, ranking 49th out of 50 states in housing units per capita; and while California is home to only 12 percent of the U.S. population, nearly a quarter of all unhoused people in the U.S. reside in California (Caltrans 2021b). Because of these unique characteristics in California and the Regional Study Area, national definitions of environmental justice communities are not recommended; Caltrans' *Standard Environmental Reference Handbook* cautions that, "while these are the official definitions for NEPA analyses, they may not be appropriate for assessing environmental justice issues in transportation plans, particularly in a state like California where minority individuals are the majority of residents and living expenses in some areas are unusually high." (Caltrans 2011)

SACOG has defined environmental justice communities for the regional planning area, taking into consideration the differences in income and diversity unique to this region. SACOG has integrated those definitions into the MTP/SCS and the SACSIM traffic model, allowing for a robust analysis of changes in traffic patterns for environmental justice communities. To allow for a more dynamic analysis of project effects on environmental justice travelers and to provide consistency with the MTP/SCS and other regional planning documents, Caltrans has used the environmental justice community definitions from SACOG for this analysis.

Environmental justice communities within the Regional Study Area are defined below and shown in Figure 4-1.

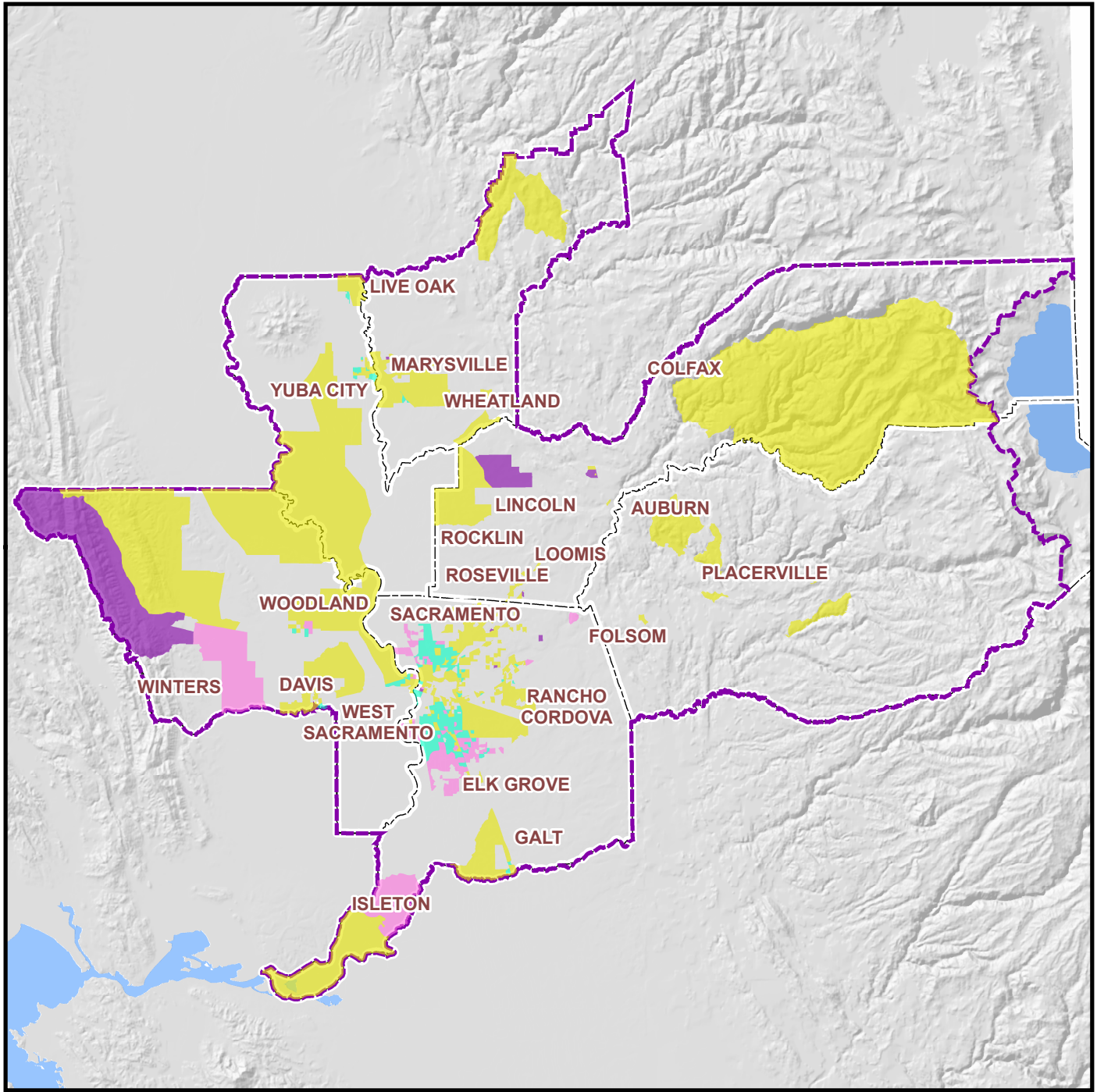
- Low-Income Communities: Census tracts or block groups where 40 percent or more of the population earns 200 percent or less of the federal poverty level.
- Minority Communities: Census tracts or block groups where 70 percent or more of the population are non-white and/or Hispanic or Latino, which includes Asian, Native Hawaiian and Other Pacific Islander, Black or African American, Hispanic or Latino, American Indian and Alaska Native, or other non-white ethnic groups.

The SACOG low-income communities criteria is more inclusive than the FHWA criteria because it considers populations making 200 percent or less of the federal poverty level, compared to FHWA criteria using 100 percent or less of the federal poverty level. This broader income criteria is used to recognize the much higher cost of living in California. The SACOG minority communities criteria of 70 percent or more minority is used to define a "meaningfully greater" proportion of minority residents in a region with high ethnic diversity, as recommended by FHWA and CEQ. The 70 percent criteria distinguishes areas of concentrated minority populations given that the percent minorities in Sacramento County (55.3 percent), the City of Sacramento (67.6 percent), and the State (62.8 percent) would exceed the 50 percent national criteria.

Environmental justice communities within the Regional Study Area are shown in Figure 4-1 (SACOG 2019). Approximately 38 percent of the Regional Study Area population lives in the defined environmental justice communities (SACOG 2019).

The I-80 corridor is heavily used in Yolo County because it is the only west-east connector that crosses the Yolo Basin, which separates the cities of Davis and West Sacramento. In the larger regional picture, it is also the only west-east connector between the Bay Area and the City of Sacramento. Within the Community Study Area, the percentage of individuals living below the poverty line (approximately 21.5 percent) is higher than the percentage of both the Regional Study Area and California as a whole (13.5 and 13.4 percent, respectively).

Within the Community Study Area, low-income, minority, and low-income/minority communities are located in portions of downtown and south Davis, along I-80 and US-50 through most of West Sacramento, and near the US-50/I-5 interchange in Sacramento (Figure 4-2). Table 4-15 identifies census block groups in the Community Study Area that meet the income and minority criteria as environmental justice communities. Based on this evaluation, approximately 39 percent of residents in the Community Study Area (15 of 37 census block groups) live in defined environmental justice communities. The percentage of environmental justice population in the Community Study Area (39 percent) is similar to the percentage in the Regional Study Area (38 percent).



Legend

- SACOG Planning Area
- County Boundary

Environmental Justice Areas

- Low Income
- Race/Ethnicity
- Race/Ethnicity and Low Income
- Other Vulnerability

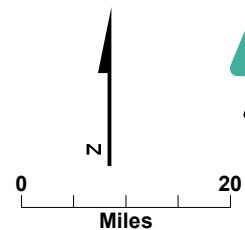
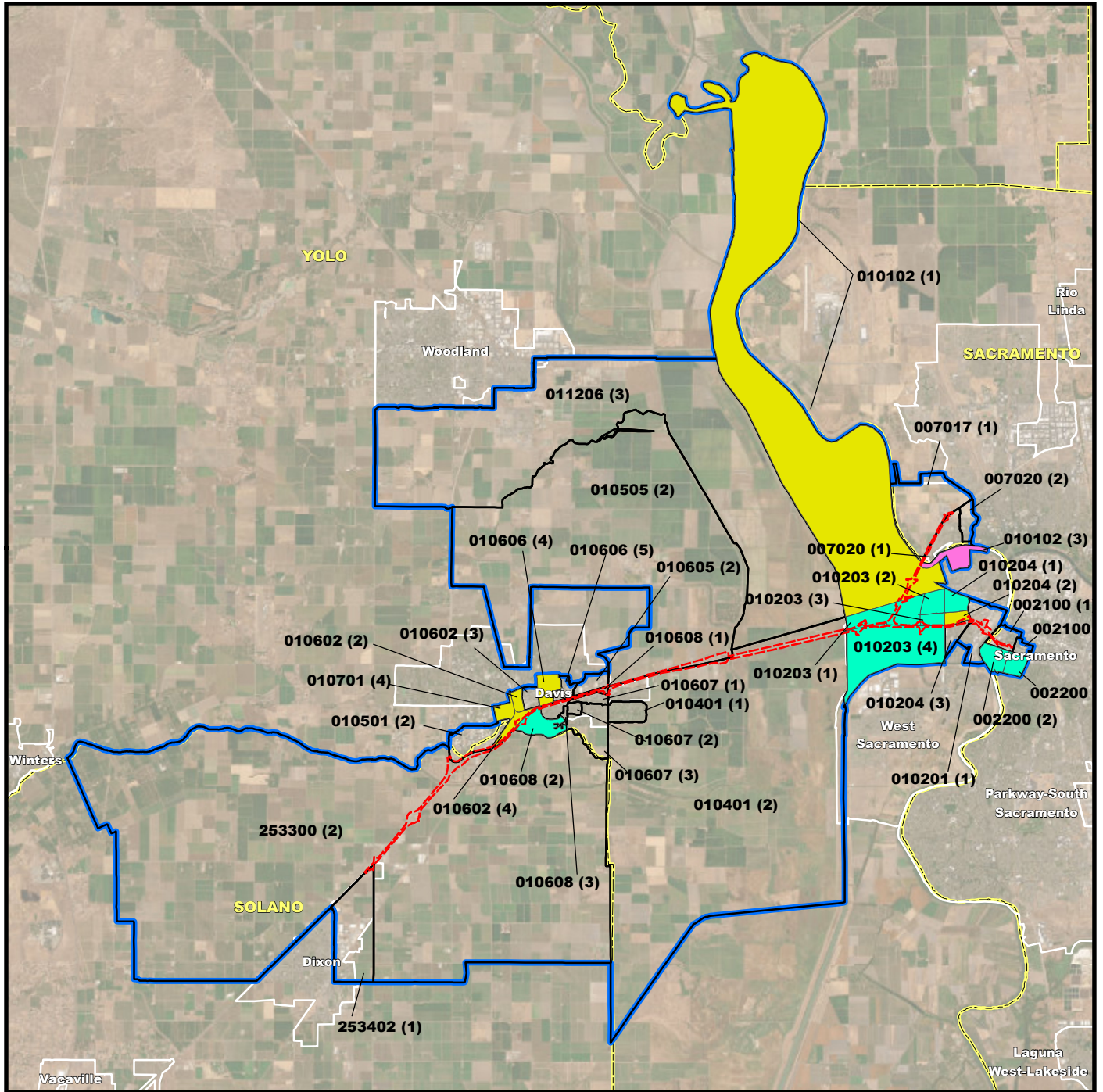


Figure 4-1
Environmental Justice Areas
in the Regional Study Area

Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties,
California

Service Layer Credits:
ESRI, National Geographic, DigitalGlobe, GeoEye
Data Sources: SACOG, CalTrans, Stantec,
AWE, 2021-2022 Date: 8/30/2022



Legend

- Project Limits
- Community Study Area
- Census Block Groups
- Low-income Community
- Minority and Low-income Community
- Minority Community

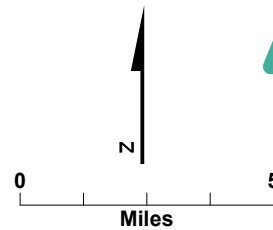


Figure 4-2
Environmental Justice Areas
in the Community Study Area
 Yolo 80 Corridor Improvement Project
 EA 03-3H900
 Solano, Yolo, and Sacramento Counties,
 California

Service Layer Credits:
 ESRI, National Geographic, DigitalGlobe, GeoEye
 Data Sources: CalTrans, Stantec, AWE, 2021-2022
 Date: 4/18/2023

Table 4-15. Environmental Justice Communities by Census Block Group

Census Tract (Block Group)	Population (2019)	Low-income Community ¹	Minority Community ²	Environmental Justice Community?
Segment 1a Kidwell Road to Solano/Yolo County Line				
2533 (2)	816	No	No	No
2534.02 (1)	1,751	No	No	No
105.01 (2)	3,078	No	No	No
Segment 1b Solano/Yolo County Line to Yolo Causeway				
106.02 (2)	1,101	Yes	No	Yes–Low Income
106.02 (3)	907	No	No	No
106.02 (4)	1,178	Yes	No	Yes–Low Income
106.06 (4)	3,122	Yes	No	Yes–Low Income
106.06 (5)	581	No	No	No
106.08 (1)	1,546	No	No	No
106.08 (2)	4,062	Yes	Yes	Yes– Low-Income/Minority
106.08 (3)	816	No	No	No
107.01 (4)	642	Yes	No	Yes–Low Income
106.05 (1)	1,233	No	No	No
105.05 (2)	527	No	No	No
106.07 (1)	1,137	No	No	No
106.07 (2)	727	No	No	No
106.07 (3)	2,292	No	No	No
104.01 (1)	529	No	No	No
104.01 (2)	2,773	No	No	No
Segment 1c Yolo Causeway to Enterprise Boulevard				
112.06 (3)	4,951	No	No	No
Segment 2 Enterprise Boulevard to West El Camino Avenue				
101.02 (1)	2,706	Yes	No	Yes–Low Income
101.02 (3)	1,081	No	Yes	Yes–Minority
70.20 (1)	2,548	No	No	No
70.20 (2)	1,788	No	No	No
70.17 (1)	1,537	No	No	No
Segment 3a I-80/US-50 to Jefferson Boulevard				
102.03 (1)	1,004	Yes	Yes	Yes– Low-Income/Minority
102.03 (2)	2,352	Yes	Yes	Yes– Low-Income/Minority
102.03 (3)	1,740	Yes	Yes	Yes– Low-Income/Minority
102.03 (4)	259	Yes	No	Yes– Low-Income/Minority
102.04 (1)	2,957	Yes	Yes	Yes– Low-Income/Minority

Census Tract (Block Group)	Population (2019)	Low-income Community ¹	Minority Community ²	Environmental Justice Community?
102.04 (2)	512	Yes	No	Yes–Low Income
102.04 (3)	1,720	No	No	No
Segment 3b Jefferson Boulevard to I-5				
102.01 (1)	2,331	No	No	No
22 (1)	2,113	Yes	Yes	Yes– Low-Income/Minority
22 (2)	1,115	Yes	Yes	Yes– Low-Income/Minority
21 (1)	901	No	No	No
21 (3)	632	No	No	No

Notes:

1 Low-income Community = 40 percent or more of the population in this census tract earns 200 percent or less of the federal poverty level

2 Minority Community = 70 percent or more of the population are non-white and/or Hispanic

Source: U.S. Census Bureau 2019

When evaluating transportation improvement effects on environmental justice communities, it is important to recognize that, on average, residents living in these communities walk, bicycle, and take transit at a higher rate than non-environmental justice households. Within the Regional Study Area, transit use in environmental justice communities is more than twice the rate for non-environmental justice communities, and environmental justice communities have a 65 percent greater rate for walking and bicycling region-wide than non-environmental justice communities (SACOG 2019). Vehicle availability contributes to this trend; 11 percent of regional households in environmental justice communities do not have a vehicle, compared to 4 percent in non-environmental justice communities (SACOG 2019).

Table 4-16 shows vehicle ownership in the Community Study Area. As shown in the table, 8.0 percent of households in the Community Study Area have no vehicle, which is consistent with 8.0 percent of households in Yolo County and is more than the 6.1 percent of households in the Regional Study Area. Table 4-17 below shows car ownership by census tract in the Community Study Area; data on car ownership is not available by block group. As shown in the table, households in environmental justice communities tend to have a higher rate of no car ownership than non-environmental justice households. However, there are notable exceptions in the Community Study Area. For example, Tract 105.01 in Davis, which includes the UC Davis campus, has the highest percentage of households without vehicles (18.5 percent) in the Community Study Area, which is not a function of income but rather of the student population, availability of non-motorized options, and lifestyle choices for Davis residents.

Table 4-16. Regional Car Ownership

Area	Households with No Vehicle	Households with 1 Vehicle	Households with 2 Vehicles	Households with 3 or more Vehicles
California	7.1%	30.4%	37.2%	25.3%
Regional Study Area	6.1%	30.7%	38.6%	24.6%

Area	Households with No Vehicle	Households with 1 Vehicle	Households with 2 Vehicles	Households with 3 or more Vehicles
Yolo County	8.0%	30.4%	36.6%	25.0%
*Community Study Area	8.0%	32.8%	35.7%	22.1%

Source: U.S. Census Bureau 2019 Table DP04

*Note: U.S. Census Bureau car ownership data is available by census tract, not block group.

Table 4-17. Car Ownership by Census Tract

County	Census Tract	Households with No Vehicle	Households with 1 Vehicle	Households with 2 Vehicles	Households with 3 or more Vehicles	EJ Community
Segment 1a Kidwell Road to Solano/Yolo County Line						
Solano	2533	1.7%	13.7%	26.9%	57.7%	No
Solano	2534.02	4.0%	18.3%	35.3%	42.4%	No
Yolo	105.01	18.5%	43.3%	27.2%	10.9%	No
Segment 1b Solano/Yolo County Line to Yolo Causeway						
Yolo	106.02	12.2%	40.5%	29.5%	17.8%	Yes
Yolo	106.06	8.8%	31.6%	39.7%	19.9%	No
Yolo	106.08	8.4%	33.0%	31.6%	27.0%	Yes
Yolo	107.01	8.9%	46.5%	26.3%	18.4%	Yes
Yolo	106.05	3.0%	28.2%	46.2%	22.6%	Yes
Yolo	105.05	2.7%	30.6%	46.7%	19.9%	No
Yolo	106.07	4.2%	29.5%	46.1%	20.2%	No
Yolo	104.01	1.3%	27.7%	39.6%	31.4%	No
Segment 1c Yolo Causeway to Enterprise Boulevard						
Yolo	112.06	4.0%	15.8%	45.1%	35.1%	No
Segment 2 Enterprise Boulevard to West El Camino Avenue						
Yolo	101.02	2.6%	43.0%	31.7%	22.8%	Yes
Sacramento	70.20	1.2%	23.9%	58.7%	16.1%	No
Sacramento	70.17	0.0%	41.0%	28.3%	30.7%	No
Segment 3a I-80/US-50 to Jefferson Boulevard						
Yolo	102.03	16.8%	41.4%	32.6%	9.1%	Yes
Yolo	102.04	8.0%	42.6%	35.7%	13.7%	Yes
Segment 3b Jefferson Boulevard to I-5						
Yolo	102.01	5.5%	42.4%	31.4%	20.7%	No
Sacramento	22	8.2%	55.9%	28.9%	7.0%	Yes
Sacramento	21	16.0%	42.4%	30.9%	10.7%	No

Source: U.S. Census Bureau 2019 Table DP04

*Note: U.S. Census Bureau car ownership data is available by census tract, not block group.

While vehicle availability in environmental justice communities is less than in non-environmental justice communities, the majority of environmental justice area residents use personal vehicles for transportation (SACOG 2019). How well the existing and future infrastructure supports the transportation needs of these communities is a significant factor in their ability to access jobs, schools, services, and affects their overall health and quality of life.

4.4.1.2 Environmental Justice Travelers

The *I-80/US-50 Travel Pattern Data Memorandum* prepared for the Project (Fehr & Peers 2021a) summarizes available data on existing travel patterns for the I-80/US-50 corridor, including use by environmental justice community members. SACOG contracted with Replica to provide travel pattern information using anonymized mobile source data. Using the Replica data, Tables 4-18 and 4-19 provide existing daily I-80/US-50 traveler data by income and race/ethnicity for two freeway segments: I-80 at Yolo Causeway and US-50 at Sacramento River. This data is limited to those individuals who reside in the Regional Study Area. As shown in the data, 22.6 to 23.3 percent of daily travelers had yearly incomes of less than \$40,000, and minority community members represent between 46.7 and 50.2 percent of travelers using the freeway.

Table 4-18 Travelers by Household Income

Location	Household Income	Eastbound		Westbound	
		Number	Percent	Number	Percent
I-80 at Yolo Causeway	\$0 to \$20,000	3,387	10.5%	3,456	10.3%
	\$20,001 to \$40,000	3,931	12.2%	4,149	12.3%
	\$40,001 to \$80,000	8,137	25.3%	8,735	25.9%
	\$80,001 to \$100,000	3,160	9.8%	3,277	9.7%
	>\$100,000	13,583	42.2%	14,103	41.8%
	Total	32,198	100%	33,720	100%
US-50 at Sacramento River	\$0 to \$20,000	5,897	10.2%	5,611	10.1%
	\$20,001 to \$40,000	7,469	13.0%	7,334	13.2%
	\$40,001 to \$80,000	14,948	26.0%	14,587	26.2%
	\$80,001 to \$100,000	6,110	10.6%	5,807	10.4%
	>\$100,000	23,190	40.3%	22,342	40.1%
	Total	57,614	100%	55,681	100%

Source: SACOG Replica model output provided by Caltrans (November 2020). Reported in Fehr & Peers 2021a.

Notes: Number and percent of travelers has been filtered to those who had trips with their origin and destination within the SACOG region. Income values are assumed to be in 2019 dollars to match the model period.

Table 4-19. Travelers by Race and Ethnicity

Location	Race and Ethnicity	Eastbound		Westbound	
		Number	Percent	Number	Percent
I-80 at Yolo Causeway	White, Not Hispanic or Latino Origin	17,169	53.3%	17,915	53.1%
	Hispanic or Latino Origin	7,124	22.1%	7,742	23.0%
	Asian, Not Hispanic or Latino Origin	4,569	14.2%	4,722	14.0%
	Black, Not Hispanic or Latino Origin	1,726	5.4%	1,704	5.1%

Location	Race and Ethnicity	Eastbound		Westbound	
		Number	Percent	Number	Percent
	Two or More Races, Not Hispanic or Latino Origin	1,179	3.7%	1,201	3.6%
	Native Hawaiian or Pacific Islander, Not Hispanic or Latino Origin	235	0.7%	233	0.7%
	American Indian or Alaskan Native, Not Hispanic or Latino Origin	104	0.3%	114	0.3%
	Some Other Race, Not Hispanic or Latino Origin	92	0.3%	89	0.3%
	Total	32,198	100%	33,720	100%
US-50 at Sacramento River	White, Not Hispanic or Latino Origin	28,707	49.8%	27,798	49.9%
	Hispanic or Latino Origin	13,489	23.4%	13,153	23.6%
	Asian, Not Hispanic or Latino Origin	8,390	14.6%	8,043	14.4%
	Black, Not Hispanic or Latino Origin	3,656	6.4%	3,450	6.2%
	Two or More Races, Not Hispanic or Latino Origin	2,318	4.0%	2,236	4.0%
	Native Hawaiian or Pacific Islander, Not Hispanic or Latino Origin	707	1.2%	675	1.2%
	American Indian or Alaskan Native, Not Hispanic or Latino Origin	183	0.3%	175	0.3%
	Some Other Race, Not Hispanic or Latino Origin	164	0.3%	151	0.3%
	Total	57,614	100%	55,681	100%

Source: SACOG Replica model output provided by Caltrans (November 2020). Reported in Fehr & Peers 2021a.
Notes: Number and percent of travelers has been filtered to those who had trips with their origin and destination within the SACOG region.

Residents living below the poverty level within the Community Study Area walk, bicycle, and take transit at a higher rate than residents living above the poverty level. Within the Regional Study Area, transit use in low-income communities is more than twice the rate for higher-income communities, and low-income communities have a 65 percent greater rate for walking and bicycling region-wide (SACOG 2019). In the Community Study Area, more workers in the Davis neighborhoods use public transportation or walk or bike to work than workers in other census tracts (Table 4-12), so these residents may have more options for public transit and alternative transportation modes than other areas.

4.4.2 Environmental Consequences

The environmental justice analysis in this section examines whether minority and/or low-income populations in the Project area would experience disproportionately high and adverse effects, and whether the improvements would benefit low-income and minority communities equitably. FHWA Order 6640.23A defines an adverse effect as one that:

- is predominately borne by a minority population and/or a low-income population; or

- will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

4.4.2.1 Environmental Justice Communities

In determining whether an environmental justice community would experience disproportionately adverse effects or whether impacts are predominantly borne by an environmental justice community, the analysis considers the change in the roadway capacity, traffic, congestion, travel times, travel cost, and facility footprint, and the resulting direct and indirect effects on the human and natural environment, both short-term construction impacts and on-going effects associated with management and operations of the project. When projects widen and/or add capacity to the roadway, there is potential for property acquisitions and relocations in environmental justice communities; effects on environmental justice neighborhood cohesion; and changes in noise, air quality, and visual conditions in environmental justice communities attributable to the construction and operation of that project.

Build Alternatives

The Build Alternatives would occur primarily within the existing Caltrans ROW but would require one permanent ROW easement outside existing Caltrans ROW within census tract 102.03, an environmental justice community. Under all Build Alternatives, Caltrans would acquire ROW to construct a Park-and-Ride Facility with 300 parking spaces on the east side of Enterprise Boulevard. The subject parcel is currently vacant, and the new facility would be located partially within existing Caltrans ROW and partially outside the existing Caltrans ROW. Surrounding land uses include highway service commercial uses such as restaurants and gas stations. The development of the Park-and-Ride Facility would be consistent with existing land uses and would not displace minority or low-income residents, businesses, or employees. There would be no disruption or adverse effect on existing land uses or community members in the surrounding areas.

Since households in environmental justice communities generally have fewer vehicles than households in non-environmental justice communities (Table 4-17), the benefits of the Build Alternatives may not be realized by environmental justice community members who do not own a vehicle. However, ITS and auxiliary lane improvements with all Build Alternatives would help facilitate circulation between I-80 and the surrounding surface streets, benefiting environmental justice community members using bus and transit service entering and exiting the highway.

As described in Section 4.1.2, Project impacts on air quality, noise, and visual resources can affect community character for both environmental justice communities and non-environmental justice communities. The severity of these community impacts is a function of proximity to the highway facility. As shown on Figures 4.2 and 4.3, communities adjacent to highways in the Regional Study Area and Community Study Area, respectively, are a mix of environmental justice and non-environmental justice neighborhoods.

Build Alternatives 2 through 6 would widen the highway footprint primarily to the center median and incorporate new signage and structural elements in environmental justice community areas.

These changes could modify the noise and visual setting of these communities. Build Alternative 7 would have similar effects as Build Alternatives 2 through 6 but would not expand into the center median or add new travel lanes. The noise study completed for the Project (Illingworth and Rodkin 2022) concluded that future noise levels along I-80 under the Build Alternatives would increase from 0 to +2 dBA at all receptors when compared to existing conditions. This modest increase in noise would not substantially affect adjacent communities and would not disproportionately affect community character or quality of life in environmental justice communities compared to non-environmental justice communities or be predominantly borne by environmental justice communities in the Community Study Area.

Build Alternatives 2 through 6 would widen to the outside on the north side of I-80 from post mile 0.1 to post mile 1.0 in Yolo County, and on the south side of I-80 from post mile 44.4 in Solano County to post mile 0.7 in Yolo County. Therefore, travel lanes would move closer to neighboring properties along these segments and could increase traffic noise. This widening to the outside occurs within an environmental justice community (census tract 106.02 block group 4). Adjacent land uses include a small area of multi-family residential development including a mobile home park, Olive Court (an affordable housing community), and the Arbors (apartment complex). The noise study indicates that future noise levels would increase from 0 to +2 dBA at the sensitive receptors located in this environmental justice community as a result of this Project by the 2049 horizon year, when compared to existing conditions and also when compared to the No-Build alternative. A sound wall, mature trees, and vegetation are located between I-80 and these residential properties, creating a buffer for noise impacts. This modest increase in noise would not substantially affect community character or quality of life in environmental justice communities compared to non-environmental justice communities.

Disparities exist in air pollutant exposure for environmental justice communities in California. An analysis of vehicular particulate matter in California found that on average, African American, Latino, and Asian Californians are exposed to more PM_{2.5} pollution from cars, trucks, and buses than white Californians (Union of Concerned Scientists 2019). This analysis evaluated whether the Build Alternatives would exacerbate pollutant exposure for environmental justice communities in the Community Study Area. As noted in Section 4.1.2, the air quality analysis completed for the Project (Caltrans 2023b) determined that the Build Alternatives would not substantially change the traffic mix and future emissions for all pollutants except fugitive particulate matter are expected to be lower than present levels. Fugitive particulate matter emitted with the No-Build and Build Alternatives is proportional to changes in VMT, so each alternative differs in its relative change in emission levels; see a summary of those results in Section 4.1.2. The Build Alternatives would not increase the pollution burden on neighboring environmental justice communities in the long term.

The visual impact analysis completed for the project (Stantec 2022) concluded that the Build Alternatives would affect the visual environmental of the corridor by removing center median functional plantings, increasing paved surfaces, and adding barriers and fencing, new roadway structures, new overhead and roadside signs, lighting, a Park-and-Ride Facility, and ITS elements, all of which collectively would result in an increasingly urbanized aesthetic. Although Alternative 7 would not add lanes, the repurposing of the existing lanes for HOV 2+ lanes will require new signage. Both environmental justice and non-environmental justice communities

that front the highway would be affected by these visual impacts. As noted in Section 4.1.2, the resulting effect of these visual changes on community character would be modest. This impact is not appreciably more severe in environmental justice communities than the non-environmental justice communities or predominantly borne by environmental justice communities in the Community Study Area.

During construction, noise and fugitive dust from construction activities could affect adjacent properties. These effects would be experienced by residents in the immediate Project area, including environmental justice community members and other communities immediately adjacent to construction activities. Roadway construction activities typically occur for relatively short periods of time as construction proceeds along the Project alignment. Construction noise would mostly be of concern in areas where impulse-related noise levels from construction activities would be concentrated for extended periods of time, where noise levels from individual pieces of equipment are substantially higher than ambient conditions, or when construction activities would occur during noise-sensitive early morning, evening, or nighttime hours. This impact is not appreciably more severe in environmental justice communities than the non-environmental justice communities or predominantly borne by environmental justice communities in the Community Study Area. Construction effects would be minimized by adhering to Caltrans' standard specifications and BMPs for noise abatement and fugitive dust control.

Short-term, intermittent, and temporary ramp and lane closures during construction would inconvenience all roadway users and could require alternative traffic routing. A TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. With a planned public outreach program to keep the area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule, temporary adverse access and circulation effects on adjacent environmental justice communities would be reduced.

Because improvements under the Build Alternatives would occur within or immediately adjacent to an existing freeway corridor, the Build Alternatives would not divide or create disproportionate effects on these communities. Implementation of the Build Alternatives would improve traffic conditions, to varying degrees, on I-80. This is anticipated to result in a beneficial effect on neighborhoods and community cohesion by reducing cut-through traffic within the adjacent neighborhoods, including adjacent environmental justice communities. At present, motorists traveling along I-80 often exit the facility and seek less congested alternative routes within adjacent neighborhoods in West Sacramento and Davis when free-flowing traffic slows or stops.

Use of toll lanes (Alternatives 3 through 5) by environmental justice (low-income) travelers would cause a higher financial burden that is predominantly borne by environmental justice communities and may be considered a disproportionate impact. Caltrans has adopted AMMs to reduce potential adverse effects on low-income drivers. Refer to Section 4.4.2.2 Environmental Justice Travelers and Tolling and Section 4.4.3 regarding AMMs.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not cause disproportionately high and adverse direct effects on environmental justice communities.

4.4.2.2 Environmental Justice Travelers and Tolling

To evaluate environmental justice effects of tolling options for managed lanes, the analysis relies on the NCHRP's *Assessing the Environmental Justice Effects of Toll Implementation or Rate Change: Guidebook and Toolbox* (NCHRP 2018). Tolling may adversely affect environmental justice travelers by introducing a toll cost on the facility users and implementing toll payer account terms that may create unintentional obstacles to environmental justice travelers wanting to use the tolled lane. Toll payer account terms and electronic toll collection may require minimum balances, charge monthly fees, limit payment methods (e.g., credit card only), require deposit or payment for a transponder, and prevent use by linguistically isolated households. Additionally, the ability for environmental justice travelers to benefit from managed lanes tolling improvements can be influenced by the affordability of transportation options, expressed as both cost and time to travel.

Recent studies addressing equity of tolled lanes on lower income groups document a more complex relationship between tolled lanes and income level. Research suggests that the use of priced lanes relates more to user schedule flexibility and route availability than income (FHWA 2022). A commuter's decision on whether to use priced lanes depends on many factors, not solely on income level. For example, use of toll lanes is influenced by the cost of longer travel times, reported as lost wages or daycare late fees, which incentivizes use of tolled lanes to achieve travel time improvements for drivers of variable income levels. Increased costs to tolled users are frequently offset by faster, more reliable travel, and transit users typically experienced a faster, higher quality trip on the tolled facility (FHWA 2015c, FHWA 2014). A number of tolled lane projects also report expanded travel options through transit improvements and reinvestment of toll revenue into transit options (FHWA 2015c). Surveys at several locations indicate a persistent perception of unfairness for people with limited incomes (FHWA 2014, FHWA 2015c, FHWA 2022).

Build Alternatives 3, 4, and 5

Improved traffic flow and movement of travelers on I-80/US-50 within the Project limits under the tolled lane alternatives (Build Alternatives 3 through 5) would benefit a wide range of communities including those defined as environmental justice communities. With the lane addition on I-80 and US-50 under Build Alternatives 3 through 5, the volume of vehicles and travelers moved through the corridor during peak commute hours would increase compared to the No-Build Alternative. The "b" alternatives further improve peak-hour travel times and volumes compared to the "a" alternatives. Despite the added capacity, congested conditions would still be expected in both directions during peak hours.

For all tolled lane alternatives (Build Alternatives 3 through 5), both environmental justice and non-environmental justice travelers would experience greater vehicle and person throughput than under the No-Build Alternative. Build Alternative 4 (HOT3+) would have the best peak

period performance of the tolled lane alternatives, followed by Build Alternative 5 (express lanes). Build Alternative 3 (HOT2+) would not perform as well as Build Alternatives 4 and 5 because more vehicles would be eligible for the managed lane, with more vehicles entering and leaving the managed lane, causing congestion (Fehr & Peers 2023). The results also indicate that Build Alternatives 3 and 4 would incentivize increased vehicle occupancy during the peak commute hours, whereas Build Alternative 5 (express lanes) would provide less incentive for increasing vehicle occupancy because all vehicles would pay the same toll regardless of occupancy. Since the SACSIM travel demand model does not make assumptions about traveler's ability or willingness to pay a toll based on a driver's income, it does not accurately predict tolled lane use by low-income drivers. The SACSIM model uses an iterative looping approach for tolled lanes to adjust pricing and tolled lane travel demand to reach optimal traffic operations in the tolled lanes, regardless of willingness to pay. Use of tolled lanes constitutes a higher financial burden on low-income travelers who choose to use them than on higher-income individuals.

Although Build Alternatives 3 through 5 improve vehicle and person trips compared to the future No-Build scenario, lower-income drivers may have less flexibility to use the HOT or express lane options and receive the travel time benefits of unrestricted travel than higher income drivers. Additionally, Build Alternative 5 does not offer reduced or no payment options for riders in managed lanes who take advantage of carpooling or high vehicle occupancy. Build Alternative 5 offers no reduction in toll for ridesharing, carpooling or other high vehicle occupancy, and would therefore have modal-based impacts for lower income individuals who cannot afford to pay a toll, but would otherwise utilize the managed lanes for ridesharing and carpooling.

Environmental justice communities may not realize the full benefit from alternatives that include tolling (Build Alternatives 3 through 5) since low-income travelers may choose not to use the tolled lanes due to cost. This financial burden is predominantly borne by environmental justice (low-income) communities, resulting in a disproportionate effect. With the inclusion of AMMs, described below in Section 4.4.3, the project's effects on low-income drivers would be reduced or substantially offset. Caltrans' future-appointed tolling authority would be required to implement a tolling program in alignment with Caltrans Deputy Directive 43-R1; refer to the description of Build Alternative 3 in Section 1.5.3 for more information on this policy.

Build Alternatives 2, 6, and 7

Build Alternatives 2 (HOV2+), 6 (transit-only), and 7 (repurpose HOV) would not impose tolls on travelers, so the benefits of these alternatives would be equally shared by travelers of all income levels.

No-Build Alternative

Alternative 1 (No-Build) would not change existing conditions; therefore, it would not adversely affect environmental justice communities through property acquisition, community disturbance, or tolls. The No-Build Alternative also would not provide the travel benefits of the Build Alternatives.

4.4.3 Avoidance, Minimization, and/or Mitigation Measures

If Build Alternative 3 through 5 is selected as the preferred alternative, the California Transportation Commission would authorize a tolling authority to operate the toll lanes. In part, the tolling authority's role would be to realize travel benefits from lane pricing to all travelers on I-80/US 50, including environmental justice communities who may not realize the cost-benefit of time savings associated with a tolled lane due to higher financial burden and inability to pay tolls. The future tolling authority, at the direction of Caltrans, will include a tolling program that offers, but is not limited to, the following strategies to offset the effects of toll lane alternatives on environmental justice travelers:

- Establish variable pricing for express lanes or provide discounted per-mile tolls, credits, rebates and/or exemptions based on income levels and cost of living.
- Offset the financial burden of enrolling in electronic tolling program. The toll authority would improve methods for environmental justice community and other users to obtain toll tags/transponders. For example, ensure that drivers without a credit card or bank account can receive toll tags, waive or redefine the monthly minimum balance requirements for low-income users, and provide translation services to community travelers with Limited English Proficiency (LEP).
- Use no less than 50 percent of excess toll revenue to improve multi-modal transit, expand transportation choice, and other transportation improvements that would distribute benefits to environmental justice communities identified in this report.

Based on the above discussion and incorporation of AMMs, the Build Alternatives would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898.

4.5 Equity

Equity in transportation seeks fairness in mobility and accessibility to meet the needs of all community members. A central goal of transportation equity is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved. It is important to note that transportation equity does not mean equal. An equitable transportation plan considers the circumstances impacting a community's mobility and connectivity needs, and this information is used to determine the measures needed to develop an equitable transportation network (U.S. Department of Transportation 2022a and 2022b).

Equity is related to environmental justice, discussed in the previous section, but is more broadly defined. Recent laws and policies have been adopted regarding equity and the consideration of how past policies and plans have resulted in disparities for underserved and disadvantaged populations.

Executive Order 13985. Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* (2021), affirms that “the Federal Government should pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our Government.” Under EO 13985, the term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. The Executive Order seeks to advance equity through various efforts, including coordinating across the federal government, identifying methods to assess equity, conducting an equity assessment in federal agencies, allocating federal resources to advance fairness and opportunity, promoting equitable delivery of government benefits and equitable opportunities, engaging with members of underserved communities, and establishing an Equitable Data Working Group.

USDOT Equity and Access Policy. The U.S. Department of Transportation’s March 2021 Equity and Access Policy Statement (USDOT 2021) states that “the Department is committed to promoting equitable delivery of government benefits and opportunities, including advancing meaningful engagement with all communities and ensuring that government contracting and procurement opportunities are available on an equal basis to all eligible providers of goods and services.” The policy statement reiterates USDOT’s commitment to incorporate environmental justice and equity principles into transportation planning and decision-making processes, including ensuring full and equitable access to programs, activities, and services for persons with limited English proficiency in accordance with Executive Order 13166 *Improving Access to Services for Persons with Limited English Proficiency*.

Caltrans Equity Statement. The Caltrans Equity Statement (December 10, 2020) acknowledges that communities of color and underserved communities experienced fewer benefits and a greater share of negative impacts associated with our state’s transportation system. Some of these disparities reflect a history of transportation decision-making, policy, processes, planning, design, and construction that “quite literally put up barriers, divided communities, and amplified racial inequities, particularly in our Black and Brown neighborhoods.”

Local Agency Equity Policies and Programs. Local governments are also addressing equity in their policies and programs. Yolo County established their Inclusion and Diversity Work Group in 2019 with a goal of creating and sustaining an equitable work environment and prioritizing services to underserved communities (Yolo County 2022). The City of West Sacramento recently created a sidewalks and transportation equity program, which will review

and prioritize projects with a “lens of equity” by focusing on benefits for disadvantaged communities, seniors and safe routes to schools and parks (City of West Sacramento 2022). The City of Sacramento’s established their Office of Diversity and Equity in July 2018 with the mission of creating “a more equitable and inclusive City of Sacramento by facilitating the integration of greater representation, fairness, belonging and care into our policies, protocols, practices and work-places.” (City of Sacramento 2022). In February 2021, Sacramento County approved a Resolution on Racial Equity and Social Justice, declaring racism a public health crisis (Sacramento County 2021). Solano County’s Equity and Diversity Committee is working to improve health services for underserved populations (Solano County 2022).

4.5.1 Affected Environment

When identifying underserved and disadvantaged communities in the study area, this analysis considers historic impacts from transportation infrastructure development, existing environmental conditions and pollution burdens, health disparities that make communities more sensitive to pollution, and other socioeconomic factors that correlate with sensitivity to environmental impacts and traditionally underserved communities. Many socioeconomic characteristics of the Community Study Area are described in sections 4.1 Population and Housing, 4.2, Economic Conditions, and 4.4 Environmental Justice; please refer to those earlier sections and tables.

4.5.1.1 Historical Context

The I-80 alignment from Solano County to the Sacramento River generally followed the Lincoln Highway (US-40) route. Portions of this route were completed at different times between the 1910s and 1960s. The Yolo Causeway stretch of I-80 linking Davis and West Sacramento was first built in 1916 and updated in 1962 (Photo 1).

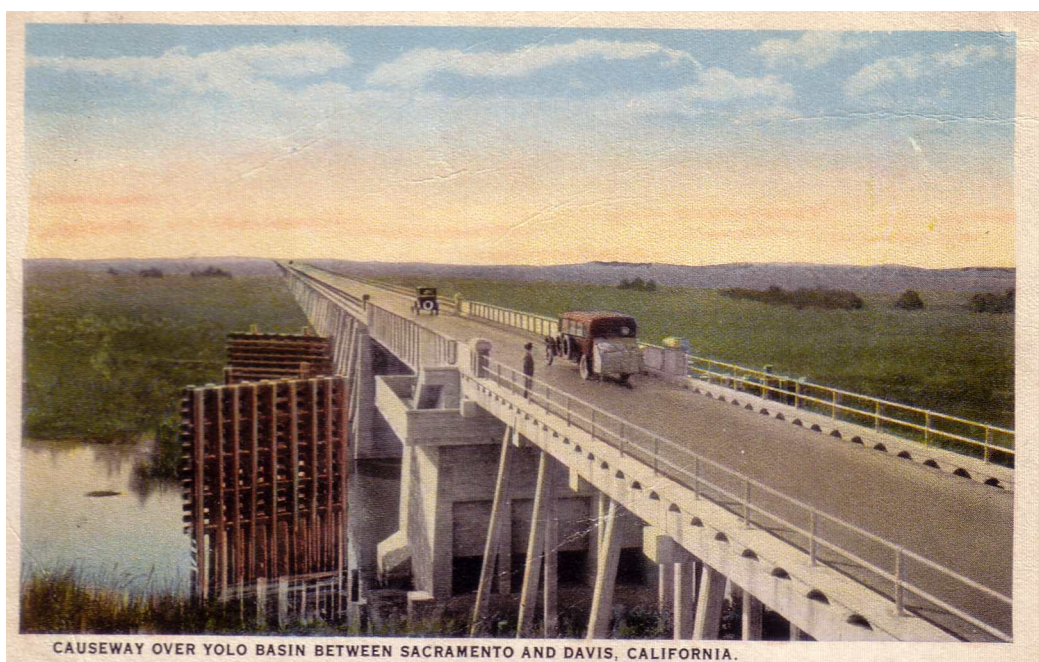


Photo 1. Yolo Causeway circa 1920 (source: UC Davis Library; Postcard published by Frank McCougal, Sacramento, Calif., circa 1920)

The highway was widened and realigned in the late 1960s and early 1970s. I-80 in most of Yolo County was built along the existing US-40 corridor or through agricultural lands and undeveloped land east of Pedrick Road and south of the City of Davis. Construction of the interstate did not divide or disrupt the existing Davis residential and business community as it was routed south of town. East of the causeway, the construction of I-80 in the early 1970s changed the growing West Sacramento communities of Bryte and Broderick. Completed in 1966, the twin-span Pioneer Memorial Bridge over the Sacramento River created a new connection between West Sacramento and Sacramento (Photo 2). The section of I-80 through West Sacramento to the Pioneer Bridge was constructed south of the US-40 route (West Capitol Avenue). Although the new interstate did not disrupt the existing commercial corridor, it diverted traffic from the commercial core along West Capitol Avenue, cut off the Westacre School neighborhood from Old West Sacramento residential areas to the south between Jefferson Boulevard and the Sacramento Northern Railroad, and separated the Port of Sacramento from areas north of the highway.

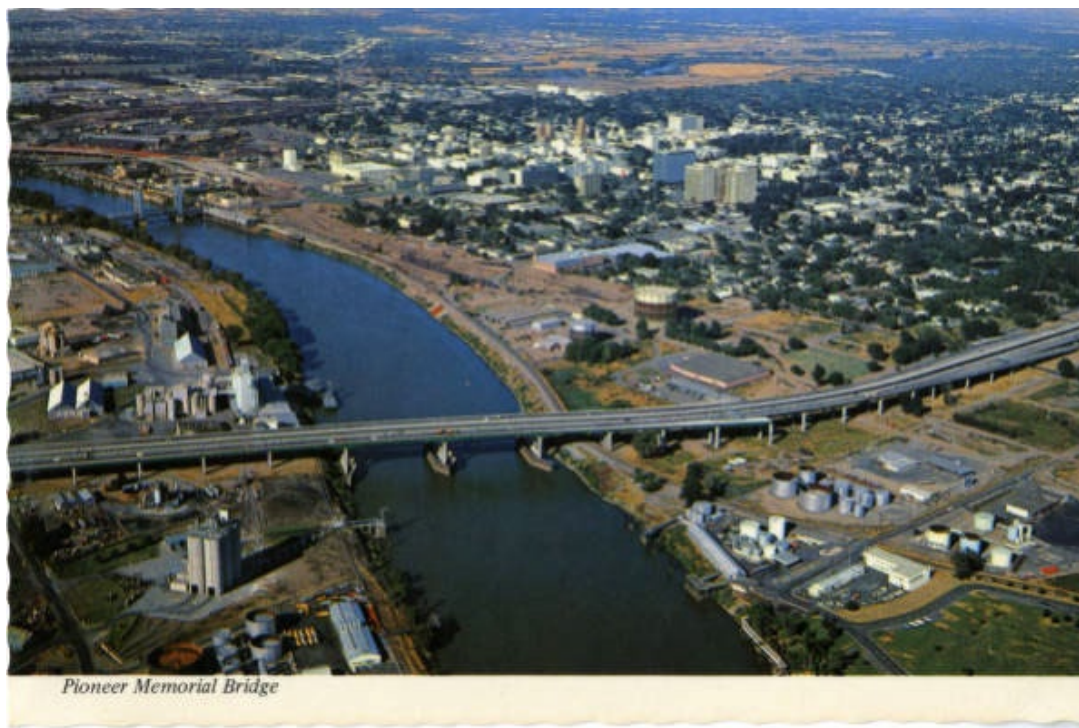


Photo 2. Pioneer Memorial Bridge, circa 1970 (source: Sacramento Public Library, Sacramento Room Digital Collection)

After completion of the I-80/US-50 segment from the causeway to Pioneer Memorial Bridge, the highway connection from I-80 to I-5 over the Sacramento River was completed. The Sacramento Bypass, which was named “I-880” before being renamed “I-80” in 1980, was routed west of Harbor Boulevard and the residential communities of Bryte and Broderick, so did not divide an existing community at the time it was completed in the early 1970s. The construction

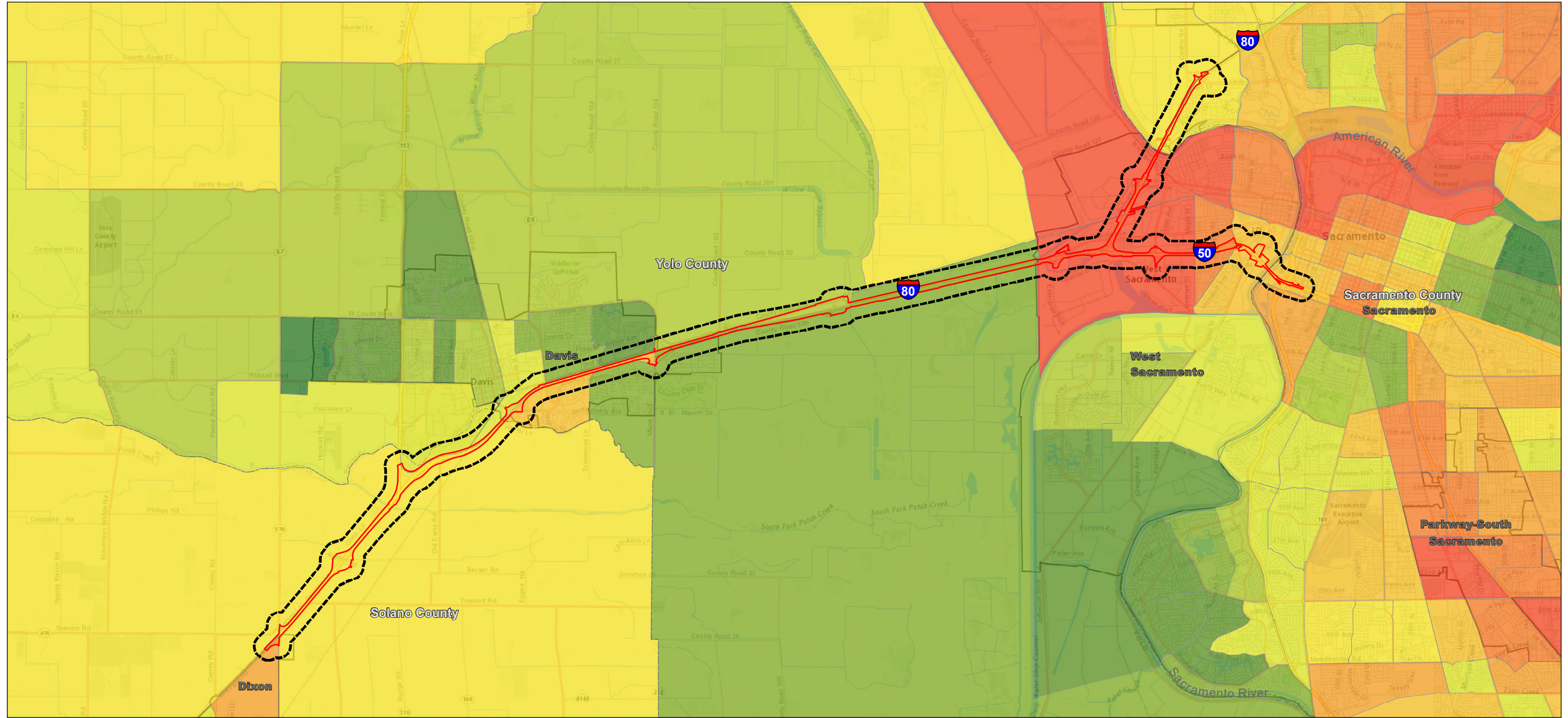
of I-80 led to new major roadways in the greater West Sacramento area and changed the pattern of development in the growing community of West Sacramento (City of West Sacramento 2022).

4.5.1.2 Disadvantaged Communities – CalEnviroScreen Model

To help identify communities that are disproportionately burdened by multiple sources of pollution and with population characteristics that make them more sensitive to pollution, the California Office of Environmental Health Hazards Assessment developed the CalEnviroScreen mapping tool (OEHHA 2021). CalEnviroScreen identifies communities facing socioeconomic disadvantages or health disadvantages. It uses environmental, health, and socioeconomic data from state and federal government sources to score every census tract in California. The scores are generated using statewide indicators in four categories: pollution exposures, environmental effects, sensitive populations, and socioeconomic factors. CalEnviroScreen ranks census tracts (low to high sensitivity) based on their combined pollution burden and population characteristics; a percentile is then calculated from the ordered values. The California Environmental Protection Agency has defined disadvantaged communities as those census tracts that fall in or above the 75th percentile in CalEnviroScreen, meaning the combined score is higher than 75 percent of the census tracts in California. There are approximately 8,000 census tracts in California. This information is used to prioritize projects under Senate Bill 535 and AB 1550. Figure 4-3 and Table 4-20 provide CalEnviroScreen (4.0) scores for the Community Impact Area.

As shown in the figure, census tracts with the highest CalEnviroScreen score along the I-80/US-50 corridor are concentrated in the City of West Sacramento, where the pollution burden percentiles and population characteristic percentiles combine for an overall score in the 75th percentile when compared to census tracts in the state. This ranking indicates that these tracts are confronted with many burdens and vulnerabilities from environmental pollutants and are defined as disadvantaged communities. Within segment 3 (I-80/US-50 to Jefferson Boulevard and Jefferson Boulevard to I-5), CalEnviroScreen scores fall within the 66th to 96th percentile, indicating that these communities have a high pollution burden and/or high sensitivity.

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Legend

- Project Limits
- Land Use Study Area
- County Boundary

CalEnviroScreen 4.0 Results (Percentile)	
0 - 10% (Lowest Score)	
10 - 20%	
20 - 30%	
30% - 40%	

40% - 50%
50 - 60%
60 - 70%
70 - 80%
80 - 90%
90 - 100% (Highest Score)

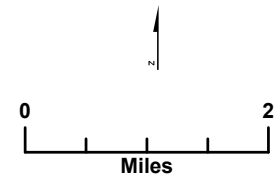


Figure 4-3
Disadvantaged Communities
CalEnviroScreen 4.0 Results
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: California Office of Environmental Health Hazard Assessment 2021, CalTrans, Stantec, Area West, 2021-2022
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
Date: 8/26/2022

Table 4-20. CalEnviroScreen Results by Census Tract

Census Tract	Pollution Burden Percentile	Population Characteristics Percentile	Combined Ranked Percentile	Disadvantaged Community? ^[1]
Segment 1a Kidwell Road to Solano/Yolo County Line				
2533	92	29	55	No
2534.02	74	61	70	No
105.01	59	40	49	No
Segment 1b Solano/Yolo County Line to Yolo Causeway				
106.02	68	27	41	No
106.06	35	17	21	No
106.08	53	62	62	No
107.01	46	36	40	No
106.05	41	8	13	No
105.05	77	18	35	No
106.07	57	14	24	No
104.01	64	12	24	No
Segment 1c Yolo Causeway to Enterprise Boulevard				
112.06	68	43	55	No
Segment 2 Enterprise Boulevard to West El Camino Avenue				
101.02	89	88	93	Yes
70.20	47	49	51	No
70.17	49	47	50	No
Segment 3a I-80/US-50 to Jefferson Boulevard				
102.03	97	80	96	Yes
102.04	76	78	82	Yes
Segment 3b Jefferson Boulevard to I-5				
102.01	88	45	66	No
22	91	59	79	Yes
21	91	47	69	No

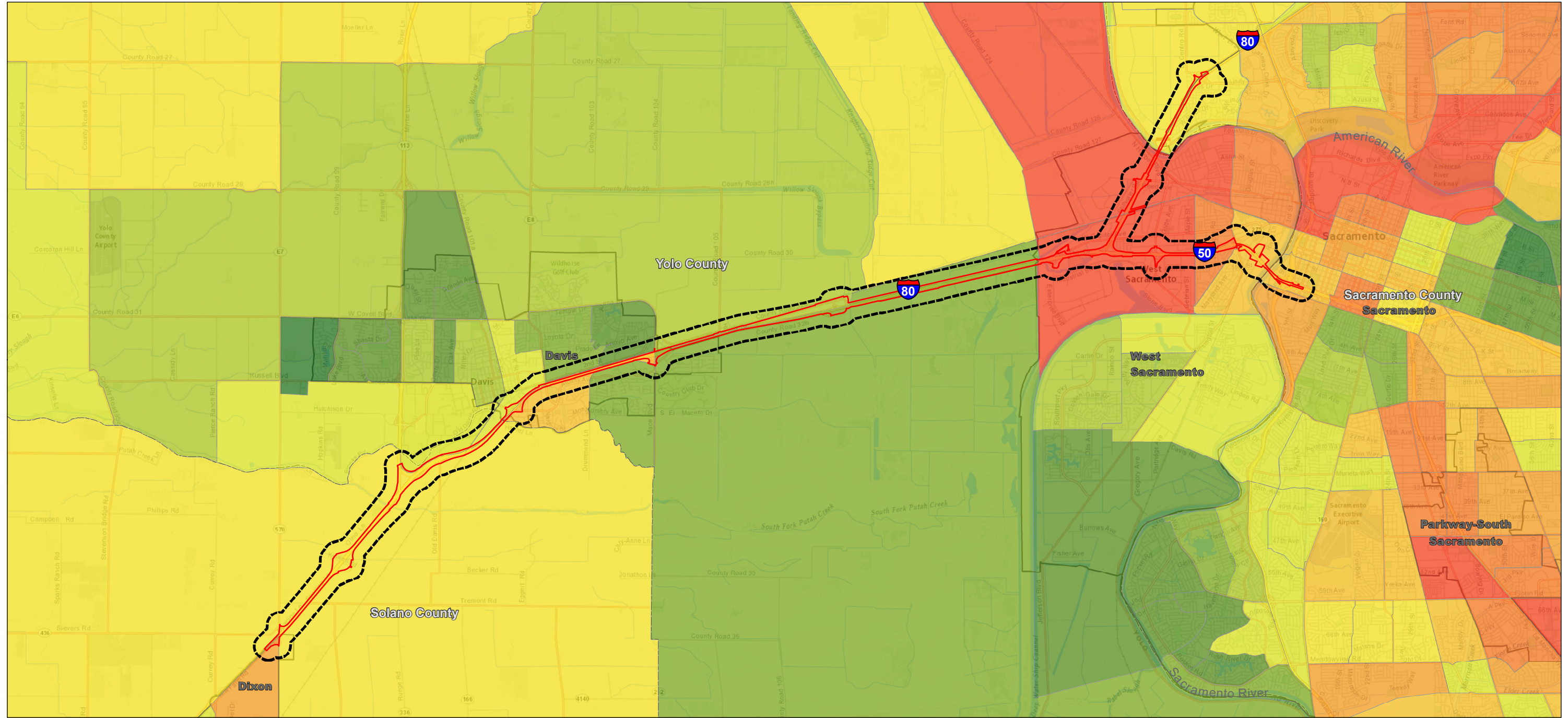
Notes:

1 As defined by the California Environmental Protection Agency, a Disadvantaged Community has an overall CalEnviroScreen score in the 75th percentile or greater.

4.5.1.3 Pollution Burden

CalEnviroScreen reports pollution burden as a summary of environmental conditions (exposures) and effects of that exposure on communities. This analysis characterizes the cumulative impact to communities from existing pollution, and how the overall pollution burden affects health and quality of life (OEHHA 2021). Exposures involve the movement of chemicals

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Legend

- Project Limits
- Land Use Study Area
- County Boundary

CalEnviroScreen 4.0 Results (Percentile)	
0 - 10% (Lowest Score)	
10 - 20%	
20 - 30%	
30% - 40%	

40% - 50%
50 - 60%
60 - 70%
70 - 80%
80 - 90%
90 - 100% (Highest Score)

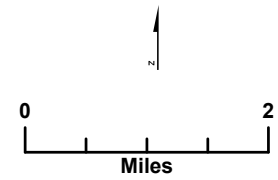


Figure 4-3
Disadvantaged Communities
CalEnviroScreen 4.0 Results
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: California Office of Environmental Health Hazard Assessment 2021, CalTrans, Stantec, Area West, 2021-2022
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
Date: 8/26/2022

through the environment (air, water, food, soil) to an individual or population, and environmental effects are the adverse environmental conditions caused by pollution. CalEnviroScreen identifies the following indicators of human exposure to pollutants and environmental degradation caused by pollutants:

- Ozone concentrations in air
- PM_{2.5} concentrations in air
- Diesel particulate matter emissions
- Drinking water contaminants
- Children's lead risk from housing
- Use of certain high-hazard, high-volatility pesticides
- Toxic releases from facilities
- Traffic impacts
- Toxic cleanup sites
- Groundwater threats from leaking underground storage sites and cleanups
- Hazardous waste facilities and generators
- Impaired water bodies
- Solid waste sites and facilities

CalEnviroScreen groups data from these indicators to represent a cumulative Pollution Burden score for each census tract. The census tracts in California are ordered from highest to lowest, based on their overall score, and a percentile for the overall score is then calculated from the ordered values. Table 4-21 presents the Pollution Burden score and percentiles for the census tracts in the Community Study Area. Census tracts that fall within the 75th percentile experience a higher level of pollution burden than 75 percent of California's census tracts. Four of the 20 census tracts in the Community Study Area, three in the City of West Sacramento and one in the City of Sacramento, exceed the 75th percentile.

Table 4-21. Pollution Burden by Census Tract

County	Census Tract	CalEnviroScreen Pollution Burden Score	Pollution Burden Ranked Percentile compared to Statewide ^[1]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	92	55
Solano	2534.02	74	70
Yolo	105.01	59	49
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	68	41
Yolo	106.06	35	21
Yolo	106.08	53	62
Yolo	107.01	46	40
Yolo	106.05	41	13

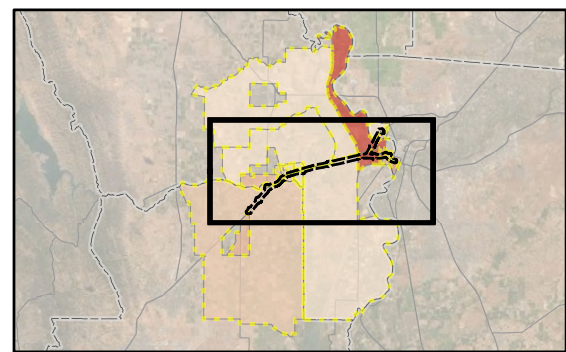
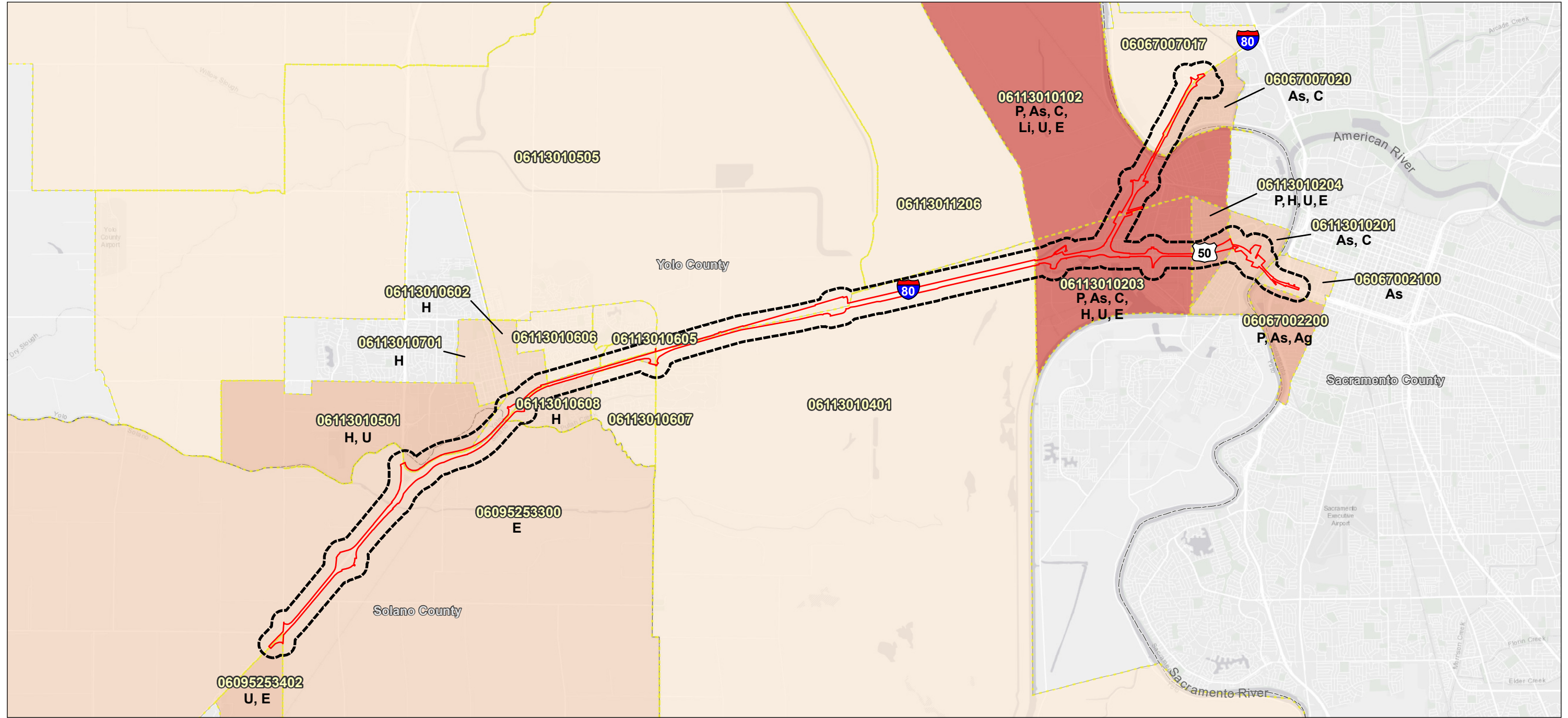
County	Census Tract	CalEnviroScreen Pollution Burden Score	Pollution Burden Ranked Percentile compared to Statewide ^[1]
Yolo	105.05	77	35
Yolo	106.07	57	24
Yolo	104.01	64	24
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	68	55
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	88	66
Sacramento	70.20	47	51
Sacramento	70.17	49	50
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	97	96
Yolo	102.04	76	82
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	89	93
Sacramento	22.00	91	79
Sacramento	21.00	91	69

4. Ranked percentile compared to all census tracts in California.

Source: <https://oehha.ca.gov/calenviroscreen/maps-data>

Figure 4-4 presents results of pollution burden, health disparities, and socioeconomic factor analyses to define underserved and disadvantaged communities in the Community Study Area.

D:\AWE\20-018-003_Yolo_CIA\YOL_80\IMXD\Yolo 80 Figure 4-4 Underserved Community Vulnerabilities 20220826.mxd Revised: 2022-08-26 By: GIS 9-16



Legend

- Project Limits
- Land Use Study Area
- County Boundary
- Census Tracts

Vulnerability Index (number of risk factors)

- | | |
|--|--|
| 0 | 3 |
| 1 | 4 |
| 2 | 5 |
| | 6 |
| | 7 |

Key to Risk Factor Labels:

C = Cardiovascular Disease
As = Asthma
Lo = Low Birth Weight
Ag = Age
P = Pollution Burdened
H = Housing Burdened
Li = Linguistically Isolated
U = Unemployment
E = Educational Attainment

Example:

06067002200
P, As, Ag
= Census Tract 22
Pollution Burdened,
Asthma, Age

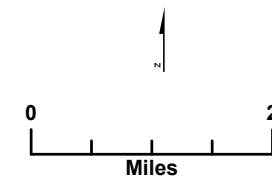


Figure 4-4
Underserved and Disadvantaged
Community Vulnerabilities
Yolo 80 Corridor Improvement Project
EA 03-3H900
Solano, Yolo, and Sacramento Counties, California

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Data Sources: California Office of Environmental Health Hazard Assessment 2021, CalTrans, Stantec, Area West, 2021-2022
3. Background: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

4.5.1.4 Health Disparities and Sensitive Populations

Health factors and age contribute to the sensitivity of a population to pollution exposure. Physiological conditions such as asthma and cardiovascular disease result in increased vulnerability to pollutants. Other sensitive individuals include those with compromised immunity or lower protective mechanisms due to genetic factors (OEHHA 2021).

Asthma

Asthma is a disease that affects the lungs and makes it hard to breathe. Symptoms include breathlessness, wheezing, coughing, and chest tightness. Five million Californians have been diagnosed with asthma at some point in their lives and more than three million Californians currently have asthma (OEHHA, 2010). Children, the elderly and low-income Californians suffer disproportionately from asthma (UCLA, 2009). People with asthma can be especially susceptible to pneumonia, flu and other illnesses. Outdoor air pollution can trigger asthma attacks. Asthma rates are a good indicator of population sensitivity to environmental stressors because asthma has been found to both be caused by and worsened by pollutants. Air pollutants, including particulate matter, ozone, nitrogen dioxide, and diesel exhaust, can trigger symptoms among asthmatics (Meng et al., 2011). Children living in areas with higher traffic-related pollution in California have been shown to suffer significantly increased rates of asthma (McConnell et al., 2010). Although asthma can be managed as a chronic disease, asthma can be a life-threatening condition, and emergency department visits for asthma are a very serious outcome, both for patients and for the medical system.

Table 4-22 presents the rate of asthma emergency department visits per 10,000 residents per year (averaged from a three-year period) for the census tracts in the Community Study Area. The table also compares each census tract score against statewide scores; this percentile is based on the ranked order for all census tracts in the state, meaning that a census tract with a ranked percentile greater than 75 has a higher rate of asthma than 75 percent of the census tracts in California. As shown in Table 4-22, 6 of the 20 census tracts in the Community Study Area have a rate of asthma that is at or exceeds the 75th percentile compared to statewide scores (Figure 4-4). The California Asthma Dashboard (California Department of Public Health 2022) reports that Yolo County has a lifetime asthma prevalence (proportion of people who have ever been diagnosed with asthma by a healthcare provider) of 24.7 percent compared to 15.1 percent statewide. This is likely a function of high pollen levels and poor air quality in the Sacramento Valley region.

Table 4-22. Asthma Rates by Census Tract

County	Census Tract	Average Annual Rate of Emergency Department Visits for Asthma per 10,000 Residents	Ranked Percentile Compared to Statewide Scores ^[1]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	61	57
Solano	2534.02	60	69
Yolo	105.01	25	17
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	19	8
Yolo	106.06	22	12
Yolo	106.08	27	21
Yolo	107.01	25	17
Yolo	106.05	27	21
Yolo	105.05	26	17
Yolo	106.07	27	21
Yolo	104.01	32	29
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	53	60
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	68	77
Sacramento	70.20	88	89
Sacramento	70.17	65	74
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	67	76
Yolo	102.04	61	70
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	77	83
Sacramento	22.00	74	81
Sacramento	21.00	85	88

4. Ranked percentile compared to all census tracts in California.

Source: <https://oehha.ca.gov/calenviroscreen/maps-data>

Cardiovascular Disease

Cardiovascular disease refers to conditions that involve blocked or narrowed blood vessels of the heart. Cardiovascular disease is the leading cause of death both in California and the United

States (OEHHA 2021). A heart attack is the most common result of cardiovascular disease. Many people survive and return to normal life after a heart attack, but quality of life and long-term survival may be reduced, and these people are highly vulnerable to future cardiovascular events. There are many risk factors for developing cardiovascular disease including diet, lack of exercise, smoking and exposure to air pollution. In scientific statements made by the American Heart Association, there is strong evidence that air pollution contributes to cardiovascular morbidity and mortality (Brook et al., 2010; Pope III et al., 2006). Exposure to outdoor air pollution following a heart attack has been shown to increase the risk of death (OEHHA 2021). Short term exposure to air pollution, and specifically particulate matter, has been shown to increase the risk of cardiovascular mortality shortly following a heart attack. There is also growing evidence that long term exposure to air pollution may result in premature death for people that have had a heart attack. In addition to people with a past heart attack, the effects of air pollution may also be greater in the elderly and people with other preexisting health conditions.

Table 4-23 presents the rate of emergency department visits for acute myocardial infarction (or heart attack) per 10,000 residents per year (averaged from 2015-2017 data) for the census tracts in the Community Study Area. The table also compares each census tract score against statewide scores; this percentile is based on the ranked order for all census tracts in the state, meaning that a census tract with a ranked percentile of 75 has a higher rate of asthma than 75 percent of the census tracts in California. As shown in the table, 4 of the 20 census tracts in the Community Study Area have a rate of cardiovascular disease that is at or above the 75th percentile compared to statewide scores (Figure 4-4).

Table 4-23. Cardiovascular Disease by Census Tract

County	Census Tract	Average Annual Rate of Emergency Departments Visits for Acute Myocardial Infarction per 10,000 residents	Ranked Percentile Compared to Statewide Scores ^[1]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	11.75	44
Solano	2534.02	14.54	64
Yolo	105.01	9.91	29
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	7.50	10
Yolo	106.06	8.38	16
Yolo	106.08	10.24	32
Yolo	107.01	9.91	29
Yolo	106.05	10.24	32
Yolo	105.05	9.19	23
Yolo	106.07	10.24	32

County	Census Tract	Average Annual Rate of Emergency Departments Visits for Acute Myocardial Infarction per 10,000 residents	Ranked Percentile Compared to Statewide Scores ^[1]
Yolo	104.01	12.08	47
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	15.67	70
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	17.23	77
Sacramento	70.20	19.65	86
Sacramento	70.17	15.21	68
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	17.10	77
Yolo	102.04	15.46	69
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	19.84	87
Sacramento	22.00	13.26	56
Sacramento	21.00	13.06	54

4. Ranked percentile compared to all census tracts in California.

Source: <https://oehha.ca.gov/calenviroscreen/maps-data>

Low Birth Weight

Low birth weight is an indicator of increased risk of health problems later in life as well as infant mortality. Poor nutrition, lack of prenatal care, stress and smoking by the mother are known to increase the risk of having a low-birth-weight baby. Studies suggest that pollution could also be a factor; environmental exposures to lead, air pollution, toxic air contaminants, traffic pollution, pesticides, and polychlorinated biphenyls are all linked to low birth weight (OEHHA 2021). Low birth-weight babies may face a greater risk of developing asthma or other chronic diseases later in life. They are also more likely to die as infants than babies who are not born low weight. Infants born weighing less than 2,500 grams (about 5.5 pounds) are classified as low birth weight. Since these children are at higher risk of chronic health conditions that may make them more sensitive to environmental exposures after birth, low birth weight is a vulnerability when evaluating impacts of pollution burdens on sensitive populations.

Table 4-24 presents data from the California Department of Public Health on the percent of live, singleton births during the 2009-2015 period weighing less than 2,500 grams. The table also compares each census tract score against statewide scores; this percentile is based on the ranked order for all census tracts in the state, meaning that a census tract with a ranked percentile of 75 has a higher rate of low-birth-weight infants than 75 percent of the census tracts in California. As shown in the table, none of the census tracts in the Community Study Area

have a rate of low-birth-weight infants that is at or above the 75th percentile compared to statewide scores.

Table 4-24. Low Birth Weight by Census Tract

County	Census Tract	Percent of Births with Low Birth Weight Infants ^[1]	Ranked Percentile Compared to Statewide Results ^[2]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	1.50%	1
Solano	2534.02	3.42%	15
Yolo	105.01	1.27%	0
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	2.48%	4
Yolo	106.06	3.76%	21
Yolo	106.08	5.93%	74
Yolo	107.01	4.32%	34
Yolo	106.05	2.15%	3
Yolo	105.05	3.02%	10
Yolo	106.07	4.04%	28
Yolo	104.01	2.07%	2
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	4.41%	36
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	2.16%	3
Sacramento	70.20	4.98%	52
Sacramento	70.17	5.59%	67
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	3.56%	17
Yolo	102.04	4.32%	34
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	5.61%	67
Sacramento	22.00	5.35%	61
Sacramento	21.00	2.61%	5

Notes:

1. Live, singleton births during the 2009-2015 period weighing less than 2,500 grams.

2. Ranked percentile compared to all census tracts in California.

Source: <https://oehha.ca.gov/calenviroscreen/maps-data>

Age

Age influences the sensitivity of a population to pollution exposures. Elderly and young population groups are considered more susceptible to the negative environmental effects of pollution exposures. As described in section 4.1, Population and Housing, the Community Study Area as a whole does not have a disproportionate percentage of population that is young or elderly when compared to the Regional Study Area (Table 4-4); The Community Study Area median age of 34.6 is slightly lower than the Regional Study Area median age of 37.3, which is likely attributable to the student population associated with UC Davis. Table 4-25 presents U.S. Census Bureau age data by census tract in the Community Study Area. As shown in the table, only 1 of the 20 census tracts in the Community Study Area, census tract 22.00 in the City of Sacramento, has a population with a significantly higher percentage of children (represented as a greater than 10 percent, or approximately 1 standard deviation, higher) than the Regional Study Area average.

Table 4-25. Age by Census Tract

County	Census Tract	Children: Percent of Population under 18	Elderly: Percent of Population 65 years or older
Sacramento, El Dorado, Placer, Sutter, Yolo and Yuba	Regional Study Area	22.9%	15.7%
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	20.20%	16.39%
Solano	2534.02	26.41%	16.29%
Yolo	105.01	3.61%	0.26%
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	6.99%	8.09%
Yolo	106.06	18.93%	12.52%
Yolo	106.08	15.57%	4.17%
Yolo	107.01	9.75%	9.03%
Yolo	106.05	24.46%	10.40%
Yolo	105.05	28.33%	11.02%
Yolo	106.07	23.85%	16.63%
Yolo	104.01	24.71%	18.44%
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	28.74%	8.91%
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	16.29%	12.48%
Sacramento	70.20	22.19%	10.36%
Sacramento	70.17	28.38%	9.61%

County	Census Tract	Children: Percent of Population under 18	Elderly: Percent of Population 65 years or older
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	29.69%	10.21%
Yolo	102.04	22.14%	19.48%
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	26.29%	10.79%
Sacramento	22.00	38.13%	7.45%
Sacramento	21.00	11.78%	7.97%

Source: U.S. Census Bureau American Community Survey 2019, Table B01001

Note: 1. Age for the Regional Study Area is based on the total population within the SACOG Area, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties

4.5.1.5 Socioeconomic Factors

Underserved and disadvantaged communities include those populations that are affected by persistent poverty or who have been systematically denied full opportunity to participate in aspects of economic, social, and civic life due to a shared characteristic. Low-income and minority populations are discussed in section 4.4 Environmental Justice. Other socioeconomic factors can be used to identify traditionally underserved populations and communities that have a heightened vulnerability to environmental pollutants. This section provides data on the following socioeconomic factors for the Community Study Area:

- Linguistic Isolation
- Housing-burdened low-income households
- Unemployment
- Educational Attainment

Linguistic Isolation

According to the U.S. Census Bureau's 2015-2019 American Community Survey, the linguistic isolation indicator measures the percentage of households in the census tract where no one over 14 speaks English well. Linguistic isolation is a term used by the U.S. Census Bureau for Limited English Proficiency (LEP) individuals. More than 40 percent of Californians speak a language other than English at home. About half of those do not speak English well or at all. Adults who are not able to speak English well often have trouble talking to the people who provide social services and medical care. Linguistically isolated households may also not hear or understand important information when there is an emergency like an accidental chemical release or spill (U.S. Census Bureau 2019). This analysis uses the term "linguistic isolation" to measure households where all members 14 years of age or above have at least some difficulties speaking English. A high degree of linguistic isolation among members of a community raises concerns about access to health information and public services, and effective engagement with regulatory and civic processes. Adults who are not able to speak English well often have trouble talking to the people who provide social services and medical

care. Linguistically isolated households may also not hear or understand important information when there is an emergency. Sources for information on linguistic isolation include the 2019 American Community Survey, SACOG, and Sacramento County.

Table 4-26 presents rates of linguistic isolation by census tract in the Community Study Area, defined as the percent of households where no one over the age of 14 speaks English. The table also compares each census tract score against statewide scores; this percentile is based on the ranked order for all census tracts in the state, meaning that a census tract with a ranked percentile of >75 has a higher rate of linguistic isolation than 75 percent of the census tracts in California. As shown in the table, only 1 of the 20 census tracts in the Community Study Area, census tract 101.02 in West Sacramento, exceeds the 75th percentile compared to statewide scores for linguistic isolation.

Table 4-26. Linguistic Isolation by Census Tract

County	Census Tract	Percent of Linguistically Isolated Households ^[1]	Ranked Percentile Compared to Statewide Rates ^[2]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	10%	62
Solano	2534.02	7%	49
Yolo	105.01	13%	71
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	8%	53
Yolo	106.06	2%	16
Yolo	106.08	8%	52
Yolo	107.01	3%	25
Yolo	106.05	3%	24
Yolo	105.05	5%	40
Yolo	106.07	8%	51
Yolo	104.01	3%	47
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	7%	47
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	3%	24
Sacramento	70.20	1%	10
Sacramento	70.17	3%	26
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	11%	64
Yolo	102.04	13%	73

County	Census Tract	Percent of Linguistically Isolated Households ^[1]	Ranked Percentile Compared to Statewide Rates ^[2]
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	17%	81
Sacramento	22.00	4%	31
Sacramento	21.00	6%	44

Notes:

1. Percent of households where no one over the age of 14 speaks English well.

2. Ranked percentile compared to all census tracts in California.

Source: <https://oehha.ca.gov/calenviroscreen/maps-data>.

Housing-cost Burdened Households

Housing-burdened low-income households are households that are both low income and highly burdened by housing costs (OEHHA 2021). California has very high housing costs relative to much of the country, which can make it hard for many to afford housing. Households with lower incomes may spend a larger proportion of their income on housing and may suffer from housing-induced poverty. Housing affordability is an important determinant of health and well-being. Low-income households with high housing costs may suffer adverse health impacts.

Table 4-27 presents the percentage of households that are both low income (making less than 80 percent its county median family income) and severely burdened by housing costs (paying greater than 50 percent of their income to housing costs) (OEHHA 2021). The table also compares each census tract score against statewide scores; this percentile is based on the ranked order for all census tracts in the state, meaning that a census tract with a ranked percentile of 75 has a higher rate of housing-cost burdened households than 75 percent of the census tracts in California. As shown in the table, 6 of the 20 census tracts in the Community Study Area have a rate of housing-cost burden that is at or above the 75th percentile compared to statewide scores. This includes portions of Davis, where housing costs are high compared to regional housing prices.

Table 4-27. Housing-cost Burden by Census Tract

County	Census Tract	Percent of households that are both low income and severely burdened by housing costs ^[1]	Ranked Percentile compared to Statewide rates ^[2]
Segment 1a Kidwell Road to Solano/Yolo County Line			
Solano	2533.00	6%	3
Solano	2534.02	18%	53
Yolo	105.01	40%	99

County	Census Tract	Percent of households that are both low income and severely burdened by housing costs ^[1]	Ranked Percentile compared to Statewide rates ^[2]
Segment 1b Solano/Yolo County Line to Yolo Causeway			
Yolo	106.02	29%	89
Yolo	106.06	16%	43
Yolo	106.08	31%	92
Yolo	107.01	34%	95
Yolo	106.05	12%	23
Yolo	105.05	17%	49
Yolo	106.07	9%	10
Yolo	104.01	10%	16
Segment 1c Yolo Causeway to Enterprise Boulevard			
Yolo	112.06	10%	12
Segment 2 Enterprise Boulevard to West El Camino Avenue			
Yolo	102.01	12%	23
Sacramento	70.20	12%	25
Sacramento	70.17	15%	36
Segment 3a I-80/US-50 to Jefferson Boulevard			
Yolo	102.03	24%	76
Yolo	102.04	24%	78
Segment 3b Jefferson Boulevard to I-5			
Yolo	101.02	17%	47
Sacramento	22.00	12%	24
Sacramento	21.00	16%	43

Source: <https://oehha.ca.gov/calenviroscreen/maps-data> Notes:

1. Low-income are households making less than 80 percent of the county median family income, and severely burdened by housing costs are households paying greater than 50 percent of their income to housing costs.
2. Ranked percentile compared to all census tracts in California.

Unemployment

Because low socioeconomic status often correlates with high unemployment, the rate of unemployment is a factor commonly used in describing disadvantaged communities. On an individual level, unemployment is a source of stress, which is implicated in poor health reported by residents of such communities (OEHHA 2021). Lack of employment and resulting low income often constrain people to live in neighborhoods with higher levels of pollution and environmental degradation (OEHHA 2021).

According to the American Community Survey, in 2019 California had an unemployment rate of 6.06 percent (Table 4-11). Comparatively, the Regional Study Area had an unemployment rate (civilian labor force) of 6.14 percent and Yolo County of 6.19 percent. Table 4-28 presents the unemployment rate for persons over the age of 16 who are unemployed and eligible for the labor force. As shown in the table, 5 of the 20 census tracts in the Community Study Area have unemployment rates that are significantly higher (represented as greater than 2 percent, or approximately 1 standard deviation, higher) than the Regional Study Area average.

Table 4-28. Unemployment Rate (2019)

County	Census Tract	Unemployment Rate (Civilian Labor Force) ^[1]
Segment 1a Kidwell Road to Solano/Yolo County Line		
Solano	2533.00	3.46%
Solano	2534.02	8.83%
Yolo	105.01	10.48%
Segment 1b Solano/Yolo County Line to Yolo Causeway		
Yolo	106.02	6.09%
Yolo	106.06	6.09%
Yolo	106.08	6.07%
Yolo	107.01	6.47%
Yolo	106.05	4.41%
Yolo	105.05	5.77%
Yolo	106.07	4.19%
Yolo	104.01	3.33%
Segment 1c Yolo Causeway to Enterprise Boulevard		
Yolo	112.06	4.04%
Segment 2 Enterprise Boulevard to West El Camino Avenue		
Yolo	102.01	6.06%
Sacramento	70.20	4.14%
Sacramento	70.17	3.59%
Segment 3a I-80/US-50 to Jefferson Boulevard		
Yolo	102.03	13.32%
Yolo	102.04	11.13%

County	Census Tract	Unemployment Rate (Civilian Labor Force) ^[1]
Segment 3b Jefferson Boulevard to I-5		
Yolo	101.02	8.71%
Sacramento	22.00	7.62%
Sacramento	21.00	5.89%

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, TableDP03

Note: 1. Civilian labor force is percentage of population over the age of 16 that is unemployed and eligible for the labor force. This excludes retirees, students, homemakers, institutionalized persons except prisoners, those not looking for work, and military personnel on active duty.

Educational Attainment

Educational attainment is an important independent predictor of health. Individuals with lower education in the US have a lower life expectancy, and several studies have associated educational attainment with susceptibility to the health impacts of environmental pollutants (OEHHA 2021). Educational attainment is an important element of socioeconomic status and a social determinant of health. Numerous studies suggest a higher level of education is associated with lower exposures to environmental pollutants that damage health (OEHHA 2021).

Table 4-29 presents educational attainment as a percentage of population more than 25 years old with less than a high school education. Within California, the percentage of population more than 25 years old with less than a high school education is 14.0 percent, and within the Regional Study Area, it is 11.31 percent. To distinguish census tracts at risk due to educational attainment, the census tracts in the Community Study Area are compared to the Regional Study Area average. As shown in the table, 5 of the 20 census tracts in the Community Study Area have educational attainment deficit rates that are significantly higher (represented as greater than 10 percent, or approximately 1 standard deviation, higher) than the Regional Study Area average (Figure 4-4).

Table 4-29. Educational Attainment by Census Tract

County	Census Tract	Percent of Population >25 years with less than a high school education
Segment 1a Kidwell Road to Solano/Yolo County Line		
Solano	2533.00	27.59%
Solano	2534.02	29.26%
Yolo	105.01	0.00%
Segment 1b Solano/Yolo County Line to Yolo Causeway		
Yolo	106.02	4.90%
Yolo	106.06	4.56%
Yolo	106.08	6.29%

County	Census Tract	Percent of Population >25 years with less than a high school education
Yolo	107.01	1.50%
Yolo	106.05	1.35%
Yolo	105.05	5.39%
Yolo	106.07	1.41%
Yolo	104.01	5.29%
Segment 1c Yolo Causeway to Enterprise Boulevard		
Yolo	112.06	14.83%
Segment 2 Enterprise Boulevard to West El Camino Avenue		
Yolo	102.01	14.01%
Sacramento	70.20	5.07%
Sacramento	70.17	4.22%
Segment 3a I-80/US-50 to Jefferson Boulevard		
Yolo	102.03	30.55%
Yolo	102.04	24.56%
Segment 3b Jefferson Boulevard to I-5		
Yolo	101.02	30.78%
Sacramento	22.00	10.35%
Sacramento	21.00	4.90%

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates. Table B15003

4.5.2 Environmental Consequences

The environmental consequences of the proposed alternatives are evaluated for their potential to adversely affect underserved and disadvantaged communities through changes in the human and natural environment. Project effects on communities can include changes in pollutant burdens, modifications to community character, and exacerbation of historical impacts from transportation infrastructure (e.g., divided communities). Localized changes in air quality, noise, and visual resources in underserved communities are described. Conclusions from the Environmental Justice section are referenced; please refer to section 4.4 Environmental Justice for an evaluation of whether minority and/or low-income populations would experience disproportionately adverse effects.

4.5.2.1 Build Alternatives

All Build Alternatives would occur primarily within the existing Caltrans right-of-way, and no property acquisitions in underserved communities would occur. Build Alternatives 2 through 6 would widen the highway footprint primarily to the center median; these alternatives would not substantially change the traffic mix. All Build Alternatives would construct a new Park-and-Ride

Facility on a vacant parcel south of I-80 at Enterprise Boulevard in West Sacramento, in a traditionally underserved community. No residential or business acquisitions in underserved communities would occur. The Build Alternatives would not divide communities. Build Alternatives 2 through 6 would widen the highway footprint. Build Alternative 7 would repurpose existing lanes as managed lanes. The Build Alternatives would not contribute to the historical division of the City of West Sacramento area that occurred with the construction of I-80 in the 1970s; the added lanes within the existing I-80 corridor do not further divide the community or remedy those historical divisions.

Noise from highway operations can influence community character and burden sensitive populations. Although Build Alternatives 2 through 6 would increase capacity and operational traffic, they would not change the traffic mix or move major roadways closer to sensitive receptors so that operational noise conditions would be perceptible. Build Alternative 7, which would repurpose an existing lane to HOV, would not increase capacity or shift lane locations compared to the No-Build Alternative. As discussed in the community character (Section 4.1) and environmental justice sections (Section 4.4), the noise study concluded that future noise levels along I-80 would increase from 0 to +2 dBA under all Build Alternatives. This modest increase in noise would be barely perceptible and would not substantially affect adjacent communities or disproportionately affect community character or quality of life in underserved communities in the study area.

Vehicular air pollution and health disparities associated with those air pollutants (including asthma, cardiovascular disease, and low birth weight) are disproportionately borne by residents who live near major highways in California (Union of Concerned Scientists 2019). Traffic is a significant source of air pollution, particularly in urban areas, where more than 50 percent of particulate emissions come from traffic (OEHHA 2021). Exhaust from vehicles also contains toxic chemicals, including nitrogen oxides, carbon monoxide, and benzene. When determining whether the Project would affect communities already burdened by air pollution and associated health risks, the analysis of projected air quality conditions was used. Air pollution emissions, including reactive organic compounds, nitrogen oxides, carbon monoxide, and DPM,, are predicted to be lower in future years under the Build Alternatives than present levels (Caltrans 2023b). This is primarily a function of improved emission standards and the shift to more electric vehicles in future years rather than changes in traffic operations under the Build Alternatives. Although future emissions would be lower under all alternatives, the amount of fugitive particulate matter emitted with the No-Build and Build Alternatives is proportional to changes in VMT, so each alternative differs in its relative reduction in future emission levels; see Section 4.1.2. Overall, Build Alternatives 2 through 5 would increase future VMT, and Build Alternatives 6 and 7 would reduce future VMT compared to the future No-Build Alternative. Overall, the Build Alternatives would not significantly exacerbate air pollutant conditions compared to existing conditions and would not significantly exacerbate conditions compared to the future No-Build Alternative for nearby underserved communities and communities with associated health disparities. How changes in air pollutants affect health outcomes for communities that already have high pollutant burdens is difficult to predict. As noted by FHWA (2023), "While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited." Because of the limitations in

the methodologies for forecasting health impacts, predicted differences in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts (FHWA 2023).

Additionally, as part of the transportation conformity process for particulate matter, an interagency committee that includes the FHWA, Federal Transit Administration, and USEPA found the Project not to be a project of air quality concern. The Air Quality Report (Caltrans 2023b) concludes that the Build Alternatives would not substantially increase the pollution burden on neighboring communities in the long term when compared to the No-Build condition.

Visual changes would also influence community character in adjacent underserved communities. The project proposes to increase the amount of paving within the existing width of the freeway, introduce new overhead signage elements and remove median plantings and roadside trees, which provide visual buffering. These changes would have a notable visual impact that is apparent to both highway users and highway neighbors, including the surrounding community. While visual changes for neighboring communities would be more modest than changes experienced by highway users, the Build Alternatives may increase the dominance of the transportation facility in neighboring viewsheds, further degrading the existing visual condition for disadvantaged communities adjacent to the highway.

Although the Build Alternatives would not substantially affect socioeconomic conditions (e.g., housing cost, employment, and educational attainment), tolled lane options (Build Alternatives 3 through 5) would introduce new signage that may present challenges for linguistically isolated households. Only one census block in the Community Study Area, in West Sacramento, has a high proportion of households where no one over the age of 14 speaks English; residents in these neighborhoods may be initially challenged by the toll-related signage and the process for obtaining toll transponders. Providing instructions in multiple languages will help offset this burden, and linguistically isolated households are likely to adapt to the new signage and lane operations over time. As described in Section 4.4.2, use of tolled lanes constitutes a higher financial burden on low-income travelers who choose to use them than on higher-income individuals.

During construction, short-term changes in access, circulation, light/glare noise and air quality would occur. Intermittent and temporary ramp and lane closures would inconvenience all roadway users and could require alternative traffic routing. Neighboring residents and businesses may experience short-term noise, fugitive dust and light/glare from construction activities. Construction-related impacts on noise, air quality, light/glare, and traffic would be minimized through BMPs for noise abatement, fugitive dust control, light and glare screening measures, and traffic management planning.

The Build Alternatives 2 through 5 would improve traffic conditions for highway users, including members of underserved and disadvantaged communities. Build Alternative 6 would add a transit-only lane, which could benefit underserved communities that use transit at a higher rate than other communities. However, Build Alternative 6 does not substantially improve overall traffic conditions for all highway users. Build Alternative 7 would not increase the p.m. peak hour volume or decrease the vehicle hours of delay compared to the No-Build Alternative, so would

not improve traffic conditions for highway users. Refer to Chapter 5 Traffic and Circulation for more information.

Please refer to the environmental justice section for an analysis of tolling and low-income populations.

4.5.2.2 No-Build Alternative

Alternative 1 (No-Build) would not adversely affect underserved and disadvantaged communities through community disturbance, or tolls. The No-Build Alternative also would not provide the travel benefits of the Build Alternatives.

4.5.3 Avoidance and Minimization Measures

Based on the above discussion and analysis, the Build Alternatives would not substantially exacerbate existing negative conditions for neighboring underserved and disadvantaged populations. The Project would not increase pollution burdens or divide or disrupt existing neighborhoods.

If a tolled lane option (Alternatives 3, 4, or 5) is selected as the preferred alternative, Caltrans future-appointed tolling authority would be required to implement a tolling program in alignment with Caltrans Language Access Plan (2020) and Deputy Directive 91-R2, which would accommodate use of toll lane options by LEP community members. Caltrans 2020 Language Access Plan lays out reasonable steps to provide LEP individuals with meaningful access to all Caltrans activities, including the provision of translation and interpretation services to the public. The tolling authority would adhere to these policies. See also AMMs described in Section 4.4.3.

Chapter 5 Traffic and Transportation / Pedestrian and Bicycle Facilities

5.1 Access and Circulation

5.1.1 Affected Environment

I-80 is a transcontinental interstate facility serving the movement of people and goods between Northern California and the eastern United States. It serves as a major east-west transportation corridor between the San Francisco Bay Area and Sacramento region. Within the Project limits, the I-80/US-50 corridor provides a primary connection for east-west travel in Solano, Yolo, and Sacramento Counties, as well as connections to major north-south corridors of SR-113 in Yolo County and I-5 and SR-99 in Sacramento County. Within the Sacramento region, the route serves local and commute traffic, traffic to and from the San Francisco Bay Area, recreational traffic to and from the Lake Tahoe Basin, and is a primary corridor for goods movement. The Yolo Bypass Wildlife Area and floodplain limits east-west linkages between Davis and West Sacramento, funneling many modes and forms of transportation into the narrow Yolo Causeway I-80 corridor. Within the Project limits, I-80/US-50 accommodates a wide range of transportation modes, which include personal cars, Park-and-Ride users, transit buses, vanpools/carpools, bicyclists, and freight trucks. No parking is permitted along the highway.

Within the Project limits, I-80/US-50 has three system (highway) interchanges with SR-113, US-50, and I-5 and 13 service interchanges onto the following local roads: Pedrick Road, Kidwell Road, Old Davis Road, Richards Boulevard, Olive Drive, Mace Boulevard, CR-32A/Chiles Road, West Capitol Avenue/Enterprise Boulevard, Harbor Boulevard, Jefferson Boulevard, South River Road/5th Street, Reed Avenue, and West El Camino. Figure 5-1, taken from the *I-80/US-50 Managed Lanes Transportation Analysis Report* (Fehr & Peers 2023), shows a.m. and p.m. peak hour volumes at these locations.

The project area has several bottlenecks that delay travelers during the a.m. and p.m. peak periods. The bottlenecks and the approximate duration of congestion are listed below.

- Eastbound I-80 at Mace Boulevard – from 7:30 to 8:00 a.m. and from 2:30 to 6:30 p.m.
- Eastbound I-80 at County Road 32A – from 3:30 to 6:30 p.m.
- Eastbound I-80 at Reed Avenue – from 4:15 to 6:15 p.m.
- Eastbound US 50 at I-5 – from 3:15 to 6:00 p.m.
- Westbound I-80 at West Capitol Avenue – from 6:30 to 10:00 a.m. and from 5:00 to 6:15 p.m.
- Westbound US 50 at Jefferson Boulevard – from 5:15 to 6:15 p.m.

Bottlenecks also exist in the study area eastbound and westbound on I-80 at I-5 and on eastbound and westbound US 50 in downtown Sacramento between I-5 and SR 51/SR 99. The most severe congestion occurs eastbound during the p.m. peak hour when average travel time from I-80 at Kidwell Road to US 50 at SR 51/SR 99 is about twice the travel time at free-flow speeds.

Map of the proposed 100th Street Transitway showing station locations and counts. The map includes labels for major roads: Pedrick Rd, Kidwell Rd, SR 113 & Old Davis Rd, Richards Blvd, Olive Dr, Mace Blvd, and Chiles Rd/Co Rd 32A. Stations are marked with dots and labeled with their station number and count in parentheses. The map shows the transitway running horizontally, with various road crossings and station locations indicated by lines and dots.

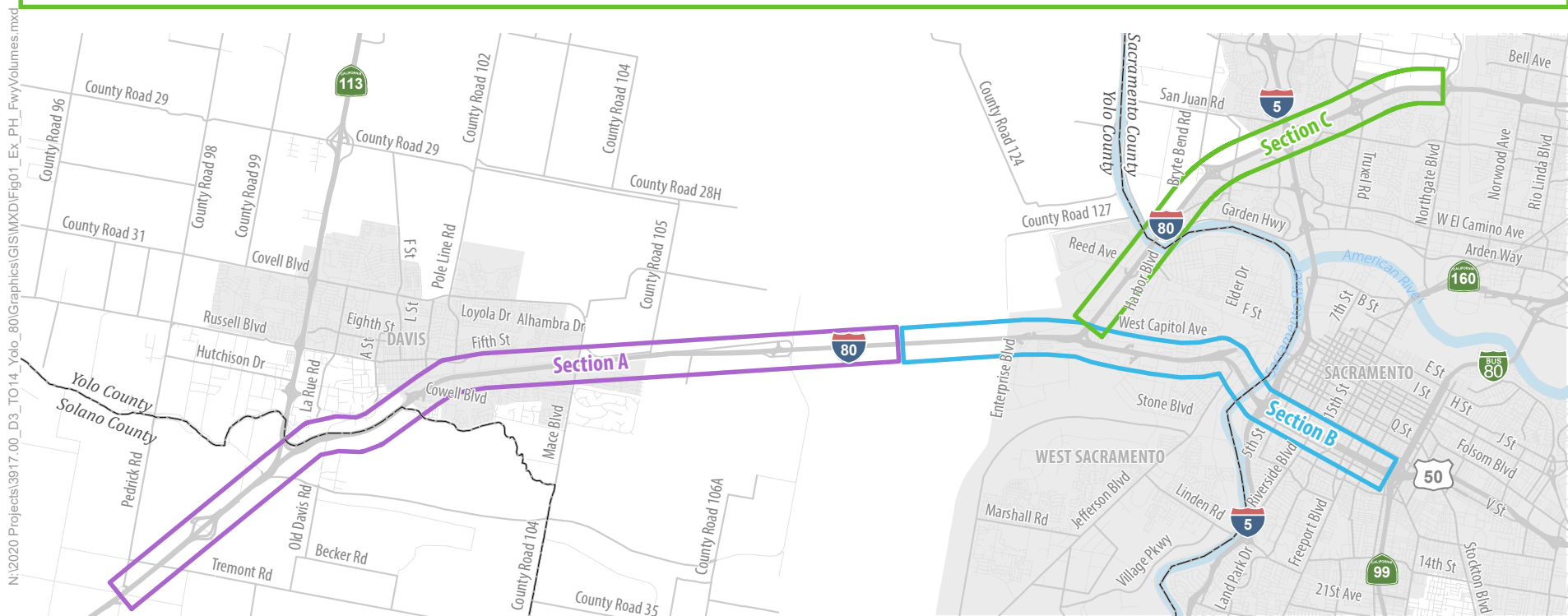
Station	Count
204	166
4,728	4,314
37	12
63	38
4,754	4,340
1,056	907
29	193
856	885
352	204
4,877	4,329
141	265
105	65
310	383
299	204
292	93
5,122	4,043
463	381
839	940
5,498	4,602
10	32
253	290
5,741	4,860

The map displays the SR 51/99 corridor with proposed station locations and ridership estimates. The corridor is divided into two sections by a central horizontal line. The top section shows the corridor from W Capitol Ave/Enterprise Blvd to SR 51/99, and the bottom section shows the corridor from SR 51/99 to SR 51/99. The map includes labels for major roads and stations, with ridership estimates in parentheses next to the station names.

Location	Ridership Estimate
W Capitol Ave/Enterprise Blvd	302 (423)
US 50	494 (988)
I-80	5,543 (5,879)
Harbor Blvd	1,756 (2,323)
SR 275/Jefferson Blvd/S River Rd	1,673 (1,855)
I-5	5,460 (5,412)
5th St	153 (200)
I-5	680 (687)
10th/11th St & 15th/16th St	933 (1,118)
SR 51/99	5,559 (5,642)
SR 51/99	300 (551)
SR 51/99	652 (556)
SR 51/99	1,717 (1,432)
SR 51/99	1,202 (808)
SR 51/99	7,526 (6,775)
SR 51/99	903 (1,116)
SR 51/99	423 (150)
SR 51/99	730 (1,172)
SR 51/99	2,240 (1,789)
SR 51/99	1,675 (832)
SR 51/99	9,385 (6,958)
SR 51/99	475 (755)
SR 51/99	572 (908)
SR 51/99	495 (624)
SR 51/99	9,977 (7,735)
SR 51/99	1,825 (2,448)
SR 51/99	1,580 (733)
SR 51/99	798 (358)
SR 51/99	362 (150)
SR 51/99	924 (399)
SR 51/99	5,505 (4,751)
SR 51/99	2,721 (2,281)
SR 51/99	1,405 (1,719)
SR 51/99	4,189 (4,189)
SR 51/99	207 (253)
SR 51/99	532 (510)
SR 51/99	1,700 (1,414)
SR 51/99	5,150 (4,840)
SR 51/99	249 (507)
SR 51/99	151 (797)
SR 51/99	843 (1,481)
SR 51/99	674 (734)
SR 51/99	6,267 (5,751)
SR 51/99	260 (474)
SR 51/99	751 (474)
SR 51/99	242 (441)
SR 51/99	707 (1,816)
SR 51/99	2,671 (1,808)
SR 51/99	8,392 (7,986)
SR 51/99	716 (843)
SR 51/99	1,312 (813)
SR 51/99	1,021 (723)
SR 51/99	10,009 (8,679)
SR 51/99	1,247 (1,267)
SR 51/99	2,508 (2,115)

The map displays the I-5 corridor with cumulative vehicle miles traveled (VMT) for the years 2000, 2010, and 2020. The corridor is divided into segments, each labeled with its cumulative VMT for the three years. The segments are as follows:

- US 50: 1,405 (1,719), 3,161 (4,042), 889 (512), 517 (1,661), 2,789 (5,191), 425 (1,256)
- W El Camino Ave: 606 (453), 540 (485), 3,510 (4,872), 155 (59), 680 (1,503), 1,057 (926), 2,743 (2,847), 6,475 (7,083), 1,385 (1,223)
- I-5: 667 (557), 606 (453), 6,363 (6,870), 924 (615)
- Truxel Rd: 1,673 (1,855), 4,393 (4,137), 272 (904), 1,546 (1,242), 5,667 (4,475), 533 (206), 416 (383), 815 (468), 5,533 (4,353), 1,048 (961), 74 (211), 2,713 (2,174), 992 (1,280), 8,116 (6,635), 1,196 (1,102), 353 (199), 1,061 (1,172), 7,628 (6,505), 412 (667)
- Northgate Blvd: 1,405 (1,719), 3,161 (4,042), 889 (512), 517 (1,661), 2,789 (5,191), 425 (1,256), 606 (453), 540 (485), 3,510 (4,872), 155 (59), 680 (1,503), 1,057 (926), 2,743 (2,847), 6,475 (7,083), 1,385 (1,223), 667 (557), 606 (453), 6,363 (6,870), 924 (615)



Note: Weekday peak hours are 7-8 AM & 4-5 PM as measured for October 2019.



Data Source: Fehr & Peers 2021

5.1.2 Environmental Consequences

5.1.2.1 Build Alternatives

The following summary of anticipated traffic impacts under the Build Alternatives is based on the Project's *Travel Demand Modeling Report* (Fehr & Peers 2021d) and *Transportation Analysis Report* (Fehr & Peers 2023). The SACSIM19 regional travel demand model was applied to forecast traffic volumes and performance measures for opening year 2029 and horizon year 2049 conditions; freeway operations were analyzed for the four-hour a.m. and p.m. peak periods using the Vissim traffic simulation software so that congestion can be modeled across time and space (Fehr & Peers 2023). The analysis modeled all performance measures for the No-Build Alternative and Build Alternatives 2a, 2b, 3a, 4a, 5a, 6a, and 7a. The comparison of operational performance of Build Alternatives 2a and 2b was extended to the other “b” alternatives to estimate the improvements achieved with the I-80/US-50 managed lane direct connector (Fehr & Peers 2023).

Traffic analysis was performed for opening year (2029) and horizon year (2049) conditions at three segments of the I-80 Project corridor: I-80 at the Yolo Causeway, US-50 at the Sacramento River, and I-80 at the Sacramento River. Table 5-1 presents the horizon year 2049 p.m. peak hour mainline demand volumes at these locations under the No-Build and Build Alternatives. In general, Build Alternatives 2a, 3a, 4a, and 5a would increase the p.m. peak hour volume at all three locations when compared to the future No-Build Alternative (Table 5-1). Based on comparison of Build Alternatives 2a and 2b, the “b” alternatives would further increase eastbound peak hour mainline volumes by adding a direct connection of the managed lanes with the I-80 connector. Build Alternative 6 (transit-only) and Build Alternative 7 (repurpose HOV) would not be as effective in moving vehicles through the corridor, resulting in decreased peak hour mainline demand volumes at the Yolo Causeway and I-80/Sacramento River (Reed Avenue to West El Camino Avenue) locations.

Table 5-1. P.M. Peak Hour Mainline Demand Volumes - Horizon Year 2049

Alternative	Eastbound Vehicle Trips	Percent change from No-Build	Westbound Vehicle Trips	Percent change from No-Build
I-80: Yolo Causeway (CR-32A to Enterprise Boulevard)				
Alt 1 No-Build	6,250	n/a	5,810	n/a
Alt 2a HOV2+	7,040	12.6%	6,460	11.2%
Alt 2b HOV w I-80 connector	7,120	13.9%	6,410	10.3%
Alt 3a HOT2+	7,100	13.6%	6,410	10.3%
Alt 3b HOT2+ w I-80 connector	7,150	14.4%	6,420	10.5%
Alt 4a HOT3+	6,970	11.5%	6,120	5.3%
Alt 4b HOT3+ w I-80 connector	7,110	13.8%	6,350	9.3%
Alt 5a Express lane	6,570	5.1%	5,950	2.4%

Alternative	Eastbound Vehicle Trips	Percent change from No-Build	Westbound Vehicle Trips	Percent change from No-Build
Alt 5b Express lane w I-80 connector	7,080	13.3%	6,280	8.1%
Alt 6a Transit-only	6,030	-3.5%	5,480	-5.7%
Alt 6b Transit-only w I-80 connector	6,030	-3.5%	5,480	-5.7%
Alt 7a Repurpose Lane to HOV	6,190	-1.0%	5,630	-3.1%
Alt 7b Repurpose Lane to HOV w I-80 connector	6,210	-0.6%	5,640	-2.9%
US-50 Sacramento River: Jefferson Boulevard/South River Road to I-5				
Alt 1 No-Build	8,390	n/a	7,940	n/a
Alt 2a HOV2+	9,060	8.0%	8,380	5.5%
Alt 2b HOV w I-80 connector	9,080	8.2%	8,370	5.4%
Alt 3a HOT2+	9,150	9.1%	8,340	5.0%
Alt 3b HOT2+ w I-80 connector	9,140	8.9%	8,420	6.0%
Alt 4a HOT3+	9,390	11.9%	7,870	-0.9%
Alt 4b HOT3+ w I-80 connector	8,990	7.2%	8,210	3.4%
Alt 5a Express lane	8,740	4.2%	7,580	-4.5%
Alt 5b Express lane w I-80 connector	9,040	7.7%	8,330	4.9%
Alt 6a Transit-only	8,250	-1.7%	7,600	-4.3%
Alt 6b Transit-only w I-80 connector	8,250	-1.7%	7,600	-4.3%
Alt 7a Repurpose Lane to HOV	8,640	3.0%	7,780	-2.0%
Alt 7b Repurpose Lane to HOV w I-80 connector	8,600	2.5%	7,940	0.0%
I-80 Sacramento River: Reed Avenue to West El Camino Avenue				
Alt 1 No-Build	6,660	n/a	6,380	n/a
Alt 2a HOV2+	6,990	5.0%	6,160	-3.4%
Alt 2b HOV w I-80 connector	7,000	5.1%	6,210	-2.7%
Alt 3a HOT2+	7,040	5.7%	6,190	-3.0%
Alt 3b HOT2+ w I-80 connector	7,050	5.9%	6,250	-2.0%
Alt 4a HOT3+	6,600	-0.9%	6,210	-2.7%
Alt 4b HOT3+ w I-80 connector	6,990	5.0%	6,370	-0.2%

Alternative	Eastbound Vehicle Trips	Percent change from No-Build	Westbound Vehicle Trips	Percent change from No-Build
Alt 5a Express lane	6,450	-3.2%	6,060	-5.0%
Alt 5b Express lane w I-80 connector	6,920	3.9%	6,190	-3.0%
Alt 6a Transit-only	6,330	-5.0%	6,080	-4.7%
Alt 6b Transit-only w I-80 connector	6,330	-5.0%	6,080	-4.7%
Alt 7a Repurpose Lane to HOV	6,150	-7.7%	5,900	-7.5%
Alt 7b Repurpose Lane to HOV w I-80 connector	6,140	-7.8%	5,940	-6.9%

Source: Fehr & Peers 2023, Appendix U Total Demand Volumes

The *Transportation Analysis Report* (Fehr and Peers 2023) also evaluated changes in daily vehicle hours of delay (VHD) by Build Alternative within the Project corridor. VHD is a measure of the overall amount of excess time vehicles spend in congestion. Table 5-2 presents corridor daily VHD results by Build Alternative for the opening year 2029 and horizon year 2049 compared to the No-Build Alternative. In 2029, Build Alternatives 6 (transit-only) and 7 (repurpose HOV) would have higher corridor daily VHD than the No-Build Alternative, and the other Build Alternatives would have lower corridor daily VHD. Corridor daily In 2049 for all Build Alternatives (2 through 7) would have lower corridor daily VHD than the No-Build Alternative. Build Alternatives 6 (transit-only) and 7 (repurpose HOV) would have the next highest corridor daily VHD. Build Alternatives 2 through 5 would have a corridor daily VHD less than half that of the No-Build Alternative. These results reflect that by the horizon year (2049), all Build Alternatives would improve traffic flow and decrease delay for corridor users, but in the short-term Build Alternatives 6 and 7 would worsen VHD conditions in the project corridor.

**Table 5-2. Corridor Daily Vehicle Hours of Delay
Opening Year 2029 and Horizon Year 2049**

Alternative	2029 VHD	Percent change from No-Build	2049 VHD	Percent Change from No-Build
Alt 1 No-Build	18,333	n/a	44,315	n/a
Alt 2a HOV2+	12,466	-32.0%	19,567	-55.8%
Alt 2b HOV w I-80 connector	12,510	-31.8%	19,417	-56.2%
Alt 3a HOT2+	12,115	-33.9%	19,581	-55.8%
Alt 3b HOT2+ w I-80 connector	12,113	-33.9%	19,744	-55.4%
Alt 4a HOT3+	13,485	-26.4%	21,888	-50.6%
Alt 4b HOT3+ w I-80 connector	13,486	-26.4%	22,070	-50.2%
Alt 5a Express lane	15,197	-17.1%	22,989	-48.1%
Alt 5b Express lane w I-80 connector	15,196	-17.1%	23,179	-47.7%

Alternative	2029 VHD	Percent change from No-Build	2049 VHD	Percent Change from No-Build
Alt 6a Transit-only	20,641	12.6%	36,534	-17.6%
Alt 6b Transit-only w I-80 connector	20,641	12.6%	36,534	-17.6%
Alt 7a Repurpose Lane to HOV	21,740	18.6%	33,878	-23.6%
Alt 7b Repurpose Lane to HOV w I-80 connector	21,816	19.0%	33,618	-24.1%

Source: Fehr & Peers 2023

The *Transportation Analysis Report* (Fehr & Peers 2023), makes the following conclusions for the horizon year 2049 conditions during the a.m. and p.m. peak periods:

- For the a.m. peak period, eastbound I-80 congestion under the No Build Alternative at Mace Boulevard would grow to two-and-a-half hours and congestion at the County Road 32B bottleneck would be about an hour. On eastbound US 50, congestion from the I-5 bottleneck would extend back to I-80.
- Alternative 6a (transit-only) would have less eastbound congestion at Mace Boulevard and County Road 32B (less than an hour at each) than the No-Build Alternative during the a.m. peak period.
- For the a.m. peak period, Alternatives 2a, 2b, 3a, 4a, and 5a would have no eastbound congestion at Mace Boulevard and County Road 32B, and I-5 congestion would only extend to about Jefferson Boulevard.
- Alternative 7a would have eastbound bottlenecks at Mace Boulevard, County Road 32B, and South River Road that would start around 7:00 a.m. and extend beyond 10:00 a.m..
- Westbound I-80 a.m. peak period congestion at the Yolo Causeway would grow under the No-Build Alternative and Build Alternative 6a to extend outside the a.m. peak period and extend upstream to SR 51/SR 99 on US 50 and merge with a bottleneck at West El Camino Avenue on I-80 to extend upstream beyond Northgate Boulevard.
- Alternative 7a would have worse westbound congestion upstream on both US 50 and I-80 with speeds lower than 20 mph for most of the a.m. peak period, compared to the No-Build Alternative.
- Under Build Alternatives 2a, 2b, 3a, 4a, and 5a, westbound congestion at the Yolo Causeway bottleneck would be lower during the a.m. peak period than the No-Build Alternative, but a new bottleneck would form at the lane drop after the US 50 off-ramp. The combined congested area would extend outside the peak period and extend upstream to Harbor Boulevard on US 50.

- During the westbound a.m. peak period, Alternative 2b (HOV2+ with I-80 connector) would have the least upstream congestion on both US 50 and I-80 with the additional capacity provided by the median ramp from I-80 and the reduced volume in the weaving section on I-80 between US 50 and West Capitol Avenue.
- Under the No-Build Alternative and Alternative 6a, p.m. peak period congestion at the eastbound I-80 bottlenecks at Mace Boulevard, County Road 32B, and South River Road would expand to outside the p.m. peak period. Congestion at Mace Boulevard would extend upstream of Pedrick Road in Solano County by 4:00 p.m..
- During the p.m. peak period, Build Alternatives 2a, 2b, 3a, 4a, and 5a would have increased eastbound throughput at Mace Boulevard and would delay the congestion at Pedrick Road until 5:00 p.m.. Congestion at the County Road 32B and South River Road bottlenecks would be reduced, but the eastbound congestion at the I-80/US 50 interchange due to queuing from the I-5/I-80 and/or I-80/Reed Avenue interchanges would be similar to the No-Build Alternative.
- Under Alternative 7a, eastbound I-80 would be congested for the entire p.m. peak period due to major bottlenecks at Mace Boulevard, Harbor Boulevard, and I-5.
- In the westbound direction, a new bottleneck at the Jefferson Boulevard and I-80 off-ramps on US 50 during the p.m. peak period would have one-and-a-half hours of congestion under the No-Build Alternative. Congestion on I-80 at the Yolo Causeway would last more than three hours and extend upstream to US 50.
- Alternatives 2a, 2b, 3a, 6a and 7a would also have a westbound bottleneck at the Jefferson Boulevard off-ramp during the p.m. peak period.
- Alternatives 2a, 2b, 3a, 4a, 6a, and 7a would also have a westbound bottleneck at the I-80 off-ramp during the p.m. peak period. The I-80 off-ramp bottleneck would be caused by ramp demand exceeding capacity.
- The Reed Avenue off-ramp would have high demand volumes leading to congested westbound conditions for the ramp diverge during the p.m. peak period under all Build Alternatives.

Overall, Build Alternatives 2 through 5 would improve traffic operations over the No-Build Alternative, resulting in improvements in travel times for nearby community members using the Project corridor. The added lane would provide additional capacity, relieving system bottlenecks. These improvements would also decrease traffic and congestion on surrounding surface streets by allowing more travelers to move onto the freeway in a shorter time. Because the Project would occur along the existing right-of-way, it would not restrict long-term vehicle or pedestrian access to stores, public services, schools, and other facilities. Additionally, all Build Alternatives include ITS improvements and auxiliary lanes, which would help facilitate circulation between I-80/US-50 and the surrounding surface streets, benefiting access to neighboring communities and businesses.

Build Alternative 6 would slightly improve peak hour traffic operations in the eastbound direction compared to the No-Build Alternative but would worsen peak conditions in the westbound direction. Build Alternative 7 would have negative effects on peak period traffic operations compared to the No-Build Alternative due to the conversion of an existing general purpose lane to HOV. These alternatives would not provide the same level of benefits to neighboring communities as Build Alternatives 2 through 5 since the traffic improvements are minor or nonexistent. Nonetheless, compared to the No-Build Alternative, the ITS improvements and auxiliary lanes under all Build Alternatives would facilitate circulation between I-80/US-50 and the surrounding surface streets, benefiting access to neighboring communities and businesses.

During construction, there would be temporary traffic delays and potential ramp closures on I-80 and US-50 that could result in temporary effects on access and circulation. These short-term, intermittent, and temporary ramp and lane closures would inconvenience all roadway users and could require alternative traffic routing. Because Build Alternative 7 would not add new lanes, but would rather repurpose existing lanes as managed lanes, the Build Alternative 7 construction period may have shorter duration and therefore result in fewer delays and inconveniences than those under Build Alternatives 2 through 6. With the “b” alternatives, the construction period would be longer and a temporary full closure may be needed on westbound US-50; the primary detour for westbound US-50 traffic would be to use northbound I-5 to westbound I-80. Throughout construction, local traffic would adjust routes and use other interchanges in the area for access. These temporary impacts would be minimized through implementation of a TMP, as described below.

Caltrans standard construction measures and BMPs include the following requirements:

- Pedestrian and bicycle access would be maintained during construction.
- The contractor would be required to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to driveways, houses, and buildings within the work zones.
- Work requiring traffic control on mainline, ramps, and shoulders would be limited to nighttime hours and no lane closures would be in effect during daytime and peak commute hours on weekdays.
- Detour routes would be marked for nighttime ramp and connector closures.
- A TMP would be applied to the Project.

5.1.2.2 No-Build Alternative

Alternative 1 (No-Build) would not improve traffic conditions along the Project corridor. As shown in Table 5-2, VHD for the No-Build scenario is projected to increase from 18,333 VHD in 2029 to 44,315 in 2049, which represents a significant increase in delay. The No-Build Alternative would worsen VHD conditions in the project corridor. The No-Build Alternative is not consistent with the transportation purpose and need of this project.

5.1.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would not adversely affect long-term circulation and access. The permanent impacts on transportation of Build Alternatives 2 through 5 would be positive overall due to a reduction of traffic delays. In accordance with standard Caltrans protocol, a TMP would be developed to manage circulation and access during construction. Caltrans standard project features require the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to driveways, houses, and buildings within the work zone. The TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP. With these standard practices, no avoidance and minimization measures are required.

5.2 Parking

5.2.1 Affected Environment

Parking is provided at existing Park-and-Ride facilities within the Project limits. Caltrans operates two Park-and-Ride facilities in West Sacramento on Enterprise Drive at the I-80/West Capitol Avenue/Enterprise Drive interchange. The facility located on the northwest corner of the interchange provides 123 parking spaces and the facility located on the southwest corner of the interchange provides an additional 84 spaces for a total of 207 spaces. The Mace Boulevard Park-and-Ride Facility is in Davis northeast of the I-80/Mace Boulevard interchange and is accessed from CR-32A. The Mace Boulevard Park-and-Ride Facility provides approximately 135 parking spaces.

5.2.2 Environmental Consequences

5.2.2.1 Build Alternatives

All Build Alternatives would occur primarily within the existing Caltrans ROW and would not remove existing parking on nearby parcels. Construction activities associated with the Build Alternatives would not affect parking for businesses or residents.

All Build Alternatives would construct a new Park-and-Ride Facility south of I-80 at Enterprise Boulevard in West Sacramento. The new Park-and-Ride Facility would be constructed southeast of the I-80/West Capitol Avenue/Enterprise Boulevard interchange, partially within existing Caltrans ROW and partially outside the existing ROW, on a vacant parcel between Enterprise Boulevard and Lake Road. These alternatives would more than double the available spaces for Park-and-Ride users.

5.2.2.2 No-Build Alternative

No change in parking availability or access would occur under Alternative 1 (No-Build).

5.2.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would improve parking by adding a new Park-and-Ride Facility. No avoidance, minimization, or mitigation measures are proposed.

5.3 Public Transportation

5.3.1 Affected Environment

Primary providers of bus and rail transit in the Project area include YoloBus, Sacramento Regional Transit, Amtrak, Fairfield/Suisun Transit, Vallejo Baylink Ferry, and Greyhound Bus. As noted in the Project's purpose and need in Chapter 1, Caltrans recognizes that there is need to improve transit access and viability along the Project corridor for YoloBus, Solano Transit, and Causeway Connection electric buses between UC Davis campus and UC Davis Medical Center.

5.3.1.1 YoloBus

The Yolo County Transportation District administers YoloBus, which operates local and intercity bus service 365 days a year in Yolo County and neighboring areas. YoloBus provides transit service within and between the Cities of Davis, West Sacramento, and Sacramento along the I-80/US-50 corridor. YoloBus operates more than 17 routes that use the project corridor, including express bus routes between Davis and Sacramento (Yolo County Transportation District 2021).

5.3.1.2 Causeway Connection

YoloBus and SacRT jointly operate the Causeway Connection (Route 138) bus service along the Project corridor. The Causeway Connection (Route 138) zero emission bus service between Davis and Sacramento is an hourly service Monday through Friday and operates 30 trips between the Silo Terminal in Davis and the UC Davis Medical Center in Sacramento. All Causeway Connection trips serve three Davis stops: Mondavi Center, Genome Biological Science Facility and the UC Davis Silo (SacRT 2021).

5.3.1.3 Solano Express Blue Line

Fairfield and Suisun Transit, in cooperation with the Solano Transportation Authority, operates the Solano Express Blue Line along I-80 in the Project area. The Solano Blue Line provides transit service between the Pleasant Hill BART station and the Sacramento Valley Station, with stops in Dixon, UC Davis, and Sacramento (Fairfield and Suisun Transit 2021).

5.3.1.4 Greyhound Bus

Greyhound Bus uses the I-80/US-50 corridor to provide daily bus service between San Francisco and Reno, Nevada, with a major stop at the Sacramento Valley station.

5.3.1.5 Capital Corridor

Capitol Corridor is an intercity passenger rail service that operates between the Bay Area and the Sacramento Region, with rail service to 18 stations in 8 counties: Placer, Sacramento, Yolo, Solano, Contra Costa, Alameda, San Francisco, and Santa Clara. Operated by the Capitol Corridor Joint Powers Authority, the Capitol Corridor rail line parallels I-80 in the Project area with connection between Sacramento and downtown Davis. In Fiscal Year 2019, ridership on the Capitol Corridor passenger rail service hit an all-time high of 1,777,136 riders before the novel coronavirus pandemic (Capitol Corridor Joint Powers Authority 2021).

5.3.1.6 Existing Transit Use

Table 5-3 presents a summary of existing travel use by various travel modes, including transit, at three study locations: I-80 at Yolo Causeway, US-50 at Sacramento River, and I-80 at Sacramento River. The travel modes in SACSIM are walk, bicycle, SOV, HOV2, HOV3+, transit, and school bus. I-80 at the Yolo Causeway includes a bicycle/pedestrian trail; therefore, walk and bicycle trips are included for that location. As shown in the table, transit users make up no more than 3 percent of travelers. Notably, travelers on transit have a considerably longer average travel time, more than twice the travel duration of other vehicle modes.

Table 5-3. Average Distance and Duration of Daily Person Trips by Travel Mode

Location	Travel Mode	Eastbound				Westbound			
		Vehicle Trips		Average Dis- tance	Average Duration	Vehicle Trips		Average Dis- tance	Average Duration
		Number	Percent	Miles	Minutes	Number	Percent	Miles	Minutes
I-80 at Yolo Causeway	Walk	1	0.0%	8.5	170.7	1	0.0%	8.5	170.4
	Bicycle	871	2.1%	19.4	116.4	849	2.1%	19.8	118.9
	SOV	20,615	49.3%	22.4	33.1	20,397	49.4%	23.0	34.4
	HOV2	9,085	21.7%	22.1	32.2	8,966	21.7%	22.2	32.3
	HOV3+	9,777	23.4%	23.0	33.4	9,722	23.5%	23.5	34.0
	Transit	1,227	2.9%	19.3	106.4	1,142	2.8%	20.1	111.3
	School Bus	226	0.5%	23.7	35.7	227	0.5%	24.9	37.3
	Total	41,802	100%	22.3	36.9	41,303	100%	22.8	37.7
US-50 at Sacramento River	SOV	39,039	50.8%	15.9	25.3	37,761	50.9%	15.9	25.3
	HOV2	17,432	22.7%	15.0	23.7	16,898	22.8%	15.0	23.5
	HOV3+	18,326	23.9%	15.5	24.5	17,689	23.8%	15.6	24.2
	Transit	1,530	2.0%	15.0	90.4	1,416	1.9%	15.5	90.3
	School Bus	479	0.6%	14.6	24.2	467	0.6%	14.4	24.0
	Total	76,806	100%	15.6	26.0	74,230	100%	15.6	25.9
	SOV	17,317	53.2%	20.2	29.3	17,254	54.0%	22.3	32.1
	HOV2	7,205	22.1%	19.6	27.6	6,798	21.3%	20.7	28.9

Location	Travel Mode	Eastbound				Westbound			
		Vehicle Trips		Average Dis- tance	Average Duration	Vehicle Trips		Average Dis- tance	Average Duration
		Number	Percent	Miles	Minutes	Number	Percent	Miles	Minutes
I-80 at Sacramento River	HOV3+	7,530	23.1%	20.2	28.4	7,467	23.4%	21.7	30.2
	Transit	281	0.9%	22.2	128.4	216	0.7%	26.0	152.8
	School Bus	200	0.6%	19.5	28.7	215	0.7%	21.4	31.8
	Total	32,533	100%	20.1	29.6	31,949	100%	21.8	31.8

Source: SACSIM base year 2016 travel demand model as reported in Fehr & Peers 2021a.

Note: The data represents person trips that remain internal to the SACOG region.

Walk and bicycle trips on I-80 at the Yolo Causeway are on the adjacent shared use path. No walk or bicycle trips are allowed on US-50 or I-80 at the Sacramento River.

5.3.2 Environmental Consequences

5.3.2.1 Build Alternatives

All Build Alternatives would have significant multimodal benefits. Project features would help promote transit usage and increase travel time reliability, bicycle/pedestrian access and safety, and potential mode shift away from single occupancy vehicles. Managed lanes (Build Alternatives 2 through 6) can offer the benefits of travel time savings and improved reliability for transit riders and reduced operating costs for transit providers, which may allow services to expand without additional resources (Metropolitan Transportation Commission 2019). Under all Build Alternatives, bus and transit service would directly benefit from the managed lane improvements and increase in peak hour volumes along the Project corridor. Under all Build Alternatives the construction of a new Park-and-Ride Facility is an important first-mile solution because it provides a meeting point for travelers to access higher occupancy vehicles such as ride-sharing options or public transit. This facility would also improve bus service by creating the need for fewer stops, reducing travel times, and reducing operating costs.

Under Build Alternative 6a, a transit-only lane would be added in both directions, improving transit service and reducing transit travel times. Build Alternative 6b would provide additional transit benefits beyond those under Alternative 6a by also including the construction of a transit-only I-80 connector.

The *Transportation Analysis Report* (Fehr & Peers 2023) provides an analysis of changes in transit ridership under future conditions for the alternatives (Table 5-4). Interim year 2027 ridership forecasts are used to represent the opening year 2029 conditions since the difference is only two years. Cumulative year 2040 ridership forecasts are used to approximate the horizon year 2049 conditions, although additional increases are likely with the planned land use growth between 2040 and 2049. As shown in the table, improving access and highway capacity under Build Alternatives 2 through 6 benefits transit ridership over the No-Build Alternative. Build Alternative 6, which provides a transit-only lane, has the highest increase in daily ridership.

Build Alternative 7, which has increased travel time since no lanes are added, has a decrease in transit ridership.

Table 5-4. Daily Transit Ridership -Interim Year 2027 and Cumulative Year 2040

Alternative	2027 Daily Ridership	Percent change from No-Build	2040 Daily Ridership	Percent Change from No-Build
Alt 1 No-Build	6,223	n/a	44,315	n/a
Alt 2a HOV2+	6,397	2.8%	19,567	5.6%
Alt 2b HOV w I-80 connector	6,534	5.0%	19,417	3.3%
Alt 3a HOT2+	6,539	5.1%	19,581	5.2%
Alt 4a HOT3+	6,378	2.5%	21,888	3.8%
Alt 5a Express lane	6,564	5.5%	22,989	2.3%
Alt 6a Transit-only	6,750	8.5%	36,534	14.4%
Alt 7a Repurpose Lane to HOV	5,934	-4.6%	33,878	-3.8%

Source: Fehr & Peers 2021d

5.3.2.2 No-Build Alternative

Alternative 1 (No-Build) does not implement physical changes that benefit transit riders. The deteriorating traffic conditions on I-80/ US-50 under future No-Build conditions could adversely affect transit users.

5.3.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would not adversely affect public transportation, though there would be short-term temporary traffic impacts during construction which would affect public transportation. To address construction-related impacts on transit, a TMP would be developed to manage circulation and access during construction. Caltrans standard project features require the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public and transit providers using the highway. The TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP. No avoidance, minimization, or mitigation measures are proposed.

5.4 Pedestrian and Bicycle Facilities

5.4.1 Affected Environment

The *Pedestrian and Bicyclist Travel Impact Assessment* (Caltrans 2023c) prepared for the Project provides detailed description of bicycle and pedestrian facilities along the Project corridor. Except for the Yolo Causeway bike path, I-80 and US-50 in the Project area do not provide bicycle and pedestrian facilities; bicycle and pedestrian accessibility is provided via the

surrounding arterial network. The report describes existing pedestrian and bicycle facilities and existing use from pedestrian and bicycle counts, where available. A summary of the report's description of existing facilities is provided below.

5.4.1.1 Solano County

Within unincorporated Solano County, the I-80/Pedrick Road and I-80/Kidwell Road interchange areas are in a rural agricultural area with limited residential and commercial land uses, and roadways in the vicinity of these interchanges lack pedestrian and bicycle infrastructure.

5.4.1.2 City of Davis and UC Davis

In contrast, all interchanges and overpasses within the City of Davis and near the UC Davis campus include well-defined pedestrian and bicycle facilities. The City of Davis and UC Davis have been trend-setters in establishing walkable and bicycle-friendly communities. The Old Davis Road, Richards Boulevard, Pole Line Road (Dave Pelz Bike Overcrossing), and Mace Boulevard interchanges include on- and off-street bicycle facilities and well-defined pedestrian infrastructure. Multiple shared-use paths are also present throughout the City of Davis.

5.4.1.3 Yolo Causeway

East of the City of Davis, the Yolo Causeway bicycle path is located along the northerly edge of the I-80 Yolo Causeway. The west end of the causeway bicycle path connects with CR-32 east of the City of Davis, and the east end connects with West Capitol Avenue in the City of West Sacramento. The Yolo Causeway bicycle path runs parallel to the westbound I-80 vehicle lanes and is separated from vehicular traffic by a concrete barrier with a chain link fence attached to the top of the barrier. Although the SACSIM travel model predicts more than 1,600 daily trips by bicycle on the Yolo Causeway path, a two-day traffic count in October 2018 measured about 100 bicycles per day (Table 5-5).

Table 5-5. Bicycle Volumes on Yolo Causeway Bicycle Path

Location	Weekday (7 a.m. to 7 p.m.)			Weekend (7 a.m. to 7 p.m.)		
	Eastbound	Westbound	Total	Eastbound	Westbound	Total
East of CR-32	26	18	44	51	58	109
North of W. Capitol Avenue	10	11	21	42	23	65

Source: Fehr & Peers 2023

5.4.1.4 City of West Sacramento

Within the City of West Sacramento, the availability of bicycle and pedestrian facilities is mixed. Enterprise Boulevard, West Capitol Avenue, and Industrial Boulevard near the west end of the City include sidewalks and some bicycle lanes, although there are no marked bicycle facilities at the West Capitol Avenue/I-80 interchange. West of the I-80/US-50 interchange, Harbor Boulevard and Jefferson Boulevard provide sidewalks at these interchanges, and Class II bicycle lanes are present at Harbor Boulevard, but there are gaps in the pedestrian and bicycle system at these locations. For example, South River Road/5th Street lacks sidewalks where the road passes underneath US-50, although the City of West Sacramento has plans to construct bicycle lanes and sidewalks on South River Road/5th Street where the road crosses under the freeway. Along the I-80 segment north of the I-80/US-50 interchange, the I-80/Reed Avenue interchange just south of the Sacramento River provides sidewalks and Class II bicycle lanes.

5.4.1.5 City of Sacramento

After crossing the Sacramento River, the Project ends near the I-80/West El Camino Avenue interchange. A sidewalk is provided along the north side of West El Camino Avenue through the interchange and Class II bicycle lanes are provided on West El Camino Avenue and on Orchard Lane.

5.4.2 Environmental Consequences

5.4.2.1 Build Alternatives

The physical improvements that would be constructed are mostly limited to the freeway mainline itself, with few proposed physical changes to the roadways or off-street pathways used by pedestrians and bicyclists. The exception is the proposed extension of the Yolo Causeway Class I bicycle path along the westbound off-ramp alignment to connect with CR-32A under all Build Alternatives. Also, the Build Alternatives would construct a Park-and-Ride Lot at the southeast corner of the I-80/Enterprise Boulevard Interchange, which could potentially have bicycle lockers and provide a transfer point between bicyclists, pedestrians, transit vehicles, and passenger vehicles.

The *Pedestrian and Bicyclist Travel Impact Assessment* (Caltrans 2023c) analyzed changes in traffic patterns that may affect the spaces shared with pedestrians and bicyclists by introducing new traffic into the area. Pedestrians and bicyclists are most vulnerable at intersections, where

pedestrians are required to share the roadway with motor vehicles and where bicyclists are subject to conflicting vehicular movements from motor vehicles and typically do not have a dedicated delineated space of their own. The report concludes that Project alternatives result in changes in traffic patterns that may affect the spaces shared with pedestrians and bicyclists by introducing new traffic into the area.

Depending on location, traffic volumes under the Build Alternatives experience a negligible change at freeway on- and off-ramps and the roadways that provide access to the ramps compared to the No-Build Alternative; however, some locations indicate substantial changes in traffic volume for certain alternatives. At almost all interchange locations and under all Build Alternatives, the changes in traffic volumes on any given off-ramp would not be perceptible by bicyclists or pedestrians using the local roadways. For the purpose of this analysis, substantial change is defined as a change in volume generally greater than 180 vehicles per hour, or three vehicles per minute on average. Based on the traffic analysis, the Build Alternatives are not expected to negatively affect pedestrians or bicyclists at the following interchanges: Pedrick Road, Kidwell Road, Old Davis Road, Richards Boulevard, Enterprise Boulevard, Harbor Boulevard, Jefferson Boulevard, Reed Avenue, and West El Camino Avenue. Changes in traffic patterns and bicycle and pedestrian improvements associated with all Build Alternatives could affect pedestrians and bicyclists at two locations: Mace Boulevard and CR-32A.

At the Mace Boulevard interchange area, traffic volumes are forecast to increase by up to 430 vehicles per hour at the westbound off-ramp and up to 220 vehicles per hour at the eastbound on-ramp for Build Alternatives 2 through 5. Build Alternatives 6 and 7 would have no change or a decrease in traffic volumes at the interchange so would not change conditions for pedestrians and bicyclists. The change in traffic volumes under Build Alternatives 2 through 5 would be perceptible to pedestrians and bicyclists. The *Pedestrian and Bicyclist Travel Impact Assessment* concludes that consideration should be given to improving the pedestrian and bicycle infrastructure through the Mace Boulevard interchange consistent with the City of Davis' ultimate bikeway plan for the area. These improvements are described in Section 5.4.3.

All Build Alternatives include a proposed extension of the Yolo Causeway Class I bicycle path along the westbound off-ramp alignment to connect with CR-32A. Build Alternatives 2 through 6 would result in an increase in capacity and overall traffic volumes on the I-80 mainline lanes; however, due to the physical separation between the freeway mainline and the bicycle path, changes in traffic patterns associated with the Build Alternatives are not expected to negatively affect bicyclists using the Yolo Causeway bicycle path.

The new connection from the Causeway path to CR-32A would provide a more direct route for bicyclists and shorten the overall travel distance between the path and CR-32A. The Build Alternatives would extend the westernmost limit of the existing Class I bicycle pathway from I-80 along Yolo Causeway to connect to CR-32A. The pathway extension would be located adjacent to the westbound I-80 off-ramp to CR-32A and would be approximately 12-feet-wide. The area surrounding the pathway extension would be graded to comply with ADA regulations. A concrete barrier would separate the pathway extension from westbound off-ramp vehicular. Once construction of the pathway extension along westbound I-80 off-ramp is complete, the Build Alternatives would conduct pavement rehabilitation from CR-32A to Levee Road. During

pavement rehabilitation activities, Levee Road would be closed. Bicycles would be redirected along the newly constructed pathway extension on westbound I-80 off-ramp to access the existing Class I bicycle pathway along Yolo Causeway. (Caltrans 2023c)

The Build Alternatives would include widening the shoulders of CR-32A from the existing Levee Road path to just east of CR-105 to accommodate a standard Class I bicycle path. In addition, the Build Alternatives would include widening the shoulders of CR-32A from CR-105 to the proposed Class I bicycle path along CR-32A to accommodate a standard Class II bicycle lane. Construction of the Class II bicycle lane would involve widening the shoulders by 4 feet for the Class II 6-foot lane on both sides with standard edge line striping. No barriers would be constructed. Caltrans would coordinate with Yolo County Public Works Department to complete this bicycle pathway design along CR-32A. During the design process, consideration should be given to providing a transition between the Class I and Class II bikeways that provides adequate warning to drivers that bicycles may be crossing the roadway. These improvements would benefit pedestrians and bicyclists using the Yolo Causeway bicycle path. (Caltrans 2023c)

The Build Alternatives would also improve bicycle pathway in several locations by replacing the existing bicycle pathway pavement.

During construction, bicycles would be rerouted and users would not be impacted as required by Caltrans Standard Measure TT-1, which states that pedestrian and bicycle access would be maintained during construction. As part of Standard Measure TT-3, a TMP would include the detour plan. Additional detour information is provided in Section 2.3.2.

5.4.2.2 No-Build Alternative

No change in pedestrian/bicycle facilities would occur under Alternative 1 (No-Build).

5.4.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would not adversely affect pedestrian and bicycle facilities. Standard construction measures would maintain pedestrian and bicycle access during construction. To address construction-related impacts on bicyclists and pedestrians, a TMP would be developed to manage circulation and access during construction. Caltrans standard project features require the contractor to schedule and conduct work to avoid unnecessary inconvenience to the public. The TMP would plan construction in sections, with no more than one lane closed at a time and no successive ramp closures. Bicycle and pedestrian access would also be addressed in the TMP. The contractor would implement a planned public outreach program to keep area residents, businesses, emergency service providers, and transit operators informed of the Project construction schedule as part of the TMP.

Changes in traffic volumes and patterns may present challenges to pedestrian and bicycle users at the Mace Boulevard and CR-32A.

The *Pedestrian and Bicyclist Travel Impact Assessment* (Caltrans 2023c) concluded that consideration should be given to improving the pedestrian and bicycle infrastructure through the

Mace Boulevard interchange consistent with the City of Davis' ultimate bikeway plan for the area. These improvements may include but are not limited to:

- Providing marked crosswalks with pedestrian warning signs and rapid rectangular flashing beacons,
- Reconstructing pedestrian ramps to current ADA standards,
- Restriping Mace Boulevard to provide Class II bicycle lanes, and
- Providing a fixed barrier between ramp traffic and the shared-use path.

Chapter 6 Public Involvement

Efforts to provide opportunities for public involvement have included meetings, online resources, mailings, and press releases regarding the proposed Project, as well as public outreach for related projects and regional transportation programs.

6.1 Public Involvement

Caltrans established a steering committee for the project that included local stakeholders, such as the Cities of Davis and West Sacramento, Yolo County, SACOG, Yolo County Transportation District, UC Davis, Bicycle Coalition, etc. The steering committee held several public meetings within the Cities of Davis, Sacramento, and West Sacramento to discuss the project and receive input from the community.

Three community workshops were organized in an open-house style with large maps of the corridor displayed around the room, as well as several poster boards with contextual information about the Project. In addition to the printed materials, a PowerPoint presentation was on display on a loop and Caltrans staff were present to answer questions. The meetings occurred in June 2018 as follows:

- June 6, 2018, Davis Senior Center, 646 A Street, Davis, CA 95616, 6:00 p.m.–7:30 p.m. (51 Attendees)
- June 14, 2018, West Sacramento City Hall, 1110 West Capitol Avenue, West Sacramento, CA 95691, 6:00 p.m.–7:30 p.m. (19 attendees)
- June 21, 2018, Sacramento City Hall, 915 I Street, Sacramento, CA 95814, 6:00 p.m.–7:30 p.m. (20 Attendees)

During the community workshops, participants were encouraged to share their thoughts and concerns about the Project by filling out a comment card or by using a post-it note to add a location-specific comment to the maps displayed around the room. Comments received from the public included requests for bicycle improvements, resistance to potential toll lane pricing, recommendations for sound wall locations, potential design alternatives, concern for construction impacts to bat species, and other questions regarding project design elements.

The impact of I-80's increased traffic and the increasing rate of cut-through traffic has led to more people using bypasses, exacerbating congestion on Mace and other surface streets (Greenwald 2019). As the Project alternatives evolved, additional meetings were held to keep the public informed and gather more input from stakeholders and community members:

- November 21, 2019, Mary L. Stephens Davis Library Blanchard Room, 315 East 14th Street, Davis, CA 95616, 6:30 p.m.–7:30 p.m.
- February 27, 2020, West Sacramento City Hall, 1110 West Capitol Ave, West Sacramento, CA 95691, 6:30 p.m.–7:30 p.m.

Caltrans filed a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) with the State Clearinghouse on June 7, 2021. An NOP memorandum was filed with the State Clearinghouse on August 17, 2021, to notify that the scoping meeting was rescheduled. Caltrans accepted scoping comments until September 24, 2021. A copy of the NOP is included in Appendix G.

Scoping was noticed through newspaper advertisements that ran in the *Davis Enterprise* on August 18, 2021, and the *Sacramento Bee* on August 23, 2021, and via Facebook, Twitter, and Caltrans' project website. In addition, Caltrans notified members of the community and media through email. Two scoping meetings were held virtually through WebEx on August 25, 2021, at 6:00 p.m. and at 7:00 p.m.

- August 25, 2021, Virtual (via WebEx), 6:00 p.m. and 7:00 p.m.

The purpose of these meetings was to discuss the scope of the EIR and the potential effects of the Project. Each meeting included a brief presentation on the Project and the environmental review process. Attendees were encouraged to submit comments during the meeting or to Caltrans staff via mail or email. The presentation is available for review on the Caltrans District 3 Project website's link: <https://deavpm.wixsite.com/yolo80corridor>. Following the meetings, participants were invited to submit comments and questions about the Project. Participants were also directed to the Project website where they could provide input.

Comments from the public that were submitted during and following the meeting included questions regarding proposed bicycle facilities, project funding, projects in the nearby area, project timing, proposed lane configuration, proposed sound wall locations, and proposed work within the Yolo causeway. In addition, written comment letters included requests to consider potential air quality effects to sensitive receptors, increased flood risks, potential fish passage impacts, Native American Tribal consultation, utility relocation, etc.

Additional public outreach will take place during the circulation period for the Draft EIR, which will include a 45-day public comment period and a public hearing..

6.2 Community Based Organizations

Community-based organizations were included in focused meetings between 2018 and 2020, online scoping meetings in 2021, and the NOP distribution list. Community-based organizations will continue to be included in the planning process and will be given the opportunity to review and comment on the environmental document. Bicycle interest groups such as Yolo Mobility, Bicycling Transportation and Street Safety Commission in Davis, and the Davis Bike Club have submitted comments regarding the Project, with particular interest in connectivity over the causeway.

6.3 Stakeholders

Stakeholders include those whose influence can veto or significantly affect the efforts of the Project, including individuals, community-based organizations, neighborhood groups, and governmental agencies. Because the Project corridor passes through numerous jurisdictions, there are multiple governmental stakeholders (e.g., City of Davis, City of West Sacramento, City of Sacramento, County of Solano, County of Yolo, County of Sacramento, SacRT, SACOG). Caltrans seeks to continue involving stakeholders and provide opportunities to review and comment on the environmental document. In addition to private citizen feedback, Caltrans has received feedback from the Wilton Rancheria, Corps, Central Valley Flood Protection Board, Sacramento County Regional Parks, Sacramento County Office of Planning and Environmental Review, and the Yolo County Transportation District.

6.4 Outreach to Minority and Low-Income Communities

Caltrans has conducted targeted outreach, placed phone calls, and sent letters to community stakeholders. When research was conducted to determine applicable community-based organizations, emphasis was placed on identifying organizations that serve minority or low-income communities. Outreach to minority and low-income communities included distribution of the NOP to neighborhood organizations in minority and low-income communities within the Community Study Area. A copy of the NOP distribution list is included in Appendix A. Minority and low-income communities will be given the opportunity to review and comment on the environmental document.

6.5 Community Participation Program

In addition to the direct public outreach for the proposed Project, community members have also participated in outreach for regional transportation planning efforts that include the Yolo Interstate-80 Corridor Improvements Project and the SACOG Metropolitan Transportation Plan. These more regional efforts included public outreach efforts, and results of those efforts were reviewed by Caltrans to inform development of the proposed Project.

6.6 Results

Comments received from the public during the scoping period and during steering committee meetings were regarding bicycle improvements, potential toll lane pricing, soundwall locations, design alternatives, construction impacts to bat species, and other questions regarding project design elements. These comments will be taken into consideration during the design phase.

Community based organizations and stakeholders will continue to be included in the planning process and will be given the opportunity to review and comment on the draft environmental document. All past and future comments will be taken into consideration during ongoing public outreach, and during analysis of Project alternatives. The Project website is available here <https://dot.ca.gov/caltrans-near-me/district-3/d3-projects/d3-i80-corridor-improvements> and provides the following email address for comments Yolo80corridor@dot.ca.gov.

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Appendix A Public Outreach Materials
